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CANADIAN DRUGGIST

VOL. vii. TORONTO, CANADA, FEBRUARY, 1895 No. 2.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, FEBRUARY, 1895. No. 2.

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription, $1 per year in advance.
Advertising rates on application.

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.
New advertisements or changes to be addressed

Canadian Druggist,
20 Bay St. TORONTO, ONT.

EUROPEAN AGENCY:
BROCK & HALIFAX, Aldermary House, Watling St.,
LONDON, E.C., ENGLAND.

CONTENTS.

Sewing up wounds by an electrical machine is one of the latest advances in surgical technique.

Counsel the Council.

If those who sometimes cavil because they imagine the Council of the Ontario College does not perform reasonably effective work had a clearer insight into the difficulties constantly standing or being put in the way of those acting on their behalf, they would be more willing to offer counsel than criticism.

The council is composed of druggists whose interests are identical with the interests of their confrères. They are assuredly anxious to protect themselves, and must protect all other druggists in doing so. They do not receive any recompense for their services, yet from the lessons of the past they naturally expect considerable adverse criticism and condemnation. They feel that when outside tradesmen become their commercial enemies, those inside should be their friends. They know well that the critic who is not in the council would be in a reverse position were he in it, and they must often feel that their efforts on behalf of their fellows are so ill-requited as to make them wish they never had anything to do with it.

Those who have the general interests of the trade at heart must have realized during the past two or three years that conditions of trade are rapidly changing, and that the change, so far, has not been in their interests. The sentiment of the country is being acted upon in such a manner as to lessen the position of bodies possessing incorporate legislative powers, and under such circumstances we are obliged to submit. While doing so, however, we would fall far short of our duty to ourselves and to one another if we failed to strive unitedly to bring about a betterment of conditions over which we can exercise some influence. Any large body of individuals, united together with a common, definite object in view, can accomplish much if they will exercise their influence persistently and judiciously. The tendency of the day is to combinations; and the druggist of to-day is threatened from just such a source, and will ultimately have to meet the difficulty u, .n equal terms. The council of our college is the executive body through which we can act, if we only advise the course to pursue. Legislation is temporarily in abeyance, and of necessity must remain so. The only hope lies in commercial action—the buying and selling of goods which can be profitably handled and fairly well controlled; the pushing of lines of trade which our location and circumstances will enable us to handle to advantage; the cutting off from our business connection those houses which supply us and betray us at the same time; the circulation amongst ourselves of such information as will enable us to act unitedly and decisively when occasion requires it, and the protection of our own trade as far as possible against the licensing of drug businesses improperly run under the name of a practising physician. All these matters might be regulated under control of council by the appointment of a commercial committee whose duty would be determined by the extent and scope of the work which would devolve upon it.

This is a subject in which we are all interested. We may not all see alike as to a solution of the question, and, if there are others who desire to present their views, we shall be glad, indeed, to hear from them in another issue.

Important Articles.

Analytical chemistry is playing a most important part in the world of science, and the practical pharmacist who would aspire to keep in the front of his profession must devote himself to a study of it in all its bearings.

This month we give our readers the conclusion of an article taken from the *British and Colonial Druggist* entitled "Pharmaceutical Analysis," and also from the same source one on "The Examination of Urine." Next month will be given a paper on "The Bacteriological Examination of Water."

Drug Clerks' Column.

We have received a very interesting set of rules for the guidance of the dispensing clerk from T. W. Richardson, in the employ of Mr. D'Avignon, of Windsor. They will appear in our next issue, and those intending to compete will require to have copy forward for publication at the same time.

We are confident that there are many young men who could furnish a set of rules which would be of very great interest and use to our readers, and we shall be most happy to publish such if sent, and to give credit, as fairly as possible, to whom it is due.

Drug Clerks' Register.

Name.	Employee.	Address.
John P. Hennessey		Hamilton, Ont.
W. S. Scheak	H. S. Case	" "
A. G. Cornyn	H. S. Case	" "

Correspondence.

Editor of the CANADIAN DRUGGIST.

DEAR SIR,—I have had some trouble of late when buying liquids by finding what seems to me to be a shortage in the measure. As liquids are supposed to be sold by the imperial measure, I contend that the pint or gallon is one-quarter larger than the old or wine measure, thusly, old pint, 16 ounces. One-quarter of that —4 ounces—added to 16 ounces, makes one imperial pint, or 20 ounces. Then a pair—8 wine pints —make a wine gallon. Add one quarter gallon, or 2 pints, to make the imperial gallon 160 ounces.

I also contend that to reduce an imperial pint to a wine pint deduct one-fifth —20 ounces imperial pint, 4 ounces would be one-fifth of 20, therefore one-fifth of 20 being 4, and that one-fifth, or 4 ounces, being taken from 20 will surely leave 16 ounces.

About five weeks ago I sent two tins away to be filled. Both came back full.

I keep on hand a *most accurately* measured Winchester. It was measured by one of Whitall, Tatum & Co.'s 8-ounce glass measures up to the 8-ounce mark 10 times, so I measured the contents of one tin. It held only 720 ounces.

If 20 ounces make a pint (B.P., page xxi.), 80 ounces ought to make one-half gallon, and 10 one-half gallons ought to make 800 ounces; but I only got 720 ounces from each tin, and was charged with *ten* gallons, although according to B.P. measurement I only got *nine* gallons. I reported it to the party I got it from, and, although I explained it, they insisted that the tins held *five* gallons each *imperial* measure.

I would be much obliged if you would kindly let me know through your DRUGGIST if the stand I have taken is *right* or *wrong*, and you will greatly oblige me.

1. How many ounces should there be in an imperial pint?

2. How many imperial pints should there be in an imperial gallon?

3. How many ounces should there be in an imperial gallon?

5. When changing a wine pint into an imperial pint, is not one-quarter (or 4 ounces) added?

4. When changing an imperial pint into a wine measure, is not one-fifth (or 4 ounces) deducted from 20 ounces, thus leaving 16 ounces?

Yours truly, DRUGS.

ANSWER.

The writer, while correct in some respects, is entirely at fault in respect to measurement by the process he adopted.

He apparently took for granted that a fluid ounce was the same, whether indicated on a graduate manufactured in the United States or in Great Britain, while, in fact, they are not.

The grain by weight doesn't vary, but the minim does. See below:

1 minim B.P. is equal to 0.91 grain.

1 minim U.S.P. is equal to 0.94 grain.

1 minim B.P. is equal to 0.96 minim U.S.P.

1 minim U.S.P. is equal to 1.04 minims B.P.

So it will clearly be seen that while there are 60 minims in ℥i. in both cases, and 480 minims in ℥i., that the quantity of fluid in the respective ounce measures of the different countries must vary, and, if in ounces, so in pints and gallons.

The variation in the ten-gallon quantity spoken of will, therefore, be about 64 ounces, or within 4 ounces of the quantity he claims to have lost.

Answers to Correspondents.

J.A.A. asks for formulæ for Pil Cochia and Blackberry Brandy.

PIL COCHIA.

R.	Ext. Colocynth Comp.	
	Aloes	āā gr. x.
	Potass. Sulph	
	P. Cambogia	
	P. Scammon	āā gr. v.
M. ft.	Massa et div. in pil.	No. x.

BLACKBERRY BRANDY.

R.	Cassia	¼ oz.
	Cloves	¼ oz.
	Mace	¼ oz.
	Cardamom seeds	1 dr.

Add this to 16 lbs. of blackberries mashed and 5 gallons of 95 per cent. alcohol. Macerate for two weeks. Press it and then add 10 lbs. of sugar, dissolved in 3½ gallons of water, and filter the product.

British Columbia Notes.

It is rather late in the day to refer to the matter, but seldom has there been such an evidence of enterprise as was here this last Christmas on the part of the druggists. The displays were excellent. A new idea, and a triumph of the electrician's skill, was introduced in placing a number of artificial budding flowers among the displayed fancy goods, the buds being prettily colored electric lights. Business here during Christmas was very good; with some stores the cash sales of Christmas eve exceeded those of Christmas eve, 1893, by 25 per cent. and 50 per cent.

January has been enlivened by the departure of the majority of the sealing schooners, and the druggists have been helped by the stocking up of the medicine chests, etc. Now the quietness may be felt by almost every one for a month or so. The weather continues open, and no snow since January 4th, 1895.

The Provincial Legislature is now in session. Among other bills is a bill to amend the Pharmacy Act, 1891. Up to time of writing, this bill has had its *second reading. It provides for a third class* of persons, to be known as "certified clerks"; stipulates that only certificates of examination equal in standing to the British Columbia Pharmaceutical Association Licentiate Examination shall be accepted in lieu of examination here; exempts the members of the association *from jury service. It is not going* to become law, however, without a very severe fight, for the members of the legislature seem opposed generally to legislation of this character. Messrs. Cochrane, Henderson, and Shotbolt are a committee to get the amendments through, and, be it known, Henderson and Cochrane are rustlers, sure. Mr. Cochrane has been over at the House talking with the members almost daily, and would, doubtless, have continued had not his clerk, Mr. Price, decided to seek other pastures. Mr. Shotbolt, owing to a badly sprained ankle, cannot canvass the members to any extent, being confined to his store.

Unfortunately, a young gentleman who has a grievance with the British Columbia Pharmaceutical Association is working hard to stop the passage of the bill referred to. It seems that this young man left this city after having served his apprenticeship, and went to Chicago, where he attended a course of lectures at the Illinois College of Pharmacy, receiving a diploma. He omitted to take the State Board Examination of Illinois, and on his return here the local association informed him that he must take the examination of this province. He declined, and on the advice of his lawyer has taken the above course. Lengthy letters *pro* and *con* his case generally, but particularly on the relative merits of state board examiners, college diplomas, and "practical experience," have appeared this last week in the *Colonist* newspaper. This paper, in an editorial, spoke out plainly against some remarks made in the House during the discussion on the second reading, and the almost ridiculous bill introduced by one Sword to *repeal the Pharmacy Act of 1891*. That this latter bill will be knocked out goes without saying, but just what will be the outcome of this unfortunate disagreement between the young man and the British Columbia Association is more than your correspondent can say.

Trade Notes.

G. E. Buttler, druggist, Toronto, has made an assignment.

Mr. Cowie is starting a new drug business at Edmonton, N.W.T.

A new drug store is being opened at Portage la Prairie, Man., by John Hill.

A. J. Hunter has sold his drug business at Everett, Ont., to C. M. Kingston.

G. H. Williams, formerly of Revelstoke, B.C., has opened a drug store at Three Forks, Oregon.

W. J. Flemming & Co. have purchased the drug business of White & Co., Prince Albert, Saskatchewan.

The Dominion Glass Company, Jos. Barsalon, President, has registered in the Tutelle office, Montreal.

Henry Procter has sold his fourth interest in the Crescent Pharmacy, Nanaimo, B.C., to F. C. Stearman.

N. I. McDermid has moved his drug business from his old stand to the corner of Dundas and Wellington streets, London, Ont.

John W. Bunting, who for some time had a drug business on Wellesley Street, Toronto, Ont., died at Pickering, Ont., February 7th.

H. Proctor, formerly in business in Nanaimo, B.C., has purchased the drug store at the corner of Queen and Bathurst streets, Toronto, Ont.

Nova Scotia.

During the week which marked the funeral obsequies of our late Premier, the influx of strangers to Halifax was very large, the drug fraternity being well represented by members from all parts of Nova Scotia and the neighboring provinces of New Brunswick and Prince Edward Island. On the return of the island contingent, the S.S. *Stanley*, by which they intended taking passage, was detained at Pictou by stress of weather, and in the words of one of their number, "There are twenty-three of us islanders, all told, detained at Pictou by a furious snowstorm, some of us rather jolly, under adverse circumstances, *a la* Mark Tapley."

Among the representatives we noticed Mr. D. Reddin, of Reddin Bros., of Charlottetown, who was his usual self, and amusing his friends with flashes of wit. With his characteristic energy, Mr. Reddin secured tickets for all the functions of the week. We rather think Denny was glad he came to Halifax.

Dr. A. D. McGillvary, of Sydney, C.B., was also among the visitors to the city last week. The doctor's visits to the metropolis are not of very frequent occurrence.

Mr. R. D. Stiles, of Pictou, was another in the list of visiting druggists, as was Mr. Wm. Crowe, of Crowe Bros., Truro.

Mr. George V. Rand, the well known druggist of Wolfville, who, we regret to say, met with a serious accident at his home some few weeks ago, by falling down stairs, is somewhat improved, but still not by any means completely recovered.

Mr. Hugh E. Calkin, formerly in the employ of Simson Bros. & Co., Halifax, has purchased the business of R. O. Christie, of Springhill, and will carry on same at that place. Mr. Christie intends opening a drug store at Little Glace Bay, C.B. We trust both the gentlemen will meet with success in their undertakings.

Mr. W. A. Canfield, formerly in the employ of W. H. Hills, Acadia Mines, has secured a position with Simson Bros. & Co.

Mr. E. J. Phelan, who was for some years with C. A. Sterns, of Apothecaries' Hall, Halifax, has gone to Glace Bay to fill a vacancy in the store of Senator Wm. McDonald at that place.

Mr. Alfred A. Patterson, for some time buyer for Simson Bros. & Co., at present seeking health in South Africa, is writing very entertainingly of his adventures in that country, and his letters are appearing in the Halifax *Herald*. This Halifax boy is now located within fifteen miles of Compasberg, the highest point of the cape, lying in the Sneeuwberg mountain range, and where the atmosphere is so clear that the formation of the boulders on the mountain side can be distinctly discerned at a distance of from fifteen to twenty miles. Mr. Patterson reports his health improved, and weight increased.

Prince Edward Island.

Hitherto agents of the wholesale drug houses of Montreal have usually paid their first annual visit to Prince Edward Island not earlier than the months of May or April. 1895 initiates a new departure. Mr. David Watson, jr., of Messrs. Kerry, Watson & Co., arrived in the last week of January, and some of his fellow-travellers from Montreal are so near, upon the mainland, that their advent is daily expected. If an experiment is being made, one can scarcely refrain from predicting a failure, for the island druggists have to buy in the autumn a full stock in case of complete isolation in winter, and, as a result, their wants are small in midwinter, and these wants are immediate ones. The uncertainty of freight rates, as well as the date of arrival of goods ordered, cannot but militate against the success of the venture, which even the Halifax wholesale houses have not been brave enough to essay, although they have the advantage over their Montreal competitors of closer communication.

Montreal College of Pharmacy.

At the College of Pharmacy recently, instead of the regular lecture on materia medica, Prof. T. D. Reed gave a lecture on the use of the microscope by pharmacists and chemists. A large number of instructive and beautiful objects were shown under a series of microscopes, the purpose being to bear out the recommendation of the microscope as an instrument of recreation, instruction, and practical utility; also for the purpose of exhibiting specimens to the audience, objects which had been photographed were shown by the projection lantern and limelight. Among those present were D. Watson, J. E. Morrison, E. Muir, and a large number of students. Mr. Watson, the president, on moving a vote of thanks to Dr. Reed for the entertaining and instructive lecture and demonstration, which all had enjoyed, stated that the college was adding to its appliances the instruments necessary for the teaching of pharmacy according to advanced modern science. The present session is one of the best in the history of the college, ninety-three students having been enrolled.

Pharmaceutical Association of the Province of Quebec.

PRELIMINARY EXAMINATIONS.

The preliminary Board of Examiners held their quarterly examinations in Montreal and Quebec on Thursday, Jan. 3rd, when thirty-five candidates presented themselves in Montreal, and four in Quebec, and of these the following, named in order of merit, passed, and are entitled to be registered as certified apprentices, namely: A. G. Lapointe, E. W. Jacobs, B. Rogalsky, J. E. Dagneau, F. J. Lemaistre, R. O. Dumont, J. A. Langlois, H. Généreau, W. E. McKee, C. F. Covernton, and Raoul Grignon. The following candidates passed in all subjects but one, namely: James A. Gillespie and G. A. Ricard, Latin; W. J. Shea, Geography. The remainder of the candidates are referred back for further study.

The examiners were Professors A. Leblonde de Brumatt and Isaac Gammell, with Mr. A. Lakin acting as supervisor in Quebec. The next examination will take place on the 4th of April, and candidates are required to give the Registrar, Mr. E. Muir, ten days' previous notice of their intention to present themselves.

An Elegant and Brilliant French Polish.

De la Rogère gives the following as the formula for a polish for woods, which has a magnificent and unrivalled brilliancy: In 1,500 parts of alcohol of 94° dissolve 30 parts sulphuric ether, 25 parts lavender oil, 25 parts spike oil, 30 parts boric acid, 7 parts camphor, 30 parts hard copal, 100 parts sandarac, 365 parts shellac, 30 parts benzoin, 30 parts balsam copaiba, and 5 parts tincture of cinnamon. This polish may be applied with the pencil, or with the polisher's "daub" (a ball of cotton covered with silk or linen). No oil is used on the latter when thus applied.—*National Druggist.*

Pharmacy in England.

German Competition in Surgical Instruments—A Physician dispenses a fatal dose of Strychnine for Himself—A Monopoly of the word "Medical" Sought for—New Examiners of the Pharmaceutical Society—Tea Tablets.

(From Our Own Correspondent.)

There is just now something like a flood of German instruments and sundries being introduced to the drug trade in England. Clinical thermometers are being offered in nickel cases at $.40 per dozen, which is surely "rock bottom." Besides this there are binaural stethoscopes selling at prices fully 50 per cent. lower than only a few years ago. The patent of a well-known firm of manufacturers of seamless enemas having expired, there are any number of imitations on the market. Most of these it is quite incorrect to describe as "seamless." They certainly appear so on a cursory inspection, but closer examination shows that it is only the heavy enamelling on the surface that hides the seams. In addition to these, the antiseptic era of surgery has proved a fine opening to the German instrument manufacturers, and these goods are being largely manufactured in one solid piece of steel, or in such a manner that they can easily be taken to pieces and sterilized. All the leading hospitals are adopting sterilizers or autoclaves, by means of which instruments, bandages, etc., can be effectually sterilized by heat. Some of these pieces of apparatus are very elaborate and very expensive. The large-sized sterilizers are fitted with safety valves, tubalures for thermometers, etc., and frequently cost as much as $50 to $100. Simple copper cases for scalpels, small aseptic knives, etc., are made so that they can be placed over a Bunsen burner and heated to redness. As the scalpels and knives are made of solid steel, very effective sterilization can thus be assured, whilst no deterioration takes place. One of the greatest drawbacks to the use of antiseptic and germicidal solutions, such as corrosive sublimate and sal-alembroth, was the corrosion of the instruments. Sterilization by heat is quite as effective, and without this serious drawback. With regard to the cheap clinical thermometers alluded to above, it should be noted that these catch lines are frequently of very inferior quality. The inaccuracy of clinical thermometers is notorious, and an examination of a number a few years ago indicated that the graduation was so incorrect that readings were frequently more than a degree or two out. *The Lancet* recently raised a protest against "half-minute" clinical thermometers. These quick reading thermometers are misleading, according to *The Lancet*, as the mere opening of the mouth to introduce the instrument reduces the temperature so much that, at the expiration of half a minute, the full temperature is not restored.

The accidental death of a doctor in London is reported as being due to his inadvertently taking an overdose of a strychnine mixture for neuralgia. He was a particularly handsome man and always immaculately dressed, and yet it was not his first mistake in dispensing. It is related that some time ago he was observed rushing hatless from his surgery in order to overtake a patient. It transpired that he had doubled the quantity of medicine, but forgotten to alter the dose. With regard to his last fatal error, by which he lost his life, it is exceedingly probable that he had the whole of the strychnine dissolved in a glass measure ready to put into the mixture bottle. He was called away from the dispensing counter for a moment and on his return raised the measure to his lips and drank the contents, thinking it was a measured dose from the medicine bottle. He lingered for nearly an hour, and his death was most painful, owing to the continued tetanic spasms, which, in spite of medical assistance, were uncontrollable. It is surely the irony of fate that the deceased doctor was the author of an article, published in a medical journal only a year or two ago, advocating the advantages of a special and distinctive bottle always to be employed for poisons.

A precious bill has just been introduced by the British Medical Association, in order to secure the monopoly of the word "medical." Thus it is laid down as a penal offence for any one, not a legally qualified medical man, to assume, use, or take the title medical practitioner, medical specialist, medical dispenser, medico-herbalist, medico-electrician, and so on. The penalty, therefore, which a pharmacist would incur if he should dare to call himself a medical dispenser (which is just what he is), or his pharmacy a medical hall, is the liability to imprisonment for twelve months. It need hardly be said that there is not the remotest chance of the bill ever being passed by Parliament, but it is a fine specimen of the cool assumption of some of our notoriety hunting medicos. It must be admitted that the medical profession suffer considerably from the illegitimate practise of medicine by persons totally unacquainted with the subject. But a body that cannot agree to let nurses be properly examined and registered without showing a degree of jealousy, which has made it a laughing-stock, is hardly to be encouraged in the endeavor to secure anything further in the way of a monopoly.

The introduction of professional examiners on the Examining Board of the Pharmaceutical Society has had no appreciable effect on the number of passes and failures. It is rumored that Professor Green is particularly severe, although it is not stated whether his own students at Bloomsbury Square, with whom he is immensely popular, experience the same severity. The character of the examinations cannot fail to be improved by the addition of these professors to the Board, and they are naturally more in touch with students, and understand the requirements which a student should be able to satisfy better than pharmacists who have left their schooldays long behind. The new examiners include Professor Percy Frankland, F.R.S., of Mason's College, Birmingham, and Professor McLeod, of Cooper's Hill College, who will take chemistry at the London examinations, and Professor J. Gibson, of the Heriot Watt College, at Edinburgh. Professor Green, D.Sc., M.A., of the society's school, and Mr. A. C. Seward, M.A., Lecturer and Examiner at Cambridge University, will take botany in London, and Professor Patrick Geddes, of University College, Dundee, will examine in the same subject in Edinburgh. The Pharmaceutical Society is certainly fortunate in obtaining the services of such eminent men, as the emolument is not large. Travelling expenses are, of course, allowed, but the fees are only $16 per diem, and the examinations now only run into some twenty days in the year.

Some time ago I mentioned the introduction of compressed tablets of tea by Messrs. Burroughs, Welcome & Co., and there is no doubt that they have "caught on" with the public, and particularly with the travelling section. Special care is taken to select the tea leaves and remove the mid-rib, after which it is crushed and compressed. When infused in a cup of boiling water, preferably by means of a patent straining-spoon, a capital cup of tea is produced in a few moments. I understand that Messrs. Burroughs, Welcome & Co. have had to have special tabloid machines erected for the purpose, and the demand for the tablets is sufficient to keep four or five constantly going. The latest idea, introduced by the Terrabona Company, is decidedly novel, and a step in advance. They have introduced packets of tea, milk, and sugar combined, and the ingredients, sufficient for at least three cups of tea, are enclosed in a gelatine wrapper. The use of the gelatine covering is still further claimed as a novel improvement, as it is stated to precipitate the tanning from the tea. This latest novelty is put up in packets, to retail at two cents each, and supplied to druggists at $2.16 per gross, and it is claimed that it will prove a boon to tourists and travellers. The invention is duly protected by patent, and as an attractive novelty will doubtless command a ready sale.

SALUBRIN, a specialty prepared in Switzerland and recommended as a strong antiseptic and hæmostatic, is said to consist of about 2 parts of acetic acid, 25 parts of acetic ether, 50 parts of alcohol, and 23 parts of water. It is used as a dressing for wounds.

SUBLIMOPHENOL.—By bringing together equal molecules of mercuric chloride and potassium carbolate, and gently heating the solution, a brick-red precipitate, which passes through yellow to white, forms, consisting of a mixed chloride and carbolate of mercury. This has been termed sublimophenol. Washed, dried, and dissolved in boiling alcohol, it forms, on cooling, colorless crystals.

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Practical Hints on Pharmacy.*

By Chas. L. Weidler, Ph.G.

This paper is made up of ideas, some original and some not. The object is to give a few practical hints which the writer has found by experience to be thoroughly practical and up to date. In these days of progression and sharp competition, it is necessary for one to be fully awake and take advantage of every little thing. People like to see a druggist who is progressive, and it is the best kind of an advertisement for people to say, "Well, I like to deal at Mr. Z.'s store; he always has something new to show or tell, and he is thoroughly up to date." This paper deals, however, with subjects behind the prescription counter rather than with those in the front.

Every druggist has, of course, his practical ideas worked out in some form, but perhaps there are some hints in this paper that will be of service to him. What may be of use in one store is not necessarily true of others, but it is hoped that all will be of some value to every one.

Always send a repeated prescription out in a new dress. A repeated prescription with soiled label shows carelessness and lack of attention to details Prescriptions, above other things, should be faultlessly put up.

All prescriptions, when finished, should be checked off by another prescription clerk. The ingredients, quantities, weights, measures, and labels, should all be called off by the compounder, each little point being noted. This is the only way of insuring absolute accuracy. This has been the means on innumerable occasions of saving the druggist's reputation. A case that recently happened will bear repeating. It was a murder trial in New York, and the prescription called for quinine sulphate and morphine sulphate, the latter in doses of $1\frac{1}{6}$ grain each, in capsule form. The patient died, and, as there were peculiar circumstances attending the death, a chemical examination of the contents of the stomach of the dead body was made. Morphine was found in such quantities as to leave not the slightest doubt but that she had died from morphine poisoning. The druggist was brought to trial, charged with criminal negligence in compounding prescriptions. On the witness stand it was proven that all prescriptions in that store were checked off by another prescription clerk, who had examined the bottles, weights, etc., and found them correct. It is needless to state that the druggist was fully exonerated, and in the end the affair was of decided benefit to him. All the proceedings were known to every one, and when the true facts of the matter became public property customers showed their confidence in his ability and carefulness in a substantial manner. It was subsequently proven that the morphine that caused the death of the patient was administered by the prescriber, who later paid the penalty for the crime.

Mucilage of Acacia when allowed to stand for some time changes in composition, due to a fermentation that sets up. The preparation may be kept indefinitely by using chloroform water. I do not think any physician could object to chloroform being there, as it is present to the extent of only one-half of one per cent.

In making infusion of digitalis, it has been shown that cold water is preferable to hot water, in that less coloring matter and more colorless active principles are dissolved. In the following formula it has been found that the product keeps a month longer, while with the official product a decomposition sets in in three or four days. Dr. H. C. Wood, Professor in the University of Pennsylvania, states that there is no therapeutic objection to the use of ammonia water in the quantity and manner used. The formula is as follows:

Digitalis leaves, bruised	120 grains.
Water	14½ fluid ozs.
Ammonia water	90 minims.
Alcohol	1 fluid oz.

Macerate for one hour, agitating occasionally, express, wash residue with water filter. To the 14½ fluid ounces add 90 minims ammonia water, 1 fluid ounce alcohol, and sufficient water to make the product measure a pint.

In making the Tincture of Catechu or the Compound Tincture of the Pharmacopœia, gelatinization always results after a time. This is overcome by the use of logwood to the extent of ten per cent. There can be no therapeutic objection to its use.

This time in the year there are frequent calls for a good gargle. One largely used in the East and a most excellent preparation is composed of the Compound Infusion of Rose Leaves, with Tannin and Chlorate of Potash.

Ammonia Carbonate, as it is generally kept in the drug store, quickly loses its carbonic acid gas and ammonia, resulting in a white opaque mass or powder. In making the aromatic spirits of ammonia it is necessary to use the white translucent masses; hence the importance of keeping Ammonia Carbonate in its proper condition. An excellent plan to adopt is to keep it in a stone jar provided with perforated false bottom. A small quantity of concentrated ammonia being kept in the bottom all the time will insure a first-class chemical, the liberation of the ammonia gas from the water supplying that lost by the carbonate.

Prescriptions calling for soft elastic capsules containing liquids are received frequently, and every druggist, when it is practical, should put up his own capsules. There is a firm now who get up an apparatus for filling capsules, they supplying the capsules with the apparatus. The capsules are so shaped that an end can be cut off, the liquid dropped in from the apparatus, and the open top can be easily covered. It is an ingenious idea, and so simple that expertness comes with the first few trials. A prescription calling for two dozen capsules could easily be made in twenty minutes, affording a profit proportionately much greater than when capsules already put up are dispensed.

Adeps Lanae Hydrosus is the official Lanoline and contains 30 per cent. of water. It is far cheaper to buy the anhydrous Lanoline and mix the water with it yourself.

Chloroform is now made so pure and so cheaply that the Pharmacopœia, recognizing this fact, has discarded the former official chloroformum venale. Notwithstanding this fact, there are still two kinds in commerce so-called, pure and impure. The modern process for its manufacture yields the remarkable amount of 167 per cent. of pure chloroform from 100 per cent. of original material, or, in other words, one hundred parts of acetone will yield one hundred and sixty-seven parts of pure chloroform; thus making it entirely unnecessary to purchase so-called commercial chloroform at the price of the pure and pay a higher price for that labelled pure, when they all come from the same original container.

Regarding excipients, there should always be a little jar of glucose syrup, and one each of glycerite of starch and tragacanth; also a variety of one ounce bottles with pipette in cork, containing, variously, water, mucilage of acacia, glycerine, and syrup. For dusting powders, there should be a number, all in two ounce wide mouth bottles with sprinkler top, containing, respectively, powdered licorice root, starch, lycopodium, powdered acacia, and powdered carbonate of magnesia. These could be arranged conveniently on one shelf on the prescription counter, and will be the means of saving much time, trouble, and many steps.

Every prescription counter should be supplied with a powder board for folding powders on, one, say, seventeen by twenty inches would be sufficiently large. Have the surface smooth and well varnished. The average prescription counter is always a little soiled, and rarely presents a perfectly smooth surface. This little device, if kept within easy reach, will be found a necessity.

An ingenious device recently put on the market by a Boston house is an ointment slab or block composed of several layers of parchment paper. The idea is that after the ointment is mixed on the top sheet this can simply be torn off and thrown away, saving much time, as it does away with the usual porcelain slab and its frequent cleaning. Some ointments may be too stiff to work with advantage, but they can be easily softened. In the way of a spatula for use with ointments that act on metal there is quite an ingenious one gotten out by another Boston firm. It consists of a steel blade thoroughly coated with gutta percha, forming altogether a very useful utensil, combining all the advantages of the ordinary spatula with none of its disadvantages.

*Read before the O.S.P.A., 1894.

For poisonous drugs, there is the poison closet, a very safe necessity. An excellent plan is to have on the door a table of doses, maximum and minimum, with antidotes, For weighing poisonous drugs or chemicals, we have the specially delicate balance. This should never rest *on* the prescription counter, but so supported as to be entirely free from all jarring, which is almost as detrimental to the life of a good balance as careless handling.

There is always a certain place in the drug store reserved for drugs, chemicals, and odds and ends that are only occasionally called for. An excellent plan to adopt when the number is large is to have a book properly indexed, and have all alphabetically arranged. This saves much time and annoyance, as we all know how exasperating it is to have a call for something and know you have it, but can't just remember where it is. You don't like to keep the customer waiting, or he won't wait, so a sale is lost.

A good scheme for keeping track of the cost of and date of purchase of certain goods generally kept in drawers is to have a tin slot frame made suitable to receive an ordinary stiff card, which can be slipped in properly marked when the drawer is refilled.

Last, but not least—a place for everything and everything *always* in its place. There is nothing so annoying as to be in a hurry and going to look for something, to find the place where it always has been kept occupied with something entirely different.—*Pacific Drug Review.*

Pharmaceutical Analysis.

(Continued from page 22, January 1895.)

SOME SPECIAL TESTS FOR DRUGS AND CHEMICALS.

SULPHATE OF ZINC.—Boiled with excess of caustic potash it should entirely dissolve. A blue coloration on the addition of ammonia indicates copper. Add sulphydrate of ammonia; if white precipitate, the sample is free from iron. Should the precipitate be gray or dark in color, it indicates the presence of iron.

SCAMMONY.—Starch may be detected by adding tincture of iodine to a little of the powdered scammony shaken up with boiling water, and allowed to cool. If it turns blue, it indicates the presence of starch. If adulterated with common resin or guaiacum, the addition of sulphuric acid will turn it red; if the latter alone, it will change to green on mixing with water. It should not change on the addition of chloride of soda or perchloride of iron. The presence of jalap resin may be detected by shaking up scammony with ether. Jalap resin remains undissolved.

SPIRIT OF NITROUS ETHER.—Should have a specific gravity of 0.840 to 0.845; should not effervesce, or but feebly, when shaken up with bicarbonate of soda. The presence of aldehyde is indicated by a brown coloration on heating with caustic potash. It should yield not much less than five times its volume of the gas on keeping. The spirit may be tested with accuracy by the nitrometer, or the following simple method. Prepare two solutions as follows:

No. 1.

℞.—Sodii hyposulph..... gr. iv.
Sodii chloridi..... gr. xl.
Potass. iodid..... gr. xx.
Aq. ad..... ℥ ii.
Solve.

No. 2.

℞.—Spt. æther. nitros. ..... ℥ ii.
Acid. sulph. dil. ..... ℥ i.
Misce.

Place No. 1 solution in a small porcelain dish—a two-ounce ointment pot will answer the purpose. Pour into this ℥iss of No. 2 solution, and stir till effervescence ceases. The mixture should be free from iodine color; if not so, the spirit of nitre is stronger than should be used; if no iodine has remained free after the effervescence has passed off, add another ℥ss of the No. 2 solution. This should now produce a permanent brown color, if the spirit of nitre is up to its normal strength. If a second addition of ℥ss (total ℥iiss) is required, it is below its normal, but not unfit for use; but if this second ℥ss fails to produce a permanent brown color, the spirit of nitre is too weak to be sanctioned.

VOLATILE OILS.—Volatile or essential oils are sometimes adulterated with fatty oils, resins, balsams, and alcohol, etc. A spot of the sample placed on paper and allowed to evaporate should leave no grease behind if pure. If diluted with alcohol, on shaking up with a few small pieces of chloride of calcium the chemical will become partly dissolved.

WAX.—Boil a small quantity of beeswax with water, any mineral impurities present will settle to the bottom. Add a few drops of tincture of iodine to the water in which the sample has been boiled, and, if it turns blue, it proves the presence of starch. Resin and fats may be dissolved out, if present, by shaking a portion of the wax up with chloroform. If more than 25 per cent. be dissolved, it indicates adulteration.—*British and Colonial Druggist's Diary.*

A Local Remedy for Diphtheria.

Professor Loeffler, of Greifswald, the discoverer of the diphtheria bacillus, has suggested a new remedy for the disease. The mixture recommended is said to consist of alcohol, 60 parts; toluol, 36; and solution of ferric chloride, 4. Menthol is added to deaden the pain caused by the application, which is effected by means of pieces of wadding, the affected parts being at first treated every three or four hours. Of seventy-one patients treated by this method from the outset, all have been saved, while only one death occurred out of twenty-six cases treated after the second day of the attack.

Oil Emulsions.*

By STEPHEN J. CLARK.

In making a good oil emulsion, it has always been considered by pharmacists in general as an operation requiring a skillful manipulation, and to manage the operation so as to be successful in producing a perfect emulsion in every case was considered a high accomplishment by the ordinary pharmacist. The pharmacists of this country have paid too little attention to making first-class emulsions. Physicians, as we all know, very seldom prescribe oil, gum, and water in their proper proportions. Consequently, the pharmacist is compelled to use his own judgment in dispensing a perfect emulsion. Emulsions are deserving of a great deal of attention. In fact, the physician, as well as the pharmacist, should be more familiar with this class of preparations.

Two methods are employed in the manufacture of such emulsions. One consists in making a thick mucilage, to which the oil is added gradually in small proportions until it is all thoroughly incorporated, and lastly, the other ingredients. The second method, which is, no doubt, universally employed in the leading pharmacies of this country, and its process, most all druggists are well versed in. Nevertheless, to accomplish a perfect success, I wish to suggest and impress a few very important points on this subject.

First of all, cleanliness, like in all other manipulations, is one of the agents which should never be lost sight of, and especially so in this case. A most convenient and advisable shape of a mortar employed during this process is one of a shallow form with a flat pestle properly adjusted to its shape. The powder, should be of absolute purity, should be placed into the mortar, its dust covering the sides of the vessel, keeping the oil from greasing them. Now, the oil should be added in the proportion of one to two of the gum, and, after being well mixed, add a certain amount of water. Most any apprentice, after following these rules, should be able to turn out a first-class preparation. As it is in these days of progress, druggists should provide themselves with an emulsifier, which would be a very useful machine to them if they are in a community where emulsions are very frequently prescribed. A perfect emulsion should be as white as milk and its fat globules too small to be visible to the naked eye. In fact, it should be a homogeneous compound.—*Pacific Drug Review.*

IODOPHENOCHLORAL.—This is a mixture of equal parts of tincture of iodine, carbolic acid, and chloral hydrate, and has been recommended as an application in certain skin diseases. The brown liquid must be carefully preserved.

*Read before the O.S.P.A., 1894.

The Examination of Urine.

The importance to pharmacists of a general knowledge of urinary analysis is now universally admitted, whilst increased attention is being paid to the subject by the medical profession. The tendency, therefore, should be, and in a measure is, towards the busy practitioner and consulting physician depending more and more upon the chemical training of the pharmacist to relieve them of detail work, for which they have neither time nor inclination. A recent edition of a standard work on the subject contains the following: "No account of the method of making standard solutions will be given, as this preparation requires a greater knowledge of chemistry than is usually possessed by the clinical (medical) student. For the same reason, no details have been introduced which require the use of a balance." This absence of chemical training in the average medical man is surely the pharmacist's opportunity. Moreover, the cultivation of this branch of analytical chemistry cannot fail to improve the status of pharmacists, as well as prove an extra source of remuneration.

It is the object of the present article to give, in a concise manner, an outline of some of the methods which have been proved in practice to be most useful and convenient. Although the matter will be largely selective, the opportunity will be taken to draw attention to some of the latest tests, and also to recent developments in physiological chemistry.

A caution may well be given here against the employment of single tests—a method of analysis much employed by medical men, but which is often unreliable. The pharmacists should always employ two or three controlling tests, and so make sure of his results.

It will be more convenient, perhaps, to divide the subject into "General Qualitative Examination," and "Quantitative Determination of Constituents."

GENERAL QUALITATIVE EXAMINATION.

This is best conducted, according to a definite plan, as follows: 1. Note the color, opacity, and translucency of the sample. 2. Ascertain the specific gravity and volume. 3. Reaction to test papers. 4. Test for albumin. 5. Test for sugar. 6. Test for biliary salts and pigments. 7. Examine the sediment, both chemically and microscopically.

COLOR.—The normal color of urine may be affected by disease, or by the ingestion of drugs. In diabetes, hysterical affections, anæmia, etc., the urine is usually very pale. Dark-colored urine may be due to fever, biliary pigments, blood, etc. If due to fever, the specific gravity will be high, the volume excreted small, and the presence of urobilin highly probable. Urine containing blood from the kidneys has a smoky-brown appearance, and deposits a sediment of pigments and blood corpuscles. Santonin, rhubarb, and senna give orange-colored urine, rendered red by the addition of alkali. Logwood internally communicates a reddish tinge, and carbolic acid and creosote turn the urine blackish. Healthy urine is quite clear when voided, but on standing a small quantity of mucus and urates are frequently deposited.

VOLUME.—If the whole of the excretion of twenty-four hours has been sent, it should be measured and recorded. The average amount passed daily in health is about 1,500 c.c., or 52 fl. ozs., but it varies widely. The amount is considerably increased in diabetes, where the excessive thirst is one of the distressing features of the disease. In fevers the volume is very much reduced.

SPECIFIC GRAVITY.—This is ascertained by the form of glass hydrometer known as urinometer. It is as well to check the accuracy of this little instrument by means of the ordinary specific gravity bottle. Frequent errors are made in taking specific gravities. The temperature of the liquid should be 60° F. (15.5° C.), and the eye on a level with the surface of the urine. The degree should then be taken which coincides with the lower edge of the capillary elevation. Normal urine varies from about 1.015 to 1.025. Lower gravity than 1.010 occurs after drinking fluids freely, or as the result of cold diuretics, etc. High gravity may be due to excess of urea or sugar. Note that a low specific gravity may sometimes occur even in diabetes, as shown last year by Sir Edward Sieveking.

REACTION.—Urine is usually acid from the presence of acid sodium phosphate; rarely from free acids. After a full meal it is frequently alkaline. In acute diseases it is often highly acid. Excessive alkalinity may be due to the administration of alkalies or to decomposition, when urea has been converted into ammonia. To determine which of these two may be the cause, red litmus paper should be immersed in the sample, and gently warmed until dry. If fixed alkalies are present, the test paper remains permanently blue.

ALBUMIN.—A large number of tests for the detection of albumin in urine have been proposed. Many of these are excessively delicate, perhaps too much so, as they generally precipitate other substances as well. In acute fevers albumin is often present, but disappears after the fever has subsided. The most serious form of albuminuria is known as Bright's disease.

Heat and Acid Test.—Filter a small quantity of the urine, if not bright and clear. Fill a test tube two-thirds full with the sample, and heat the *upper* part of the urine until it boils, and then add two drops of strong acetic acid. Any coagulation or cloudiness, which is permanent, is due to albumin, whilst a turbidity, which might be due to precipitated phosphates, will be dissolved by the acid. The only possible error is the precipitation of mucin in neutral or alkaline urine. If the sample is acid, and has stood some time, all the mucin will be separated by filtration. If neutral, or alkaline, it should first be carefully acidified and filtered, or tests for mucin may be tried.

Cold Nitric Acid Test.—A delicate method is that suggested by Sir William Roberts. One volume of concentrated nitric acid is mixed with three volumes of a saturated solution of magnesium sulphate. Place a small quantity of this solution in a test tube, and add the urine very carefully from a pipette, inclining the tube so that the urine flows gently on to the surface of the denser liquid. If albumin be present in considerable amount, a white zone is formed at the junction of the liquids, whilst, if only traces are present, it may require to stand some time before a haze appears. The test is not so satisfactory as the heat and acid, as uric acid and urea nitrate in concentrated urine may react, whilst copaiba, balsam of tolu, etc., taken internally, give a similar appearance to albumin, but redissolve on shaking with more acid or some alcohol. The test of acidulating with strong nitric acid, and boiling, although in very common use, must be condemned. It is almost certain to convert a large proportion of the albumin into soluble acid-albumin, which is not precipitated on boiling.

Picric Acid Test.—A saturated solution is employed. Coagulation takes place at the point of junction if the contact-method as above described is used. This is increased by rotation of the test-tube. It should be carefully noted that picric acid precipitates peptones and alkaloids as well as albumin. On heating, however, the former bodies redissolve.

Trichloracetic Acid Test.—A very sensitive reagent, detecting 1 part of albumin in 100,000 parts of urine. It precipitates alkaloids, but they dissolve again on adding excess of the reagent. True peptone is not precipitated, but proteoses or albumoses (intermediate bodies between albumin and peptone) are coagulated, but redissolve on warming.

SUGAR.—When testing for sugar, it is very advisable to remove any albumin that may be present by boiling and acidulating with acetic acid and subsequently filtering. Urates should also be filtered out if in considerable amount, or the urine decanted.

Fehling's Test.—This test is so well known as to require but little description. The pharmacopœial solutions may be employed, and it should be remembered that if kept ready mixed it is liable to reduction in time, and so prove unreliable. This is easily ascertainable, as it should undergo no change when boiled. Fill a test-tube about one-fourth full with the test solution, and boil. If no change occurs the test is reliable, and a few drops of urine should be added and the contents boiled again. If there is still no alteration, continue adding a little more urine and boiling until an equal volume of urine has been added to the test. If no precipitation has taken place, sugar is absent. In many instances, however, a change takes place giving a greenish-color

and a deposit occurs. Uric acid, creatinine, and other constituents, may occasion this. But this is very different, and cannot be mistaken for the orange or red suboxide or copper which is quickly precipitated when diabetic urine is tested.

Phenylhydrazin Test.—Since the elaborate researches upon the sugars by Emil Fischer, this test has come into prominence. It is considered reliable for the purpose of distinguishing urine containing traces of sugar from those containing excessive amounts of other reducing bodies, such as uric acid, etc. As modified by Richter, this test is as follows: Phenylhydrazin hydrochlorate, 2 parts; sodium acetate, 3 parts; water, 20 parts. Mix equal volumes of the urine, and test and digest for 1 hour on a water-bath, replacing water lost by evaporation. After fifteen to twenty minutes there is a separation of slender yellow needles, and at the expiration of an hour about 80 per cent. of the glucose has been converted into the phenylhydrazin compound. The needles may be filtered off, washed, dried, and dissolved in boiling alcohol and reprecipitated by water. They melt at about 204-205°C., and their feathery appearance under the microscope is very characteristic.

Biliary Salts and Pigments.—The presence of bile in urine usually communicates a dark-brownish color to the excretion, which is made deeper brown by the addition of alkali. Commercial peptone, consisting largely of albumoses, is a delicate test for bile salts.

Flesh peptone should be dissolved in distilled water, in about the proportion of 2 grammes in 250 cc., with a trace of salicylic acid to preserve it. If filtered bright, it is permanent. Dr. Oliver, who recommended the test, suggests the dilution of the urine before applying the test, but this is only necessary where a slight haze would be obscured by the depth of color in the sample. Bile pigment may be detected by the reaction with iodine. A drop or two of the B.P. solution of iodine should be poured down the side of a test-tube half-filled with urine. If bile pigment be present, a fine green color appears, whilst, if absent, only a pale yellow coloration is seen.

Urinary Sediments.—Besides mucus and urates, which are commonly deposited in healthy urine, phosphates may appear in ammoniacal or stale urine, or after the ingestion of alkaline salts. Pus, uric acid, and oxalate of calcium may occur in morbid urine, and when albumin is present diligent search must be made for renal casts. The sediment should be collected in a conical vessel and a small quantity withdrawn, by means of a pipette, with as little of the supernatant liquid as possible. A drop may thus be placed upon a slide, the cover slip gently pressed over it, superfluous liquid oozing out removed by clean blotting paper. A ¼ or ⅙ inch objective will be found a very useful size for the microscopical examination.

Urates.—Readily detected by their dissolving when gently warmed. They are frequently pink-colored from the urinary pigment, uroerythrin. They have no special significance, as they occur whenever there is diminished secretion from any cause. Urates in urine are acid urates of sodium, potassium, or ammonium.

Uric Acid, often accompanied with urates, is recognizable to the naked eye from its similarity to cayenne pepper. It is insoluble when heated, but dissolves in a few drops of solution of potash, reprecipitated by acids. Its appearance under the microscope varies, the common forms being lozenge-shape, rosettes, or dumb-bells.

Phosphates appear as a white deposit, and may be recognized by their solubility in acetic acid. The acid solution can then be tested for phosphates in the ordinary way, either by molybdic acid or magnesium mixture.

Oxalate of Calcium is insoluble in acetic acid or in alkalies, but dissolves in hydrochloric acid. It generally occurs as octahedra, or dumb-bell crystals, with mucus.

Mucus is thin in acid urine, ropy in alkaline. Mucin is precipitated by acids, alcohol, or alum, but dissolved by alkalies, and not affected by mercuric chloride. Microscopically examined, mucous corpuscles resemble leucocytes.

Pus always renders urine turbid, but in acid urine it separates as a white deposit somewhat similar to phosphates. The addition of alkali turns it into a gelatinous mass, and if the urine is alkaline the deposit will have this appearance. It is precipitated by mercuric chloride. A drop of acetic acid renders the nuclei of pus cells much more distinct under the microscope, and the granular corpuscles are colored mahogany-brown by iodine solution, whilst epithelial cells are only tinged yellow.

Renal Casts are cylinders which have received their shape from the renal tubules. They are absolutely confirmative of the presence and significance of albumin, and indicate disease of the kidneys. There are several varieties, the principal being blood-casts, granular, and hyaline casts. Blood-casts are recognizable from the number of red-blood corpuscles. Granular casts are opaque, with sharp outline and irregular granules. These consist of degenerated epithelial cells or blood corpuscles. Hyaline casts are more easily overlooked as they are colorless, long and narrow, with crystals and phosphates frequently embedded in them. They are frequently described as of "ground-glass" appearance, and are constantly present in chronic Bright's disease.

Blood.—In highly-colored urine blood may be detected from the presence of corpuscles under the microscope. If a large quantity be present, the urine will be alkaline and albuminous. The hæmin reaction is useful for the detection of blood in the sediment. It is applied as follows: A little of the sediment is placed on a slide with a drop of glacial acetic acid, and a few crystals of chloride of sodium. Heat is cautiously applied until all the liquid has evaporated, and oblong red-brown crystals of hæmin will be easily recognized under the microscope if blood be present.

Report.—It may be useful to give here a form of report which is often employed by analysts after the qualitative examination of urine according to the above scheme. It should be modified or amplified as the case may require, and sometimes it is as well to give a full account of the microscopical appearance of the deposit, and adding a few remarks at the end of the report upon any of the abnormal features. A sample of diabetic urine will, perhaps, be best taken as an illustration. It would run somewhat as follows: "I beg to report the result of my examination of a sample of urine received from on the inst. The urine was of a light yellow color and measured 1,800 cc. or 64 fluid ounces.

Specific gravity, at 60° F., 1.030
Reaction, faintly acid.
Albumin, absent.
Sugar, present in large amount.
Biliary salts and pigments, absent.
Deposit, mucus.
Microscopical examination revealed nothing abnormal.

(Signed)———."

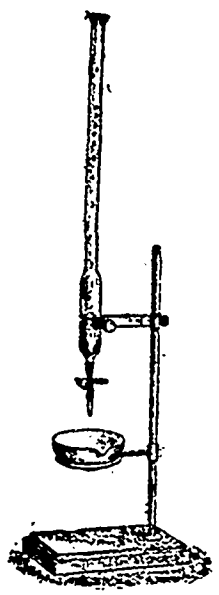
Quantitative Determinations.

Acidity.—Certain gout specialists, in particular, lay great stress upon the determination of the acidity. This is because, under the administration of salicylate of sodium, the uric acid which has accumulated in the blood and tissues is excreted, and the rise in acidity considerable. As the acidity is diminished after meals, it is advisable to be supplied with the whole excretion of twenty-four hours, *i.e.*, from 9 a.m. to 9 a.m. Acidity should be determined volumetrically in 100 cc. of urine by means of standard caustic soda solution, using a few drops of a proof-spirit solution of phenol-phtalein as indicator. Each cc. of the solution should be equal to 0.010 gramme of oxalic acid, and it should be reported in terms as equivalent to parts per thousand. Normal urine has an acidity equivalent to 2.5 to 3.0 grammes of oxalic acid ($C_2H_2O_4.2H_2O$) per litre. In gout, under the influences mentioned, and in acute febrile diseases, it rises to 6 grammes, or even more. Many medical men prefer statements of acidity, uric acid, and urea in the number of grains excreted per twenty-four hours.

Albumin.—The most satisfactory method of determining the amount of albumin in urine is by means of Esbach's albuminometer. The instrument consists of a test-tube with special graduations to mark the proportions of albumin. The urine is poured into the mark U, and a saturated solution of picric acid added to the mark R, the tube well shaken, and allowed to stand at rest for 24 hours. At the end of that time the

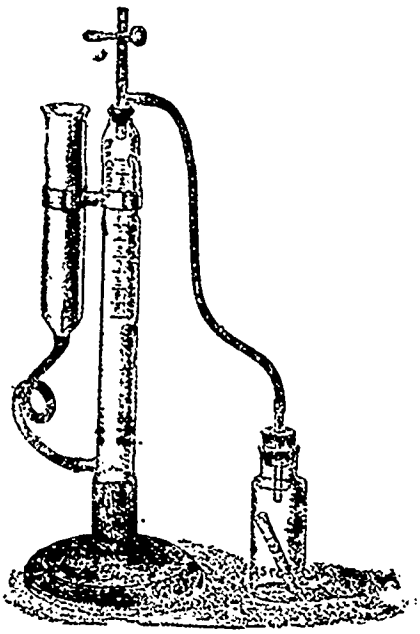
coagulated albuminous precipitate will have settled, and the number corresponding to the upper level of the deposit is noted. This figure represents parts per thousand or grammes of albumin per litre of urine. Care must be taken that alkaloids or peptones are not present or the result will be vitiated. Coagulation by means of the heat and acid test may also be employed, but it is very tedious. The precipitate must be collected on a tarred filter paper, dried and weighed.

SUGAR.—There are two well-recognized methods of determining sugar—Fehling's and Pavy's. The objection to Fehling's method is the uncertainty of the end reaction. Pavy's method is not open to this objection, but it is really too delicate, and affected by uric acid and creatinine, whilst the ammoniacal fumes are unpleasant. The cupric-cyanide process of Mr. A. W. Gerrard is a modification of Fehling, which has all the advantages of Pavy's method without the excessive delicacy to other bodies. As recently improved, it consists of the following: (1) Copper sulphate, re-crystallized, 69.3 grammes, distilled water to 500 cc.; (2) tartarated soda, crystallized, 175 grammes; caustic soda, pure, 76.56 grammes; distilled water to 500 cc. Take 5 cc. of each of these solutions, and dilute with distilled water to 50 cc.; 25 cc. of this mixture is heated, and a solution of cyanide of potassium run in until the blue color is just discharged. (The cyanide solution may be made of any strength, but about 35 grammes in 500 cc. will be best.) Add the remaining 25 cc. of the mixture, boil again, and run in



the urine from a burette, stopping the flow of the urine directly the blue color is again discharged. With diabetic urine, it will be necessary to dilute one volume to ten volumes with water, and use this diluted liquid. As 5 cc. of the copper solution is equal to 0.05 gramme of glucose, the volume of urine employed to discharge the color will contain 0.05 gramme of sugar. To obtain the percentage a simple proportion sum is necessary. Thus suppose 12.8 cc. of urine were used, then 12.8 : 0.05 : 100 : 0.39, and if the urine was diluted ten times that would give 3.9 as the percentage. Multiplication of the percentage by 4.375 will give, of course, the number of grains per fluid ounce.

Gerrard's glycosometer (patented) consists of a burette graduated to read the



percentage of sugar or grains per ounce, without the need of calculation.

UREA.—The best method of determining urea is that depending upon the liberation of nitrogen by means of hypobromide of sodium. Several forms of ureometer or ureameter have been devised, but that of Mr. A. W. Gerrard is one of the best and simplest. It is much more accurate than the modified form known as Cruise's, or Doremus' ureometer, which invariably gives results considerably below the truth. Solution of hypobromide is made by dissolving 100 grammes caustic soda in 250 cc. distilled water, and adding 25 cc. of bromine. It is much more satisfactory, owing to the unstable nature of the solution, to keep the caustic solution alone. Then, as required, the bromine can be added for each determination by means of the capsules of bromine. These glass capsules contain 2.2 cc. of bromine, and it is only necessary to drop one with sufficient force into 25 cc. of the caustic solution to liberate the bromine without any smell or danger.

DIRECTIONS FOR USING THE UREMETER.—Fill the large arm of the uremeter with water, and adjust the small arm so that the level is at O in the large arm, and just covers the bottom of the small. See that the clip at the top is quite tight. Place 25 cc. of the hypobromite solution in the bottle, and lower the tube containing 5 cc. of urine into the same vessel, without spilling any of its contents. Having inserted the india-rubber cork firmly, and adjusted the level of the liquid again, by means of the clip, gradually upset the urine into the hypobromite by inclining the bottle. Nitrogen is immediately evolved, and the increased pressure lowers the level of the water. At the expiration of a few minutes, when no more gas is being evolved, immerse the bottle in cold water to reduce the temperature, and again adjust the arm so that the water in both tubes is level. The level of the liquid is read off from the graduations on the arm in terms of percentage. The average amount of urea in normal urine is about 2 per cent.

URIC ACID.—The tendency of uric acid to form concretions, and its importance as a factor in gout, have led many physicians to desire a quantitative determination. Several methods, based upon the reduction action of uric acid upon alkaline cupric solution, have been found, in practice, very misleading. Denigès (*Bull. Soc. Chim.*, 11, 226-230) recommends the following: A. Dissolve 150 grammes of ammonium chloride and 100 grammes magnesium chloride in strong ammonia to 500 cc., and add an equal volume of $\frac{N}{10}$ silver nitrate solution. B. Dissolve 10 grammes pure potassic cyanide and 10 cc. strong ammonia in 500 cc. water. Take 100 cc. of urine, and add 25 cc. of A filter, and 20 cc. of B, and a few drops of 20 per cent. solution of potassic iodide with 2 per cent. of ammonia added to 100 cc. of the filtrate. This liquid is then treated with $\frac{N}{10}$ silver nitrate solution, until a persistent turbidity is obtained. The number of cc. employed, with one-fourth added (as an aliquot part was taken), multiplied by 0.00168, gives the percentage of uric acid.

Albumin is stated not to interfere with the result, but iodides must be removed by adding nitric acid and excess of silver nitrate. This is in turn removed by sodium chloride and the titration conducted as above. The percentage of uric acid varies from 0.04 to 0.175 per cent.

PHOSPHATES. — The uranic acetate method of determining phosphates is most suitable. The solutions required are made as follows: 35 grammes uranic acetate, 25 cc. glacial acetic acid, distilled water to 1 litre. This should be titrated upon a solution of ammonio-sodic phosphate, 5.886 grammes in a litre, so that each cc. represents 9.005 grammes each of sodic acetate and acetic acid in a litre. Also a 5 per cent. solution of potassic ferro-cyanide freshly prepared. Mix 50 cc. of the filtered urine with 5 cc. of the sodic acetate solution and warm the mixture. Run in standard uranic solution until precipitation does not any longer appear. A drop is then removed by means of a glass rod, and allowed to drop into a drop of the ferro-cyanide solution placed on a white plate. So long as no brown color appears, the uranic solution can be added. When this occurs, note the number of cc. of uranic solution used, and this number multiplied by 0.005 and by 2 gives the percentage of phosphoric acid. —*British and Colonial Druggist's Diary*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

FEBRUARY 15TH, 1895.

Publisher's Notices.

We desire to emphasize the following:

The CANADIAN DRUGGIST is published on the *fifteenth* of each month.

Communications or articles for insertion should reach this office by the *seventh*.

Changes of advertisements, or copy for new advertisements, should reach us by the *fifth* of the month to ensure proper position.

Any irregularity in receipt of this journal should be at once reported.

Advertisements under the headings of Business for Sale, Business Wanted, Situations Vacant, Situations Wanted, or Goods for Exchange, will receive *one insertion free.*

Communications are invited on all matters pertaining to the drug and chemical trades.

All communications must be accompanied by the name of the writer, not necessarily for publication.

A careful perusal of *all* the advertisements is requested, and, when ordering special lines mentioned there, state that you "saw it in the CANADIAN DRUGGIST."

Advertisements of Business for Sale and Wanted, Situations Wanted, etc., are on page 40 of this issue.

Remember,—the address of the CANADIAN DRUGGIST is now 20 Bay Street, Toronto, Canada.

Exchange of Ideas.

It seems somewhat surprising that out of the large number of druggists in business in this country, there are so few who realize the benefit that must ensue from a liberal exchange of ideas in reference to matters connected with the trade. From time to time we have asked our readers to send for publication anything tending to the advancement of Pharmacy, the solving of perplexing business questions, the unravelling of difficulties in the laboratory or at the dispensing counter, or the everyday happenings which, if minor importance to one, may be of still greater importance to others. Human nature is naturally selfish, especially if not allowed free intercourse with its neighbor, and nothing tends to make us as selfish as this keeping everything to oneself—our experiences, our wants, and our acquired knowledge. Our desire to know more, to find out something which has not revealed itself to us, or not been revealed by others, should encourage us to come out of ourselves, to impart, as well as to ask for, information, to endeavor to guide others as well as to be guided by others, and thus to acquire many things which, in the ordinary routine of business or even in text-books, has not heretofore been presented. To take even a selfish view of the subject, just imagine what we would gain if one of us with an enquiring turn gives to his confrères the benefit of one fact coming under his notice which he believes to be of material help, when he may have the benefit of the experiences of hundreds which may be induced to follow his example in this respect. We are all too prone to lock up within ourselves that which might be of great help to others, and which to impart would leave us none the poorer. We would urge upon druggists the expediency of giving this subject serious consideration and making a commencement by sending us something which they themselves have found to be valuable, and of which others may have no knowledge. This investment of one thought will, in all probability, be the means of bringing in a harvest of other people's thoughts, some of which may be more profitable to us than years of study or experimental work The columns of drug journals are always open, and only too glad to receive any such contributions, and in doing this the journalist endeavors to do his share towards a subject so evidently beneficial as an exchange of ideas.

The Result of Co-operation.

At the annual meeting of the directors and shareholders of this company, held in Hamilton recently, a most satisfactory showing of the year's work was presented. The retiring directors were re-elected unanimously, and a consulting board was selected from Toronto shareholders to assist their representative director in maturing plans to meet their needs.

The first issue of twenty thousand dollars worth of stock having been taken up over a year ago, another issue has been made at a premium, and already, we understand, a considerable amount of this has been taken.

This is purely a druggists' company, as only they can buy or hold stock; and as the venture is entirely a new method of meeting a difficulty, its successful issue will doubtless be watched with considerable interest, and, not alone by those in whose interests it is, but by those against whose interests it is.

The trade difficulties with which Ontario druggists have had recently to contend seem only to have cemented them more closely together. The initiative work of this company affords a fair indication of what the future may be if co-operation in business lines exists.

Montreal Notes.

Business is dull in Montreal, and not only the pharmacists say so, but all retail business men as well. As a dry goods man said a few days ago, "There could not be a better time for a Federal election than now."

The students' incipient rebellion at the College of Pharmacy has subsided. If the number offering for the botany class next year will warrant it, the board will appoint a French lecturer. It must not, however, be forgotten that the college is self-supporting, and ways and means must be taken into consideration. Meanwhile, Professor Bemrose is giving as good a course of botany as can be obtained in Montreal, either French or English.

Commercial travellers are beginning to appear quite frequently in Montreal from Toronto houses, and they hold out temptations, and show up-to-date goods, especially in sundries. American travellers are more frequent now than formerly.

Messrs. Lyman, Sons & Co. now represent the Pasteur Institute of New York, and have brought in large quantities of "serum" made by Dr. Roux's formula, so there is no excuse for not giving the new remedy a trial wherever an epidemic of this terrible disease exists.

The prescription business becomes more difficult every day, and the pharmacist who scrupulously desires to obey the instructions of the physician has an anxious time of it. In Montreal the products of no less than six different pill and tablet manufacturers are constantly being prescribed, and woe betide the unlucky pharmacist who happens to supply an Upjohn's quinine pill for a Warner's, or *vice versa*, especially if the prescriber happens to be a physician who has absorbed all the enterprising drummer has told him. A little discretion should be left to the dispenser, as it is impossible for one house to keep a full line of pills by six or seven different makers.

The committee appointed to enquire into the charge that the questions at the last Quebec examinations had got into the hands of certain students has reported that, after a full and exhaustive enquiry, there is no ground whatever for the charge.

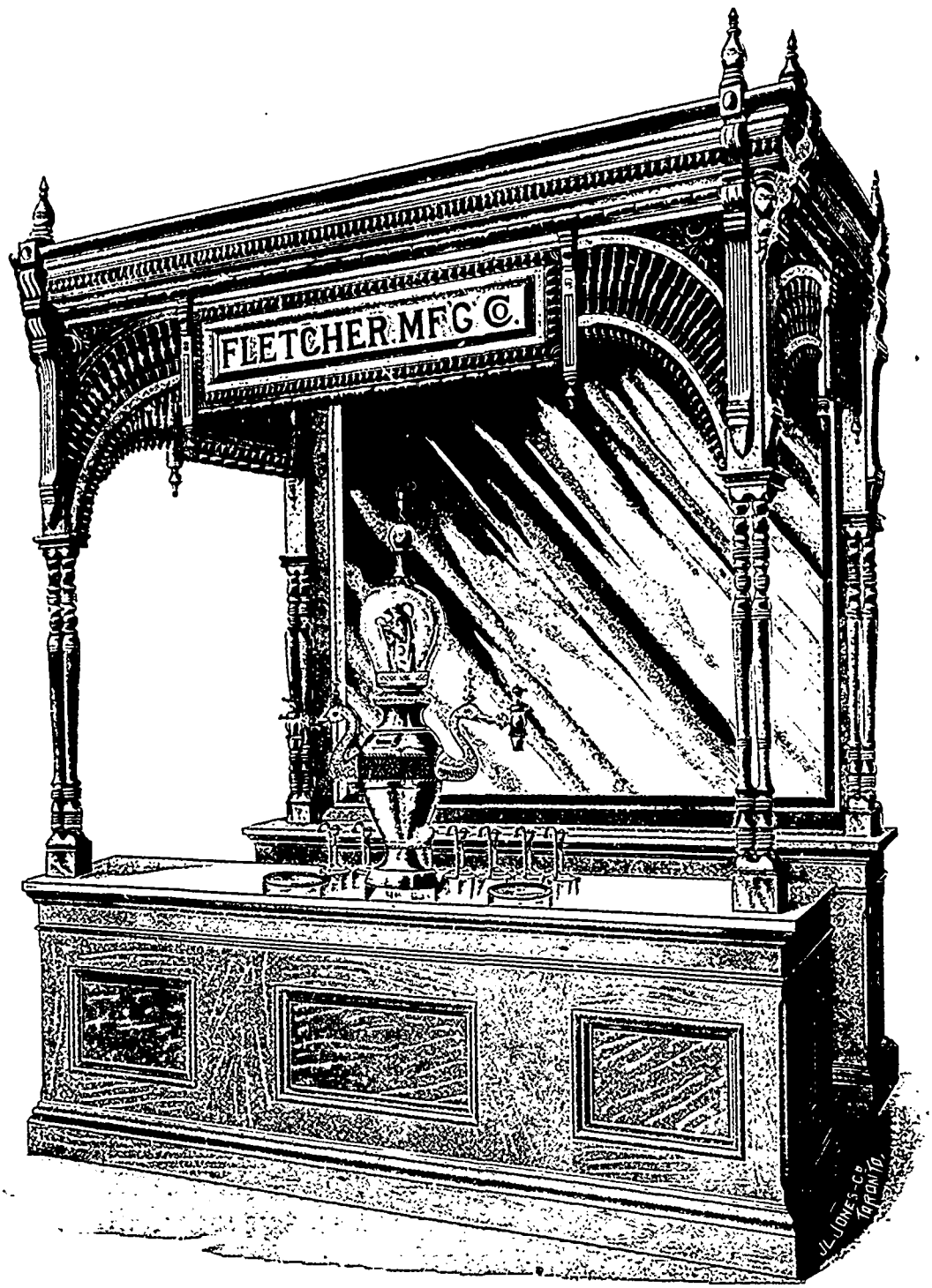
Fletcher Manufacturing Co.,

440 YONGE STREET, TORONTO.

Manufacturers of and Dealers in

Soda Fountains - Generators - Cylinders - Freezers

And every other article necessary for carrying on the Soda Water Business.



THE accompanying fount shows an entirely new idea for counter apparatus.

The Canopy is made from natural hardwood, highly finished.

The Fount is heavily silver-plated on pure white metal; all connections and attachments are made from pure block tin, thereby insuring Soda Water absolutely free from the metal poison so often found in old apparatus.

The Body of Fount is double, having a dead air space between inside and outside linings. Inside of this is a coil of block tin pipe, reaching to where our name-plate appears. This plate is hinged so that it may be raised when filling body with broken ice, for which we supply a special funnel free.

Fount has EIGHT PATENT PNEUMATIC SYRUP JARS and TWO PATENT DRIP PLATES fitted into slab under Soda Taps. These plates can be lifted out for purpose of packing ice around coolers and syrup jars.

Cooler box is fitted under counter, is easy of access, and no trouble to fill with ice.

We supply with the Fount: *Canopy, Marble Slab, Eight Patent Syrup Jars, Cooler Box, Six Silver-Plated Tumbler Holders, Twelve Tumblers,* and all connections and pipes ready for attaching to cylinder.

The FRIGID B FOUNT.

We make this Fount in Style A, without Canopy, and a smaller slab, but with all other attachments the same as Style B. F.O.B. Toronto. Counter extra in all cases. Any style made to order.

Dealers in Fruit Oils, Fruit Extracts, Flavorings, Etc.

WRITE FOR CATALOGUE

Ontario College of Pharmacy Council Meeting.

The regular semi-annual meeting of the Council of the Ontario College of Pharmacy opened in the Board room of the college building, Gerrard street east, Toronto, at 3 o'clock p.m., Tuesday, Feb. 5th, 1895. The members present were: Messrs. J. H. Mackenzie, J. A. Clark, C. K. McGregor, C. D. Daniel, D. H. MacLaren, J. G. Shuff, Henry Watters, J. M. Hargreaves, and W. A. Karn.

In the absence of the president, Mr. A. B. Petrie, the vice-president, Mr. J. H. Mackenzie, took the chair, and, in doing so, expressed his regret at the absence of the president, who was then on his way to the antipodes on a trip combining business and pleasure. Speaking for himself, and for every member of the council, Mr. Mackenzie continued, he wished Mr. Petrie a pleasant, prosperous, and beneficial voyage, and a safe return. (Hear, hear.)

The minutes of the last council meeting, having been published and placed in the hands of every member, were accepted as read, and adopted as printed.

Letters were read from Messrs. D'Avignon and Polson, members of council, announcing their inability to be present at the council meeting.

A large number of other communications were read, and referred to the various committees for attention. Three or four were dealt with directly by council, among them being one from Dr. J. W. Campbell, of Kingston, requesting to be registered for a drug store at 94 Avenue road, Toronto. It being reported, however, that this store was owned by a student of the college who has, so far, failed to secure his diploma, the council resolved, on motion of Messrs. Watters and McGregor: That the application of Dr. J. W. Campbell, Kingston, *re* registration of drug store at 94 Avenue road, be not granted, as it does not appear that he is proprietor of that store, and that the four dollars received from him be returned.

J. H. Walker, St. Catharines, wrote protesting against the action of the Registrar in charging him with three years' arrears on a drug store on College street, Toronto, which he claimed never to have owned, but only operated for a while for another. Inasmuch as the Registrar had never received notification of Mr. Walker's retirement from business, the council unanimously, and without discussion, endorsed the action of the Registrar.

In response to requests from the Western Fair and Toronto Industrial Exhibition boards, the council appointed Messrs. Shuff and Karn to represent them at London, and Messrs. Mackenzie and Daniel to act on the Toronto board. The council then adjourned.

Second Day.

Upon resuming business on Wednesday morning, with Vice-President Mackenzie again in the chair, all the members present the previous day were in their places, and, in addition, Mr. John McKee was present.

No committees were ready to report, and an adjournment was accordingly made until after lunch, when the Infringement Committee reported as follows through its chairman, Mr. Watters:

Report of the Infringement Committee:

Toronto, February 6, 1895.

Your committee beg to report that, since last meeting of council, a vigorous attack has been made on druggists in arrears, resulting in the removal from the *Registrar's books of the names of nearly* all those in arrears.

An attempt has also been made to put a stop to every case of infringement brought to the notice of the committee that offered reasonable prospect of conviction. This attempt has been attended with less success than we could have desired, owing to the difficulty of obtaining the services of a competent and reliable detective. Your committee would ask for the approval of the council to secure the best possible detective talent obtainable to undertake a thorough and determined prosecution of all cases of infringement.

In reference to the case of Dr. R. B. Wells, Durham, your committee would ask the council to confirm the action already taken in refusing to register Dr. Wells.

In the case of the Oakville Pharmacy, your committee would recommend that the matter be left in the hands of the Registrar, to be dealt with by him.

Your committee would ask that the sum of $200 be placed at the disposal of the chairman.

(Signed) Henry Watters,
Chairman.

Upon motion of Messrs. Watters and Daniel, the report was received.

Upon a second motion from the same gentlemen that the report be adopted, some discussion arose upon the proposal to enter upon an active campaign against suspected law-breakers, and every speaker warmly supported the position taken by the committee, urging that no expense be spared to bring offenders to justice.

Mr. Clark asked if the simple adoption of the report would be considered sufficient authority for the committee to take action, and, upon the chairman's affirmative reply, the report was adopted with unanimity, and the council adjourned until Thursday morning.

Third Day.

The council resumed on Thursday morning at 10.30 o'clock, with Vice-President J. H. Mackenzie in the chair, and all members previously in attendance present. Three or four communications were referred to the proper committees, and an adjournment made until 11.30 o'clock, when the Executive Committee presented the following report.

Report No. 1 of the Executive and Finance Committee:

To the President and Members of the Council.

Gentlemen, — Your committee have examined carefully the following accounts, and recommend their payment, subject to adjustment, by the Registrar-Treasurer, of two small accounts, viz.:

Lyman Bros	$ 86 51
Lyman, Knox & Co	57 93
Vannevar & Co	1 50
Elliot & Co	33 70
James Bain & Co	20 85
Empire Printing Co	15 75
Globe Printing Co	17 10
Mail Printing Co	18 19
Monetary Times	26 25
Map and School Supply Co	202 14
Toronto Rubber Co	4 22
P. Freysing & Co	5 13
J. A. Carveth & Co	3 38
J. H. Dunlop	1 20
Simcoe Ice Co	1 20
John Wright	75
Jas. R. Mills	47 06
Whitall, Tatum & Co	5 04
Edgar & Malone	20 00
Brown Bros	2 25
Rolph, Smith & Co	15 45
A. P. Watts	11 25
Bell Telephone Co	23 50
W. Lloyd Wood	9 24
Mrs. Parsons (scrubbing)	5 50

Expenses *re* committee meeting, December, 1894:

W. A. Karn	$ 7 50
H. Watters	29 08
C. K. McGregor	7 00
J. A. Clark	4 75
Total	$683 42

Your committee would again recommend that in all cases the Registrar-Treasurer only shall issue orders for supplies and repairs to the building, and in cases where any additions are required on the building or the furniture, such shall only be undertaken by the authority of the chairman of the Executive and Finance Committee.

Your committee have examined the reports of the Registrar-Treasurer and auditors, and recommend their adoption.

Your committee would further recommend that the Registrar-Treasurer deposit one thousand dollars ($1,000), from the current account of the college, in the savings bank department of the bank, and that the President and Registrar-Treasurer pay this amount to the holders of the mortgage on the college on May 30th, 1895. Upon payment of the said amount the mortgage indebtedness on the college building will be reduced to thirteen thousand dollars ($13,000).

Regarding the covering of the remainder of the steam pipes with mineral wool, your committee would recommend that this matter be laid over until the August meeting, 1895.

Your committee would recommend that the minutes of this council meeting be printed in pamphlet form, similar to the *report of the last semi-annual meeting of* the council, and a copy be mailed to each

member of the college, and the Registrar-Treasurer is hereby authorized to carry out this recommendation, and that any other notice requiring announcement by the college be incorporated in this pamphlet, and that special prominence be given to the resolutions, passed last council meeing, that all members of the college who shall pay their annual renewal fees on or before the first day of May receive a rebate of two dollars ($2), commencing with the year 1895-6. The fee not being paid on or before the 1st day of May in each year, no rebate shall be allowed.

And your committee would further recommend that the Registrar-Treasurer send printed post-card notices to each member of the college on or about April 1st, relating to the payment of the annual fee and the rebate permitted upon prompt payment on or before the first day of May.

Your committee would recommend that the Registrar-Treasurer be authorized to issue printed notices to the members of the college regarding the elections to be held of members of the council of the college, under By-law X, subsection 4.

Respectfully submitted,

D. H. MacLaren,
Chairman *pro tem.*

Upon motion for the adoption of the report, the chairman called attention to the satisfactory condition of the college finances, and congratulated the council upon the fact that the mortgage debt was now practically reduced to $13,000. This was the amount of the debt upon the old building, so that the new building, with its magnificent equipment, which was alone worth $10,000, had been paid for. They were paying off the debt as fast as the terms of the mortgage would permit, or the mortgagors accept the money; in fact, it could be paid off still more rapidly if the holders of the mortgage would permit it.

Mr. J. A. Clark endorsed the President's remarks, and called attention to the fact that, in addition to reducing the debt on the college, the council had been enabled to reduce the members' fees fifty per centum, when paid promptly.

Mr. H. Watters expressed his pleasure and satisfaction at the report before them, and also at the small cost to which the council had been put for law expenses.

The report was then adopted, and the council adjourned.

After devoting some hours further to committee work, the council again convened at 3.45 o'clock Thursday afternoon, when Mr. C. D. Daniel presented the following report of the Committee on Education:

EDUCATIONAL REPORT.

(1) Your committee beg to report that very careful attention has been given to the many questions referred. With reference to the internal working of the college, your committee are pleased with the results of the past year. The dean and members of the faculty have been faithful in the discharge of their duty, and every effort has been made to perfect the students and thoroughly fit them for a successful business life. The high standard has been maintained and reports are constantly being received of the high positions the graduates of the Ontario College of Pharmacy hold in different parts of Canada and the United States.

The junior course recently finished was very successful. A larger number of students passed through the course than at any previous time, and the popularity of the college is attested by the fact that a number of students are in attendance who were three-year men, and consequently not obliged to take the course, and your committee desire to draw attention to the letter from Robert Brydon, Esq., a member of the Board of Pharmacy of Virginia, and it is a matter of congratulation that our high standard is being recognized, and that the graduates of our college in distant parts sustain the reputation of the college, and we recommend that Mr. Brydon's letter be incorporated in this report.

Board of Pharmacy of Virginia,
Danville, Va., Jan. 20, 1895.

Isaac T. Lewis, Esq., Toronto:

Dear Sir,—Our Board of Pharmacy is anxious to obtain from other Boards and Colleges of Pharmacy as much information as possible in regard to educational requirements for apprentices, and knowing your college to be in the lead in such kind of legislation I would be greatly obliged by your sending me a copy of your laws on the subject. Our people are not educated up to the idea of looking upon druggists as professional men, and only by action as embraced in your law can we hope to obtain that desired position. Two of your graduates are living here, and have made for themselves enviable names as competent pharmacists, thus sustaining the reputation of your college. As a former citizen of Toronto, and apprentice of the old firm of Lyman, Elliot & Co., as well as my late brother, Mr. William Brydon, having been one of your examiners, I take a great interest in your college, and am glad to know of the high character to which it has attained, as well as its continued success.

Yours truly,
Robert Brydon.

(2) Your committee recommend that the following amounts be appropriated to the different departments for the purchase of apparatus that is absolutely necessary to the proper working of the college:

Department of botany and chemistry:	
Botanical models of plants	$ 75
Chemical and physical apparatus, including spectroscope	150
	$225
Department of Practical and Analytical Chemistry	75
Department of Materia Medica and Microscopy	142
Department of Pharmacy	75

In the Department of Pharmacy there is an unexpended amount of previous appropriations ($132), and your committee recommend that authority to expend this amount be given.

(3) With reference to the John Roberts scholarship, your committee would suggest that steps be taken to give practical shape to the bequest by carrying out the provisions embodied therein, with the following limitations, as approved by Mr. J. Roberts Allen, the executor of the estate, viz., that the scholarship and medal be restricted to candidates at the May qualifying examination who present themselves the first time for examination, and show qualifications at that examination entitling them to the award of merit specified, and who have served apprenticeship in the Province of Ontario, and have taken two courses of lectures in the Ontario College of Pharmacy.

(4) Your committee, in view of the expiration of the contracts of the faculty, recommend that the Executive and Finance Committee renew the same at this meeting.

(5) Your committee recommend that, in view of the heavy work to be performed by the janitor during the severe winter months, an assistant to look after fires be engaged during the months of February and March; salary $4 per week. Also, that the boy now employed in looking after the cloak-room and other matters be retained during the balance of the season.

(6) Your committee are of the opinion that the floor of the upper laboratory should be covered to prevent liquids going through the cracks, and seriously inconveniencing the occupants of the lower laboratory, and recommend this matter to the attention of the Committee on Finance.

(7) It is strongly urged that, as the dean's and examiners' reports form part of this report, they all be entered upon the minutes of this council.

[(8) This clause was referred back, and appears in amended form in Report No. 2.]

(9) Your committee have examined the report of the Examining Board, and recommend that diplomas be granted to the candidates named in the report hereto attached.

(10) Respecting the recommendation of discontinuing the granting of medals for any purpose other than general proficiency, we would recommend that no change be made in the regulations at the present time.

(11) Respecting the recommendation regarding the withholding of rating from candidates who have not completed full apprenticeships, your committee concur.

(12) Your committee also recommend that the Executive and Finance Committees provide, if possible, the necessary dispensing scales as requested.

(13) Your committee recommend that the general proficiency medal be granted to the candidate at the December examination who conforms to the regulation standard, provided that the candidate has not failed at any previous examination.

This regulation to apply to the last December examination.

Respectfully submitted,

C. D. DANIEL,
Chairman.

Appended to this report, and forming a part thereof, were the reports of the Dean and Board of Examiners.

The Board of Examiners reported as follows: At the last meeting of the Board of Examiners considerable discussion took place as to the eligibility of any of the candidates for proficiency medals. The standing taken was sufficiently high to warrant them being given, but owing to a regulation adopted by the council in February, 1893, the board felt that a decision by the council would be necessary. Awaiting such decision, I remain, on behalf of the board,

Very respectfully yours,
W. MURCHISON, Chairman.

Following this were given the details of the examinations as have been already published, and then the report made the following recommendations:

That the council consider the desirability of discontinuing the granting of medals for any purpose other than general proficiency;

That in case any candidate be hereafter permitted to write for diploma whose time has not been completed at the time of writing, his rating be withheld until the council has been furnished with evidence of the completion of his full apprenticeship period; and,

That a sufficient number of dispensing scales be procured to complete the equipment of each dispensing desk.

All of which is respectfully submitted,
W. MURCHISON, Chairman.

The Dean reported as follows:

GENTLEMEN,—I have the honor to herewith present my report for the session of 1894-95 to date:

The junior term began on September 11th, 1894, with the matriculation examination. Three candidates only were required to take the examination, and these were all successful.

Lectures commenced on September 13th, and continued without intermission (excepting the usual Thanksgiving holiday and the 'Varsity sports half holiday) until December 12th; 104 students were in attendance during the term. The records of this college show the largest junior class to be that of 1891, which numbered 109 members, and of this number some nine or more dropped out during the term owing to attacks of diphtheria and typhoid; hence at the recent junior term a larger number of students were carried through the entire term than at any previous session.

In addition to the number of exercises called for by the college time table, the writer gave an extra exercise by way of experiment of one hour each in what he chooses to term "Pharmaceutical Arithmetic." The popularity of these grinds, and the success attained in developing the aptness of the class to grasp and retain the principles involved under the above title, was such as to warrant a continuance of similar exercises in the future.

The junior written examinations began on December 12th, and continued for four consecutive days; practical examinations were held on December 4th. Several members of the class received over 90 per cent. of the total.

First-class honors were granted to all students receiving 80 per cent., or more, of the total marks attainable; second-class honors to those attaining from 66 to 80 per cent.; and a pass to all taking 50 per cent. or more.

A hundred and two candidates, in all, entered for the examination, of which number 86 were successful in all subjects and 6 in part subjects. Two were granted ægrotats on account of illness.

Students' names are arranged in order of merit in the accompanying honor list (Exhibit B), and alphabetically in the pass list.

The supplementary examination was held on January 3rd and 4th, 1895, the results of which are submitted herewith. The lectures of the present senior term began on January 8th, with 100 students in attendance, the largest senior class during the record of this college. The gentlemanly conduct of the class is worthy of remark, their relations with the Dean and staff being most courteous and responsive. As students they are veritable plodders, and give us every reason to predict that they will reflect credit upon themselves, and the college as well, at the May examinations.

The question is often asked, What becomes of our graduates? and, with a view to answering this query, the writer has devoted considerable time, during the past eighteen months, in tracing the location of the graduates of 1892-94 inclusively, representing three classes. It has been ascertained that, within twelve months of the date of graduation, 65 per cent. of them are found engaged in business on their own account, or occupying responsible positions as managers of pharmacies in the neighboring provinces or in the United States, or pursuing a course of study in medicine, while the remaining 35 per cent. find positions as managers, or become proprietors of pharmacies in Ontario.

To indicate how readily many obtain positions as head dispensers in certain localities, the writer would mention that during the last three months of 1894 he aided twelve graduates in securing employment in New York city suburbs, where a diploma of this college receives spontaneous recognition, and where the knowledge and skill of its possessors as practical dispensing chemists are so well known.

It is also gratifying to be able to submit that the Manitoba Board admits the thoroughness and efficiency of our course of instruction by registering those now receiving either the college diploma or the certificate, whereas in 1890 requests to recognize holders of the Ontario College of Pharmacy diploma were respectfully declined.

At the last semi-annual meeting of the council, the faculty was requested to submit a plan for an extension of the college course. Much as a two years' course is needed, and, in fact, should be inaugurated at the earliest possible date, yet it has been found, after a careful consideration of the matter, that the college building as it now stands, though suited to the accommodation of two classes of students for didactic work, cannot be adapted for instruction in the all-important practical work. Duplicates of the two laboratories would be required, or the present laboratories nearly doubled in size. The faculty desires the council to look over the building with them, with a view to offering suggestions that may not have occurred to the former.

Re matriculation, the staff again urges that an increased standard be adopted, namely, a Third Class Non-Professional Departmental Certificate.

In my last report I called attention to the fact that the Senate of the University of Toronto were discussing the proposed recognition of graduates of the degree Phm.B. (Tor.) as matriculants in medicine, and the courses of instruction in our college as an equivalent for the same subjects as taught by the Medical Faculty. Acting in accordance with the advice of members of the Senate, our representative (Dr. Scott) on that body has withdrawn the proposed statute until such a time as our matriculation shall have been increased. It might be mentioned here that the medical departments of Queen's and McGill Universities, also Trinity School of Medicine, have voluntary recognized the degree mentioned in lieu of matriculation, and some have granted a dispensation on the subjects taken up in our college courses.

It is requested that the council modify the regulation passed at the August, 1893, meeting, making it incumbent upon the members of the staff to take annual inventories of their respective departments. The task is indeed a lengthy and laborious one in certain departments, and, as there is very little material change in a single year, would not a biennial inventory, then, meet the objects to be attained quite as well as the execution of the regulation as it now stands?

It having been deemed prudent to engage a boy to take charge of the students' cloak room, while the classes are in session, all complaints of sneak-thieving (which has proved to be a constant annoyance in the past) have been avoided. It is suggested that the Registrar-Treasurer be empowered to secure the services of a boy for this purpose during future college sessions.

It is imperative that the floor of the chemical laboratory should have asphaltum, sheet lead, or some other suitable covering placed over it at once, to prevent the constant unavoidable dripping of water, acids, etc., upon the students, their work tables, apparatus, etc., in the pharmacal laboratory, which has been a source of constant annoyance ever since the

seams of the floor have opened, owing to the shrinkage of the wood.

It is also requested that each laboratory be provided with a wall clock.

The staff respectfully suggest that the next session shall begin on September 12th; the junior term to continue until December 18th, fourteen consecutive weeks; the senior term to extend from January 3rd, 1896, to May 3rd—seventeen and a half consecutive weeks.

Respectfully submitted,

CHAS. F. HEEBNER,
Dean.

Toronto, February 5th, 1895.

Appended as exhibits to the Dean's report were copies of the examination papers, and lists of candidates passing. These have already been published.

Messrs. Daniel and Waters moved that the report be received. Carried.

Messrs. Daniel and Waters moved that the report be adopted.

Moved, in amendment, by Messrs. Clark and Hargreaves, that the council go into committee of the whole to consider the report.

This was carried, and Mr. Shuff took the chair.

Clause 1 was adopted.

Clause 2 was referred to the Executive and Finance Committee.

Clauses 3 to 7 inclusive were adopted.

Clause 8 was referred back.

The balance of the report was approved, and, on being reported back to the council, the report as amended was adopted.

The council then adjourned until ten o'clock, Friday morning.

FOURTH DAY.

On reassembling on Friday morning, the vice-president again in the chair, a communication was read from the students, petitioning for permission to hold an "At Home" in the college building, and this was granted.

Moved by J. M Hargreaves, seconded by J. A. Clark: That owing to the absence of the president, who is in Australia, the vice-president be authorized to sign diplomas granted to graduates by this council February 7, 1895, and also fulfil all other duties of the president until his return. Carried.

A communication having been received in reference to the case of Dr. W. A. Ross, of Barrie, who had applied for registration, it was resolved, upon motion of Henry Watters, seconded by John McKee: That the matter of Dr. W. A. Ross, Barrie, be referred to the college solicitors to ascertain if this college is obliged to register him as a chemist and druggist, and should their opinion be that the college is not obliged to register him that his registration fee be returned and his name removed from the register; also the name of the apprentice registered under him.

Report No. 2 of the Executive and Finance Committee was as follows:

GENTLEMEN, Your committee deem that the following will be sufficient appropriations for the various departments for the present term, and that the question can be fully considered after the taking of stock of apparatus and chemicals at the end of the senior course, and will be dealt with by the council in August, which will be in sufficient time for procuring any appliances required next term:

Department of botany and chemistry	$125 00
Department of practical and analytical chemistry	75 00
Department of materia medica and microscopy	100 00
Department of pharmacy	132 00

Your committee would recommend that estimates be procured as to the cost of covering the floor of the upper laboratory, and submitted to the council at the August meeting.

Clause No. 4 of the Report of the Committee on Education referred to us, relating to renewal of contracts of the professors of the college, your committee recommend that the President and Registrar-Treasurer be authorized by this council to sign a renewal of the contract with each of the professors for a further term of two years from the expiration of the present contract, and upon the terms and conditions of the present contracts.

Your committee recommend that at the request of the Board of Examiners *re* purchase of dispensing scales be left over until the August meeting.

Respectfully submitted,

D. H. MACLAREN,
Chairman *pro tem.*

Mr. Daniel then presented Report No. 2 of the Committee on Education, which was as follows:

Clause 8 of Report No. 1 of the Committee on Education was sent back to your committee, and it is recommended that the following be substituted: All apprentices desirous of writing at the qualifying examination in May or December may do so if the term of their apprenticeship terminates by the time of the meeting of the council in the following August or February of each year, provided always that satisfactory evidence is presented to the council that the term of apprenticeship is completed between the qualifying examination and the next meeting of the council. Students are requested particularly to note that they are required to attend the senior course, and that no part of the time spent at the senior course is allowed to count in the term of apprenticeship, and that all former regulations concerning this matter be hereby rescinded.

With reference to the application of Hanley G. Chant, your committee recommend that he be permitted to write at the qualifying examination in December next. Your committee recommend that the following students at present attending the senior course be permitted to write at the qualifying examination to be held in May next, viz., A. Cundle, J. R. Y. Broughton, Mr. Bauld, and O. A. McNichol. With reference to the communication from Mr. E. B. Shuttleworth *re* some books belonging to Rev. Dr. Avison, of Seoul, Corea, your committee, in view of the fact that the books have not been in use for some time, and that it is not deemed desirable at present to expend any further sum on library account, recommend that they be returned as requested. Attached to and forming part of this report is the report of the Dean, which speaks for itself. The work of the session has been thoroughly rehearsed, and the report contains much useful and very interesting information. The exercises in Pharmaceutical Arithmetic are highly commended. The reference therein to a two years' course and higher matriculation your committee strongly approves, but owing to extreme difficulty in procuring the necessary legislation the question cannot be dealt with at present. Your committee recommend that announcements to the number of 1,800 be published, and sent out in the usual manner.

Respectfully submitted,

C. D. DANIEL,
Chairman.

Upon the motion of Messrs. Daniel and McKee the report was received, and the council went into committee of the whole thereon.

Mr. Clark objected to the adoption of the first clause of this report, on the ground that it was an amendment to the by-laws which required a six months' notice of motion. This view of the matter was sustained by the board, and Mr. Daniel was permitted to withdraw the clause and give notice of motion for its adoption at the next meeting of the council.

The report as thus amended was reported back to council and adopted.

BY-LAWS.

Report of the By-laws and Legislation Committee.

Your Committee on By-laws and Legislation beg leave to submit the following report:

1. That John Lavelle be not apprenticed in connection with the Durham Pharmacy, and that the Registrar return him the one dollar, together with his papers.

2. That the request of Mr. Fred Fox be not granted, and that his apprenticeship date twenty-seven months prior to December 1, 1894.

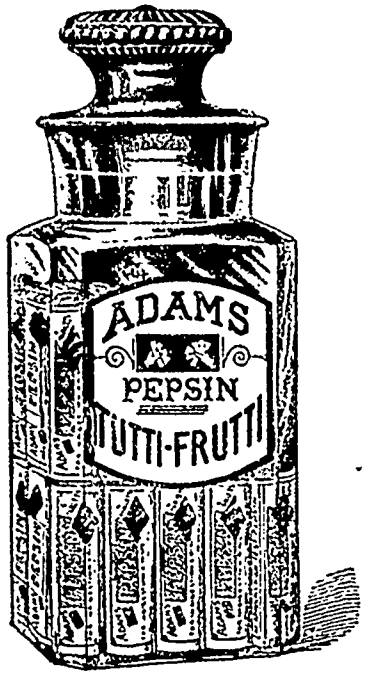
3. That the request of Charles W. F. Howard, of Hagersville, be granted.

4. Regarding the application of Daniel J. McBride, of Orangeville, we would recommend that his apprenticeship date from December 1, 1889.

5. We would recommend, on payment by W. J. Atkins of his fee for 1894, that John A. Robertson's registration date from August 14, 1893.

6. We would recommend that the request of C. O. B. Tweedale be granted.

7. That the request of W. A. Coleman be granted on receipt of an affidavit from Cairncross & Lawrence to the Registrar of the college, to the effect that said W. A. Coleman commenced his apprenticeship with them on July 11th, 1894.



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WITH **Adams' Pepsin Tutti Frutti**

ASK YOUR WHOLESALER FOR IT.

Advertising matter to decorate your store window sent free on application.

ADAMS & SONS CO.,

11 and 13 JARVIS STREET, - - - TORONTO, ONT.

LEATH & ROSS'S

WELL-KNOWN BRAND OF

Homœopathic Medicines

IN GREAT DEMAND EVERYWHERE NO CHEMIST SHOULD BE WITHOUT THEM

PARCELS ENCLOSED DAILY to any of the London Wholesale Houses to Save Carriage.

OUR **£5** HANDSOME AND ATTRACTIVE **CASE** FITTED COMPLETE

NO CHARGE WHATEVER FOR THE CASE

THIS HANDSOME AND IMPROVED BENT-GLASS

CHEMIST'S COUNTER SHOW CASE

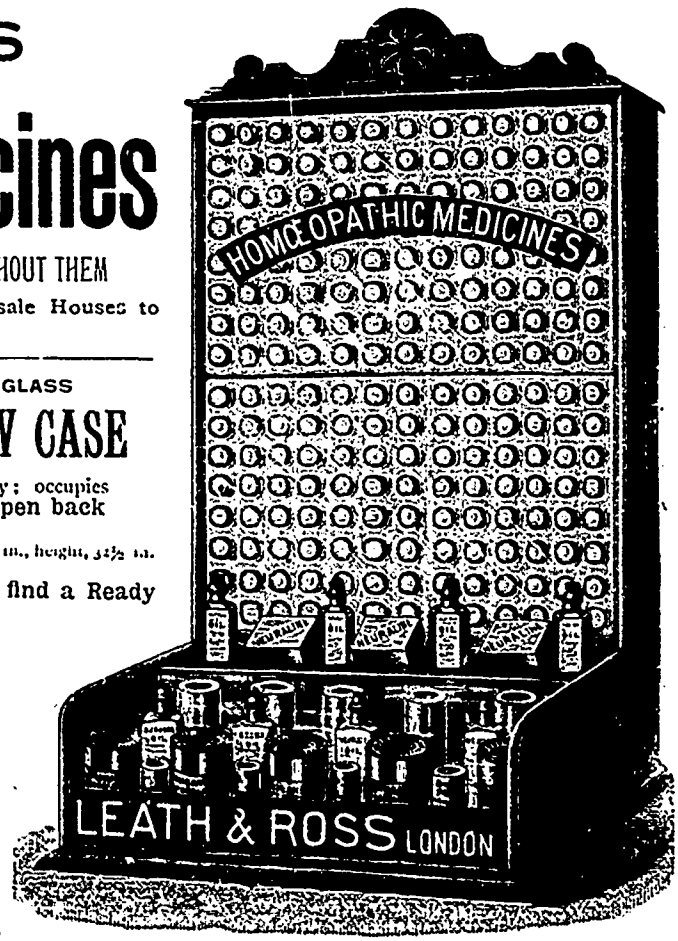
Stands unrivalled for style, convenience, and beauty; occupies but a small space on the counter, and is made to open back or front, to suit the convenience of the purchaser.

DIMENSIONS—Length, 19¾ in., width (from back to front), 11¾ in., height, 31½ in.

Nearly 3000 Chemists stock our Medicines and find a Ready Sale for Them.

Tinctures, Pilules, and Camphor

1/- Size in great demand everywhere, and can be had in any strength from the mother, 1x to 1, and upwards. 3/6 Per doz. Cash



LEATH & ROSS, Wholesale Export Homeopathic Chemists

9 Vere St., Oxford St., W. (Wholesale Department)

And Jewry House, Old Jewry, E.C.

LONDON, ENG.

8. That the request of G. W. Henderson be granted.

9. That Clark H. W. Newton's registration date from November 19th, 1894. The council have no power to register apprentices prior to the date of certificate of qualification.

10. That when Mr. H. F. Gordon pays his fees and forwards an affidavit confirming date of apprenticeship agreement that the request of James Dawson be granted.

11. We would recommend that on payment of the sum of $4 by Dr. McLaughlin for the year 1892, when he was a partner with Dr. W. J. Anderson, that Frank McKechnie be registered from February 10th, 1892, that being the date of his qualification papers.

12. That the application of J. L. McPhee be granted, registration to date from May 1st, 1894, on receipt by the Registrar of an affidavit from W. McDonald to the effect that J. L. McPhee was apprenticed with him on April 28th, 1894, the dates apparently having been erased on the apprenticeship papers.

13. That George J. Mitchell be registered from date of educational qualifications, September 6th, 1894. Your committee regret that druggists should take as apprentices young men without the necessary education to qualify.

14. That Elmer J. Bellman be allowed to register from November 24th, 1893, that being date of certificate of qualification.

15. That Herbert N. Ray be allowed to register from March 12th, 1888, that being date of the certificate of qualification.

16. Regarding the letter of B. F. Casswell, the committee would authorize the Registrar to reply that such a position would be contrary to the spirit and intention of the Act.

17. That the application of James Brown be granted.

18. That the application of C. J. Wynn be granted.

19. That H. G. G. Craig's application for registration be granted by Dr. J. W. Shillington paying his fees for 1892, and proof that he has been with a qualified druggist since.

20. That the application of J. J. Speight be granted.

21. We find that William Granville does not produce the necessary educational qualifications to register under the Pharmacy Act.

22. That the Registrar forward to R. Currie and G. White the qualification blank forms required by this college.

23. That the application of Mr. G. H. Cameron cannot be granted, and that the letter of J. K. Strachan, Registrar of the Pharmaceutical Association of the Province of Manitoba, be referred back to the council for consideration and action.

24. That Chas. McDonald, of Renfrew, be granted his diploma upon passing his examination as required by the Pharmacy law of Ontario, he having completed his term of apprenticeship in full according to the Pharmacy Act in force in 1885.

25. Regarding the letter of H. F. McCarthy, of Ottawa, *re* apprentice, we would recommend that the Registrar forward to Mr. McCarthy a blank form of educational qualification which the apprentice might pass at once, if capable, and instruct him that we have no power to register an apprentice until we are in possession of said qualification.

26. Regarding the application of W. E. Bauer, we would recommend that he be allowed the time served in Ontario under a duly registered chemist, viz., from the 16th July, 1888, to September 8th, 1890.

27. That the council has no power to grant the request of Raymond Fisher.

28. Regarding the application of W. Applebee, we would recommend that his request be granted on furnishing to the Registrar of the college the necessary affidavit of C. R. Sneath.

29. That the application of John B. Sawdon be granted on his sending to the Registrar proof of his necessary educational qualifications at that date.

30. That the application of J. T. Curts be granted on forwarding to the Registrar an affidavit of firm from his employers.

31. That the application of J. H. Bennett be not granted.

32. That George J. Hunt be allowed to go up for examination, providing he can produce evidence to the Registrar showing that his full time of apprenticeship has been served with a duly qualified pharmaceutical chemist.

33. That the application of Morley Prust be granted.

34. Regarding the request of John A. Traynor, of Lanark, the evidence presented is so conflicting and unsatisfactory that your committee cannot grant it.

35. Regarding the application of Clayton Copeland, we would recommend that his registration date from time of his educational qualifications.

36. Your committee have had before them the application of Mr. J. R. Watson to be allowed the term of fifteen months, which he alleges he served under articles of apprenticeship with Mr. A. B. Petrie, of Guelph, as well as the affidavits of George Williams, grocer; Thos. M. Till, deputy collector of revenue; Alex. Stewart, druggist; W. O. Stewart, physician; and W. J. Graham, decorator, in support of same. We beg to report that we do not feel justified in entertaining the same.

37. Regarding the request of J. W. Campbell, of Kingston, your committee recommend that it be granted.

All of which is respectfully submitted.

C. K. McGregor (Chairman).
W. A. Karn.
J. M. Hargreaves.
J. G. Shuff.

Mr. McGregor moved the adoption of the report, but an amendment to go into committee of the whole for its consideration was carried, and the report was taken up clause by clause. The only clause which created any discussion was the last but one, and, after debating it at some length, it was moved in amendment by Messrs. Watters and Mackenzie that the clause be struck out and the following substituted: "That the application of J. R. Watson be granted." This was carried, and the report, as amended, was adopted.

Moved by C. D. Daniel, seconded by C. K. McGregor, and resolved: That in view of the fact that a satisfactory letter has been received from the secretary of the Pharmaceutical Society of the Province of Manitoba with reference to the recognition of our graduates that we agree to accept graduates from Manitoba college, provided they have complied with the regulations of a standard equal to our own.

Moved by Henry Watters, seconded by C. K. McGregor, and resolved: That the vice-president be requested to watch proceedings in the Ontario Legislature, and in the event of any bill or bills going before the House affecting druggists that he be empowered to call a meeting of council, should he deem such necessary.

Moved by C. D. Daniel, seconded by J. M. Hargreaves, and resolved: That $3,000 additional insurance be placed upon the contents of our college building.

Moved by Henry Watters, seconded by John McKee, and resolved, That the council do now adjourn to meet in August, or at the call of the president.

Formula Wanted.

R.R.S. asks for a formula for a toothache gum, also mode of manufacture.

To Meet Cutting in Prices.

The cutter in patent medicines is springing up in various towns, and, while it may be made a little difficult for small dealers to get stocks at first, it is impossible to prevent it in the long run, and it is somewhat hard, such being the case, to ask drug jobbers to go outside of their usual methods in reference to selling direct;

It prevents the handling of these goods in other channels, and cannot in any way prevent cutters from procuring them. The cutter has come to stay, this has been clearly proven both in this and other countries, and you cannot prevent a man with money from getting what he wants. We are not in sympathy in any way with any one demoralizing prices, and would do anything to assist maintaining prices of patent medicines, but "facts are stubborn things," and if wholesale grocers carry stocks of patent medicines it will only tend to increase the trouble. There is no doubt from past experience that at the first sign of a cutter starting the only way to meet him is by the retail druggist putting down prices so that no capital can be made out of it, and when these men find they are doing business for nothing it will die out much quicker than by opposition of any other kind.

Little Things.

Little things are the secrets of success in business, in science, in art, in morals, in knowledge—in every pursuit in life. Careful attention to little things brings to a successful performance of big things. In the universe there are no trifles. As Angelo said: "Trifles make perfection, and perfection is no trifle." Most of the great discoveries of the world have resulted from attention to little things. Study the history of bankruptcies and failures in business and in life, and you find them largely men who had no talent for looking after details. Moments are the golden sands of time. An hour every day withdrawn from frivolous pursuits would make an ignorant man a well informed man in ten years.

The happiness of life is made up of little things, little courtesies, little kindnesses, little deeds, pleasant words, genial smiles, a friendly letter and good wishes. It is so in character.—*Exchange.*

Medical Practitioners in Austria.

Statistics recently published by the Superior Sanitary Council of Austria show that in the various kingdoms and countries represented in Reichsrath there were, at the end of 1893, 8,149 medical practitioners. Of these, 6,728 were doctors of medicine, and 1,421 were grade practitioners.

Let Us Reason Together.

When goods don't turn out exactly as ordered, don't forget the Golden Rule—treat the shipper as you would wish him to treat you. Consider that he is anxious to fill your order right—that he wants to give you just what you ordered, and that he has used all possible diligence to have this done, but that mistakes are liable to occur. The wrong brand may have been shipped; a case may have been shipped instead of a dozen; you may have ordered a box, thinking of one size, and he may have sent you what he considers two half boxes to fill the order. Many things may happen, and if you suspect the shipper of evil intentions and a desire to get the best of you, instead of giving him credit for having done the best he could, you will not act genteelly. You will ship back without notice. You will put him to perhaps unnecessary expense; the goods may be perishable, and by the time they get back be utterly worthless. Therefore, do what is *right and fair.* Take the goods, care for them, write the shipper at once fully what is wrong. Don't wait for a salesman, that may be several days. Write at once, and explain clearly. Don't simply say to him, "The goods are not as ordered, and are here subject to your order." How can he tell what is not as ordered? Explain, then he can understand and write you intelligently. If the goods are perishable, assort them at once and save the good; and if there should be a small part in bad condition, don't say the whole lot is spoiled. Be fair. This you are entitled to be as a man, and as a merchant.—*Mercantile Journal.*

A Manual of Organic Materia Medica and Pharmacognosy. An introduction to the study of the vegetable kingdom and the vegetable and animal drugs, etc., etc. By Lucius E. Sayre, Dean of the School of Pharmacy, Professor of Materia Medica and Pharmacy in the University of Kansas, member of the Committee of Revision of the United States Pharmacopœia. Philadelphia: P. Blakiston, Son & Co. A volume of 550 pages with over 500 illustrations, the majority of which latter are from original drawings. An extended review of this work will appear in our next issue.

Kola is both a necessity and a luxury to the inhabitants of a large portion of Equatorial Africa, where the fresh seed is employed as a masticatory with a view to overcome fatigue, hunger, and thirst. The main reason why it has not obtained the position it deserves in this country as a tonic stimulant is that it has usually heretofore been imported in a dried condition. F. Stearns & Co., of Detroit, Mich., are the first to prepare a preparation made from the fresh (undried) Kola nuts, and offer "Kolavin," a delicious tonic wine and powerful cerebro spinal stimulant. This retains undiminished the same peculiar properties possessed by the fresh Kola nuts, and physicians desiring to test this new product can easily obtain samples for clinical experiments by making application for same.

Soda Water Apparatus.—We would call the attention of our subscribers to a new style of soda water apparatus, designed and manufactured by the Fletcher Manufacturing Company of this city, whose advertisement appears on another page. This fountain has been especially designed for druggists' use, offering many advantages over the old style marble fount, not the least of which is the small cost compared with the marble fountain. The pneumatic patent syrup jar has many points to recommend it. Among others we may mention its great superiority for rapid serving, and for keeping the syrups cool. The jars are made from pure block tin, silver-plated inside and out. The jars are sunk through the marble into the cooling box, which fits directly under the counter, where main coolers for fountain are placed. Thus the soda water and syrups are kept cool by same ice. The Frigid Fount (new this season) has, besides the main coolers, a series of coil coolers placed inside the body of the fount. The body of fount is filled with ice, which must of necessity ensure cool soda water. We understand that Messrs. Hooper & Co, of King street west, in this city, have ordered one of these fountains. We predict a large sale for this apparatus, which is bound to become popular, and must congratulate the manufacturers on producing an article which is a credit to Canadian manufacturers.

Amylocarbol.—A mixture composed of 9 parts of carbolic acid, 150 parts of soap, 160 parts of amylic alcohol, and water enough to make 1,000 parts, is designated amylocarbol.

Chloral-caffeine is a soluble compound of chloral and caffeine (*Phar. Centralb.*), obtained by uniting in an alcoholic or aqueous solution by process claimed to be patented.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.

BUSINESS WANTED.

DRUG BUSINESS WANTED. MANITOBA OR British Columbia preferred. Can pay spot cash. All communications confidential. Give full particulars. Address Box 205, Omemee, Ont.

BUSINESS FOR SALE.

DRUG BUSINESS FOR SALE IN A THRIVING town, N.W.T. Stock consists of drugs and stationary, amounting to $1,800. For information write to the Canadian Druggist.

FIRST-CLASS DRUG BUSINESS FOR SALE, east of Toronto. Stock about $6,000. Good reasons for selling. Apply to R., care of Canadian Druggist.

LONG-ESTABLISHED, PROFITABLE, AND successful proprietary articles for sale. An excellent opportunity for a live man to secure good business, capable of great extension at very low figure. Apply to Box 20, office of Canadian Druggist.

SITUATIONS WANTED.

SITUATION BY DRUG CLERK, 4½ YEARS' EXperience; can furnish good references. Am ready to fill position by the 15th inst. Address, D. W. H., care of this journal.

SITUATION WANTED BY DRUG CLERK, with about four years' experience; can furnish references from present employer. good dispenser. Address, H. S. Pannell, 248 Alfred Street, Kingston.

SITUATION WANTED AS MANAGER OR ASsistant, by graduate of O.C.P. and Phm.B. Five years' experience, city and town. Good references. Moderate salary. Address, "Pharmacist," Angus, Ont.

WANTED POSITION IN DRUG STORE BY A young man with four years' experience. Best of references; strictly temperate. Address, W. O. Helan, Walkerton, Ont.

SITUATION WANTED AS DRUG CLERK; three and a half years' experience; attended one term at Ontario College of Pharmacy; good references from present employer. Address, B. M. Copeland, 136 Catherine St., Hamilton.

When Others ...Fail

You will come back again to the genuine

MENTHOL COUGH DROPS

Like every other successful article they have been imitated, but the imitation only helps to show what the genuine really is.

Toronto Biscuit and Confectionery Co.

7 FRONT ST. EAST, TORONTO

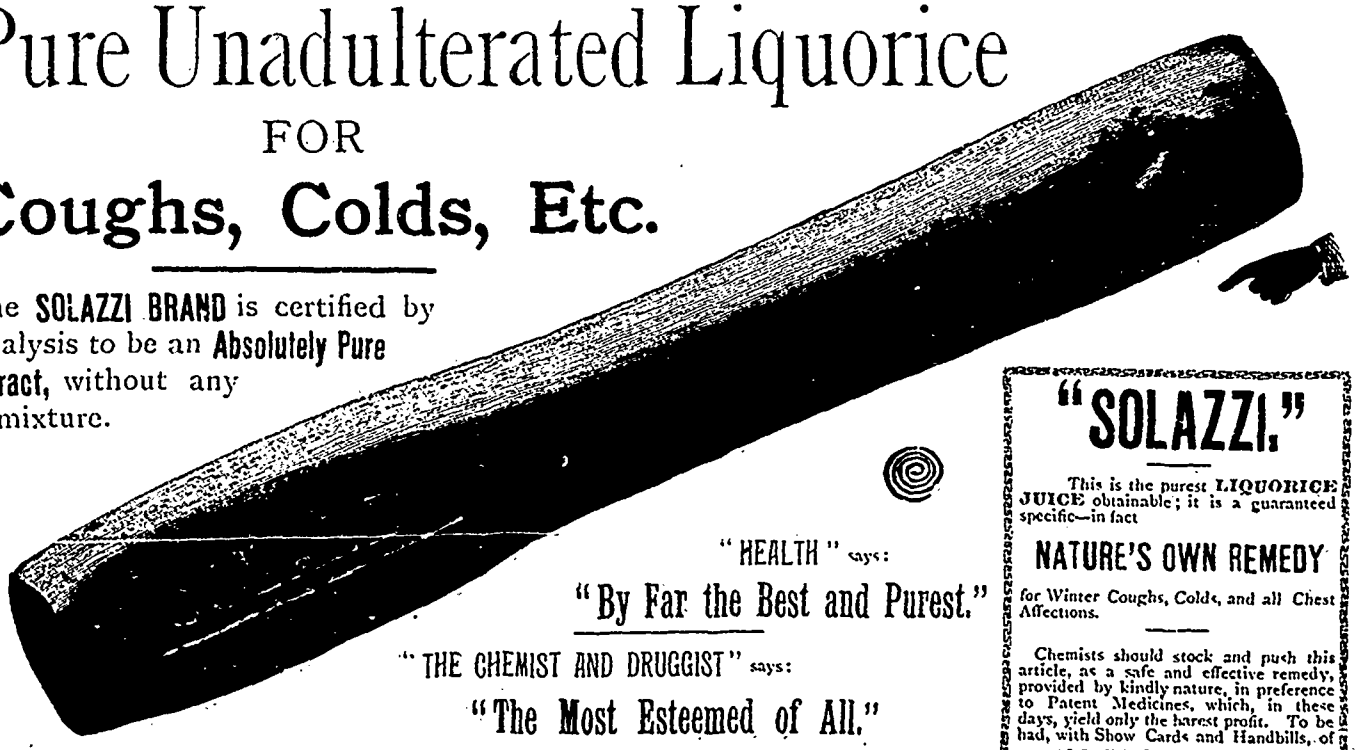
ONE OF THE BEST SOOTHING AGENTS OR DEMULCENTS KNOWN

Pure Unadulterated Liquorice

FOR

Coughs, Colds, Etc.

The **SOLAZZI BRAND** is certified by Analysis to be an **Absolutely Pure Extract,** without any admixture.



"HEALTH" says:

"By Far the Best and Purest."

"THE CHEMIST AND DRUGGIST" says:

"The Most Esteemed of All."

"SOLAZZI."

This is the purest **LIQUORICE JUICE** obtainable; it is a guaranteed specific—in fact

NATURE'S OWN REMEDY

for Winter Coughs, Colds, and all Chest Affections.

Chemists should stock and push this article, as a safe and effective remedy, provided by kindly nature, in preference to Patent Medicines, which, in these days, yield only the barest profit. To be had, with Show Cards and Handbills, of

ALL WHOLESALE HOUSES.

To be Obtained of all Wholesale Houses

A Warning Cork for a Poison Bottle.

R. Watson Councell (*Monthly Magazine of Pharmacy*), proposes that the cork for a poison bottle be cut in two, horizontally, near the small end, and the entire cork threaded on a string, with a knot below the lower segment of the cork. The free end of the string is to be attached to an additional label bearing the word poison. The cork being fitted to the bottle containing poison there are several things which attract attention, even in the dark. First, the string; second, the label (bearing the word poison); if these are not noticed, then if the cork is seized and pulled, only the upper segment comes away, sliding on the string, and the contents of the bottle cannot be poured out. It is necessary to pull on the string itself in order to remove the cork entire. This appliance can be made by any one, costs nothing, and suits any bottle. On the bottle itself the poison label should always be stuck above the directions, so as to be seen first, as, when the poison label is placed at the bottom of the bottle it is often covered by the hand grasping the bottle and is not seen.

Tablet Triturates.

By C. S. Hallberg.

None of the various novelties in pharmacal science has leaped into favor as quickly as have the tablet triturates. Although brought into notice by Dr. Fuller, of New York, some ten years ago, it is only during the past three years that they have been exploited by manufacturers. The success that they have met with is tremendous, and if their employment should continue in the same ratio it will seriously threaten dispensing pharmacy. Of the various forms in which medicines have been presented, from the elixir to the coated and compressed pills and lozenges, the tablet triturate is by far the most insidious. There is no fear, however, that the triturates have come to stay, but, on the other hand, a probability that they will disappear as quickly as they came. They owe their popularity to the fact that dry medication is favored by many physicians; to the claims set forth as to their ready solubility; and, above all, to the fact that the triturates have enabled the physicians to supply small doses in an elegant and convenient form at a very small cost to his patients, thus affording him an advantage homœopathists have so long enjoyed.

These apparent advantages will not stand the searchlight of investigation. Dry medication, except for specific purposes or local effect, or in the case of a few exceptional remedies, is the most unsatisfactory method of administration of medicine.

Therapeutic effect is largely a question of solubility in the system. As a general rule the more dilute the drug the quicker and more certain the effect. The effect is quicker for the same quantity of drug from an infusion than from a tincture; and in the same ratio more prompt is the effect from a tincture than a fluid extract, just as the effect is greater from a fluid extract than from an extract, and from an extract than from a resin such as podophyllin.

But this is not the only advantage that liquid medicants have over dry or powdered forms. Many substances do not act when taken internally because reaction of the fluids of the body is not favorable to their solution and consequent absorption. Thus oxides, carbonates, alkalies, etc., are not active if the fluids be alkaline, while the effects of other substances, such as chloroform, are impaired through the effect of an acid condition of the fluids. The liquid form of medicine permits addition of acids and alkalies to correct the respective conditions and to insure the prompt effect of the remedy. Addition of acids to tonic bitters is a familiar practice. In this way an effect far more prompt is obtained than in neutral media.

The so-called idiosyncrasies, toward or untoward effects, of many drugs are probably due to the fact that they are not properly dissolved or absorbed by the system, and aside from the reaction of the liquids, may also be due to the inactivity of excretory organs, such as the kidneys. The cumulative effects of drugs, as in the case of strychnine, are undoubtedly due to the comparative insolubility of the alkaloid or its salts in the alkaline fluids; when the reaction changes to acid, then the strychnine which may have accumulated in the system is quickly dissolved, with not infrequently the most dangerous consequences. As an illustration in one instance, a person for whom strychnine tablet triturates (1.50 grain) had been prescribed, obtained a bottle of 500 and afterwards a second bottle, of which he complained after due use that it had no effect. These triturates in all probability contained strychnine; hence it is likely that it remained insoluble in the system.

Another reason why organic drugs are not adapted to dry medication, especially in tablet triturate form, is that these latter are made from alkaloids, and not from preparations of the drug. If the prompt certain effects of a drug be required, in solution, is of much greater importance that when the full effect is desired the drug (in most instances) be used and not an alkaloid nor other active principle. Notwithstanding claims made, for commercial reasons, the opinion that alkaloidal drugs are valuable only because of the amount of alkaloids they may be shown to contain, has not been sufficiently demonstrated to be incorporated in the United States Pharmacopœia of 1890 to any greater extent than in the United States Pharmacopœia of 1880, except as to one drug, nux vomica. The dose of extract of nux vomica is given by a standard authority (National Dispensatory) at one-half grain, "which may be gradually increased to gram 0.1 or 0.2, when the specific effect of the drug is sought."

Based upon these doses of the extract the equivalent quantities of the other preparations are presented (in tabular form), and also the amount of alkaloids and strychnine in each.

COMPARATIVE DOSES OF NUX VOMICA PREPARATIONS.

Extract	Fluid	Extract	Tincture		Alkaloids		Strychnine.	
gm.	c. c.	Min.	c. c.	min.	mg.	gr.	mg.	gr.
0.03	0.3	5	1.5	25	4.5	1.15	2.25	1.30
0.06	0.6	10	3.0	50	9.0	½	4.50	1.15
0.10	1.0	16	5.0	80	18.0	¼	9.00	⅛
0.20	2.0	32	10.0	160	27.0	⅜	13.50	3.16

This table demonstrates that the weakest preparation (the tincture) is relatively the strongest compared with the drug strength of the fluid extract, the extract, or the alkaloids. That the full effect of nux vomica is represented by the alkaloids is no more true than that the effects of opium are represented by morphine, or that cinchona is completely represented by the alkaloids. Medical men should begin to realize more generally these conclusions:

(1) That when full, prompt effects of any drug is desired it must be prescribed in the form of a tincture made from the crude drug of the best quality, and not from the fluid extract. (2) That alkaloids cannot replace their respective drugs any more than synthetic products have displaced the alkaloids. (3) That by using tablet triturates they are simply poularizing the form of self-medication, the triturates now being put up and numbered according to the disorder for which they are recommended. (4) That old-time patent medicine, herb women, and Indian and Chinese travelling fakirs are preferred by many persons to modern physicians because the former give them "good, old reliable medicines," that "work promptly and effectively," instead of dimethyl-phenyl-isopyrazolon, acetphenetidin, and the hosts that have come and gone.

The quicker physicians appreciate that the materia medica and pharmacy of their

fathers is their best friend the better for the best interests of the medical profession.—*Retail Druggist.*

The Passing of the Tablet Fad.

Unquestionably one of the greatest evils from which legitimate pharmacy and medicine suffer is the indiscriminate use of compressed tablets. Beginning, in a small way, they have gradually increased in use until now they threaten to overthrow all other form of preparations. Their convenience, portability, and cheapness are elements that appeal to many, and in the case of inorganic chemicals and well-defined organic compounds, like strychnine, morphine, atropine, etc., they afford, in many cases, a valuable means of drug-administration, but the danger to legitimate pharmacy and medicine lies not in the use of the tablet, but in its abuse; and it is upon this matter that we wish to speak.

In the evolution of drug administration different forms of preparations have successively arisen. Crude drugs have been followed by infusions, and these by tinctures, extracts, fluid extracts, and active principles. None of these, however, has wholly replaced the others. Each class has shown especial value, and met special indications in disease treatment. Hence, as a result, medicine has had her implements of treatment largely increased, and pharmacy has broadened in work.

But in the use of tablets a different result is sought. The tablet faddists claim that all medicinal preparations should be given in the form of tablets, and, like all extremists, they are wrong. After the fad is over, it will be found that tablets afford a valuable means of drug administration in certain cases, and may be used at times with advantage. That they will permanently replace all the older forms of preparation, we do not believe possible, especially in the case of preparations of drugs of organic origin, for the reason that tablets cannot be made to contain the same proximate principles, in the same soluble form, and in the same proportion, as found in various galenical preparations. Even if it were possible to do this, the tablet does not afford the readiness of assimilation and resulting promptness in action given by other forms of preparations, notably the liquid ones.

Now, when physicians learn that they cannot get as good therapeutical results with tablets as with other forms of medicaments, they will use tablets for special cases only—after the present fad subsides, for like all other men, including the pharmacist, the modern physician must have his fad.

The abuse of the tablet lies in the endeavor made to have it replace all other forms of drug preparations. Notably is this so in the case of tablets alleged to represent tinctures and fluid extracts. Granting that the liquid preparations be rightly made, we believe that the heat used in concentrating and drying them with the diluent to make the powder for the tablet must result in an alteration of the proximate principles of the drug, both in proportion and kind.

Heat is a most important factor in altering the character and amount of active principles in a drug preparation. Take, for example, digitalis infusion. M. Roger has shown (*Amer. Jour. Pharm.*, 1889, 174) that the toxicity of digitalis infusion is very notably diminished when the product of maceration is simply concentrated on a water bath; from 90 to 150 times the amount of the heated product being required to cause death, as compared with the cold water product. What is true of infusion of digitalis when heated is very probably true of other drug preparations.

How the commercial tablets alleged to represent galenical preparations are made is known only in a general way; each manufacturer following his own working details. We have been informed, however, on good authority, of a practice pursued by one manufacturer in the making of tablets of the so-called narcotic tinctures (*i.e.*, aconite, belladonna, digitalis, etc.), which, if true, is open to the severest censure. This manufacturer, finding that his tablets of these tinctures stuck together on keeping in stock, adopted a new procedure. Instead of making the tablets contain the tincture in minims, as represented, he makes a fluid extract of the drug, evaporates to a thick consistency, washes with petroleum benzin to remove resin, coloring matter, and benzin soluble extractive, spreads on plates, dries with heat, and makes up into tablets.

Now, apart from the question as to whether this benzin treatment removes or alters any active principles or not, the fact remains that such tablets are not what they are represented to be. Instead of being made of tinctures, as claimed, they are made of fluid extracts, concentrated by heat, washed with a solvent that removes certain proximate principles, and then heated to eliminate the persistently remaining traces of benzin, which heat probably modifies, if it does not destroy, the remaining proximate constituents. The most enthusiastic tablet faddist can hardly claim that tablets made in this way are fit to replace properly-made tinctures.

Whether this practice is followed by other manufacturers or not we do not know, but we believe that the surest way for physicians to get the best therapeutical results with drugs of organic origin is to use properly-made tinctures and other galenical preparations made by pharmacists. These preparations may vary somewhat, from natural causes, in their proportion of active principles, but they vary no more than the varying personalities of sick patients, and as they are usually given until physiological effects are had the danger in the use of non-standardized preparations of potent drugs is more apparent than real, and has been greatly exaggerated.

We believe that tablets have had their day, or rather have reached their zenith of popularity, and like every form of drug preparation that has preceded them will pass away, in part at least, to make room for something else; and when this takes place physicians will then be found to cry to the newcomer, as they do now with the older galenical preparations and the compressed tablet: "*Le roi est mort. Vive le roi!*" It should be the aim of physicians and pharmacists everywhere to work together to discourage the abuse of the tablet form of drug administration. —*Alumni Report in Journal of Pharmacy.*

Origin of the Term Anæsthetic.

Edgar Willet, in a communication to the *British Medical Journal*, records a conversation he had with Oliver Wendell Holmes, when the latter was in England in 1886. The discussion had turned on the subject of anæsthetics, when he said: "Do you know the origin of the term?" On receiving a negative answer he replied, "Then I will tell you. I believe it was I who invented it, and this is how it occurred. Many years ago, when ether and chloroform were only just coming into use, Morton, the dentist at Boston, who was largely responsible for the introduction of ether, came to me and asked me if I could suggest for him a word which could be used for both drugs, and also a word which would describe the effect produced by their inhalation. After trying two or three words, æsthetic occurred to me as meaning sensitive, and in consequence anæsthetic as being insensitive easily followed, with anæsthesia for the condition produced. That," he concluded, "was, I believe, the origin of the term."

Doctor-Ridden.

History is full of proofs of the degradation of the calibre of nations which become subject to the tyranny of a priesthood. We in this country have a fair experience of the effect of the predominance of lawyers in our legislature, and in our public affairs generally, though, perhaps, from this calamity we get off with no worse result than a depletion of our purses. We have not yet had the spectacle of a doctor-ridden nation, though we owe no thanks to the doctors themselves for this exemption. They have done their utmost to establish a reign of terror over us, and to dictate laws which, if carried, would place us all in their power, and we are not sure that they are not increasing their influence to an almost dangerous degree, through their parliamentary committees, associations, and journals. There is, however, we are glad to believe, a healthy prejudice against the assumptions which at present provide an atmosphere of suspicion around their proposals, which will always, we hope, preserve us from absolute submission to their pretensions.—*Chemist and Druggist.*

Formulary.

BOROSALICYLAT.

This is the name given to a compound made by bringing together two molecules (676 parts) of sodium salicylate and four molecules (124 parts) of boric acid. They are rubbed together, and the damp mass then dried. It is an antiseptic, and in the following combination is an excellent application for chilblains:

Borosalicylat	℥v.
Arnica glycerine	℥j.
Lanoline or lard	℥ivss.
Vaseline	℥vss.

Mix.

The arnica glycerine is made by macerating 1 oz. of arnica flowers in 9 oz. (by weight) of glycerine for eight days.—*Chemist and Druggist.*

EMOLLIENT CREAM FOR CHAPPED HANDS

Quince seed	℥iss.
Boric acid	℈j.
Glycerine	℥ij.
S.V.R.	℥iij.
Carbolic acid	gr. x.
Eau de Cologne	℥ij.
Oil of lavender	♏xx.
Glycerite of starch	℥ij.
Water to	℥xvj.

Dissolve the boric acid in 8 ozs. of water, macerate the quince seed in the solution for three hours, strain, add the glycerine, carbolic acid, and glycerite, and mix well. Mix the S.V.R., eau de Cologne, and lavender oil, add the mixture to the mucilage, and mix the whole thoroughly.—*Chemist and Druggist.*

CEMENT FOR PORCELAIN LETTERS.

Solution sodium silicate	30.0
Slaked lime	45.0

Mix and add.

Litharge	30.0
Glycerin	enough.

Make a paste and use immediately.

PASTE FOR BOTTLE LABELS.

Zweiffler (*Suddeutsche Apotheker Zeitung*), after many experiments, prefers a paste of dextrin, to which thymol, in the percentage of 1 part to 2000, has been added. He maintains that the thymol, while not interfering in the slightest with the great adhesive properties of dextrin, makes it proof against the action of moisture, which has hitherto been the great objection to it.—*National Druggist.*

TAN AND FRECKLES.

℞ Potassii carbonatis ℥iij.
Sodii chloridi, ℥ij.
Aq. aurantii flor., ℥ij.
Aq. rosæ, ℥viij.
M. Ft. lotio. Sig. Face-wash *Bartholow Ex.*

A UNIVERSAL POLISH.—That is what the *Corps gras industrielles* calls the following, which it claims acts equally well upon unvarnished, or unpolished, wood and old (varnished or polished) furniture: Dissolve in 1,000 parts of alcohol of 94, 15 parts lavender oil, 50 parts gum copal, 365 parts shellac, 45 parts gum acroid (black-boy gum, New Holland resin), 30 parts gum elemi, and 30 parts benzoin. The solution is nearly colorless. It is used as other polished and lacs are.

DEPILATORY SOAP.

Glycerine	453
Tallow	907
Cocoanut oil	907
Castor oil	1844
Soda lye, 33 p.c.	1814
Starch	113
Sodium sulphate	907

—*Corps Gras Industr.*

DEPILATORY PIGMENT.

Iodine	gr. 24
Oil turpentine	m. 40
Castor oil	fl.dr. 1
Alcohol	" 5
Collodion..enough to make fl. oz.	2

Directions: Apply daily for three days.
—*Practitioner.*

CEMENTS TO FIX METALS TO GLASS.—(1) Make a saturated solution of alum, and use this to make a paste of plaster of paris. (2) Plaster of paris made into a paste with boiled linseed oil. (3) Smear the surface of the glass with india rubber solution, and do the same with the surface of the metal. Allow both to stand till the smell is gone—perhaps 24 hours—in a warm room. Then slide the one upon the other, and they will stick together. If the space between the two is appreciable—that is, more than paper thickness—interpose a collar of pure rubber of the proper thickness; cut a strip of the right width, and of a length that will wrap round without overlapping. Smear the ends that abut and the glass with rubber solution, and let the solvent evaporate, then wrap the collar round the glass, and the ends will unite.—*Phar. Era.*

NEW PROCESS FOR SYRUP OF RHUBARB.

The present process for this syrup is wasteful. If the spirit is recovered by distillation, most of the aroma of the rhubarb and coriander pass over, and, of course, is absent from the syrup. I would suggest the following formula.

Rhubarb root	8 oz.
Coriander fruit	8 oz.
Rectified spirit	5 oz.
Distilled water	q.s.
Refined sugar	6 lbs.

Powder the rhubarb and coriander, using No. 20 sieve. Place the portion which, after several times powdering, refuses to pass the sieve at the bottom of the percolator, then add that which passes the sieve, using but little pressure. Mix the 5 ounces of spirit with 16 of distilled water, and pour on the powders. Macerate thus for twenty-four hours, then continue to add distilled water until 52 ounces have passed. In this dissolve the sugar with a gentle heat. Percolation may be continued until about 3 pints more have passed, this evaporated by water bath to 4 ounces, and strained into a syrup. I enclose a sample prepared thus, also one made strictly P. B. (except that I recovered 6 ounces of spiritus rhei c. coriand. of S.G. .897 by distillation). Should like your opinion as to aroma, etc. The P.B. is the brighter, because the liquid was filtered through paper.

Commenting on the above, the editor of the *Journal* says: "The aroma of the sample of syrup of rhubarb prepared by the suggested process is decidedly finer than that of the accompanying P.B. specimen. Besides being less clear, however, it also appears more liable to fermentation than the latter, the cork having been forcibly ejected from the bottle containing it, and the fermentative action continuing for some days, whereas in the P.B. syrup no such action was apparent under identical conditions."—*J. Clower, in Pharmaceutical Journal and Transactions.*

Cough Drops Formulas.

Though somewhat obscured by unusual technical directions, the following will no doubt prove intelligible, and may offer valuable suggestions:

MONTPELIER COUGH DROPS.

Brown sugar	10 pounds
Tartaric acid	2 ounces
Cream of tartar	1½ ounce
Water	1½ quarts
Aniseed flavoring	a sufficient quantity

Melt the sugar in the water, and when at a sharp boil add the cream of tartar. Cover the pan for five minutes. Remove the lid, and let the sugar boil up to crack degree. Turn out the batch on an oiled slab, and when cool enough to handle mould in the acid and flavoring. Pass it through the acid drop rollers, and when the drops are chipped up, and before sifting, rub some icing with them.

MEDICATED COUGH DROPS.

Light brown sugar	14 pounds
Tartaric acid	1½ ounces
Cream of tartar	½ ounce
Water	2 quarts
Aniseed, cayenne, clove, and peppermint flavorings	a few drops of each

Proceed as before described, but when sufficiently cool pass the batch through the acid tablet rollers, and dust with sugar.

HOREHOUND CANDY.

Dutch crushed sugar	10 pounds.
Dried horehound leaves	2 ounces.
Cream of tartar	¾ ounce.
Water	2 quarts.
Aniseed flavoring	sufficient.

Pour the water on the leaves and let it gently simmer till reduced to three pints; then strain the infusion through muslin, and add the liquid to the sugar. Put the pan containing the syrup on the fire, and, when at a sharp boil, add the cream of tartar. Put the lid on the pan for five minutes, then remove it and let the sugar boil to stiff boil degree. Take the pan off the fire and rub portions of the sugar

against the side until it produces a creamy appearance; then add the flavoring. Stir all well and pour into square tin frames, previously well oiled.—*Confectioners' Union.*

CHEAP COUGH STICKS.

Brown sugar	12 pounds
Glucose	8 pounds
Tartaric acid	1 ounce
Water	2 quarts
Aniseed flavoring and jetoline coloring	sufficient

Turn the sugar and glucose into the water, and, when dissolved, boil up to weak crack degree. Pour on an oiled slab, and add the flavoring and coloring. Work these well in, and run the batch through the flat stick rollers, cutting the sticks to weigh 1½ ounces each. Wrap separately in waxed paper.

PAREGORIC COUGH DROPS.

Brown sugar	14 pounds
Cream of tartar	¼ ounce
Tartaric acid	1½ ounces
Ground ginger	1 ounce
Water	2 quarts
Aniseed flavoring and paregoric	sufficient

Work the ingredients together in the same way as directed in the preceding recipe, adding the cream of tartar to the sugar directly the latter boils. When poured, incorporate all the flavorings, and run the batch through the cough drop rollers. Care should be exercised in the quantity of paregoric used.

Frigotherapy.

According to the *British Medical Journal*, M. Raoul Pictet has extended his application of low temperatures to the treatment of dyspepsia, under the name of "Frigotherapy," and, being a sufferer from indigestion, has ascertained, by experiments upon himself, that exposure to a very low temperature for several minutes relieves indigestion and excites hunger. By repetition of the treatment his stomach affection was entirely cured.—*Pharmaceutical Journal.*

Tablets of Wine.

According to *Industries and Iron*, London, November 10, trials are being made in France with a view to concentrate wine in tablets for transport. The ripe grapes are pressed as in the manufacture of white wine. By means of a pump the juice is transferred into an apparatus where it is evaporated *in vacuo*; the boiling plant is between 30 and 45 degrees C. The vapor is drawn off by a pump and condensed. As soon as the mass has the consistency of a syrup, it is mixed with the pulp. Thus a sort of marmalade is produced containing 80 per cent. of grape sugar. In order to make wine this is dissolved in water to a strength of 8 to 9 degrees, and then flavored.

Photographic Notes

POROUS GLASS FOR WINDOWS.—The latest hygienic craze in Paris is the use of porous glass for windows. This is declared to possess all the advantages of the ordinary window-framing, and, while light is as freely admitted as through the medium of common glass, the "porous" further admits air too, the minute holes with which this is intersected being too fine to permit of any draught, while they provide a healthy continuous ventilation through the apartment.

A NEW DEVELOPER.—The following was communicated to the French Photographic Society:

Water	1000 c.c.
Sulphite	100 grams.

Dissolve in warm water, and add—

Metol	5 grams.
Hydroquinone	7 grams.

After solution—

Carbonate of potash	40 grams.

—*American Photographic Journal.*

HARDENING SOLUTION.—In the London letter of the *Photographic Journal* of India, the following frequently recommended solution for hardening gelatine negatives is given, and strongly endorsed:

Tannin	60 grains
Alum	1 ounce
Water	10 ounces

Immerse the fixed and washed negative in the above solution for fifteen minutes; wash well and dry.

MR. BASSETT recommends the following combination of metol and hydroquinone for those who find metol with sodium bicarbonate too slow:

Metol	¼ ounce
Hydroquinone	¼ ounce
Sodium sulphite	4 ounces
Carbonate of soda	2½ ounces
Water	80 ounces

He showed us fourteen prints from different negatives that were developed with five ounces of this developer, all of which were excellent. He said that it would easily have developed many more, but fourteen was the entire batch.—*Photo-Beacon.*

NEW PHOTOGRAPHIC REDUCER.—A correspondent of the *Amateur Photographer* recommends a new combination for reducing over-exposed prints. A cold saturated solution of sodium hyposulphite (about 20 per cent.) is diluted with four times its volume of water. To 100 c.c. of this is added 1 c.c. of a 10 per cent. solution of uranium nitrate. The prints are immersed in the solution for a few minutes until sufficiently reduced, then washed, and fixed with the following solution. Lead nitrate, 10 parts (? grammes), and sodium hyposulphite, 200 parts, are dissolved in distilled water, 1000, whilst just before using 50 c.c. of a 1 per cent. of gold chloride solution is added, *Nouveaux Remèdes.*

TO CHECK DEVELOPMENT.—Various suggestions have been made as to methods of completely stopping the development of a gelatino-bromide negative plate, and one of the most convenient methods is to use an alcoholic solution of bromide of cadmium, as by this means one at the *same time charges the film with bromide* and eliminates the water. The *Revue Suisse* recommends the following bath:

Bromide of cadmium	1 ounce
Alcohol	18 fluid ounces

After five minutes' immersion in the bath the negative may be exposed even to direct sunlight, and can be preserved any length of time before being fixed.—*American Journal of Photography.*

PROTECTION OF THE HANDS OF THOSE WHO WORK IN WATER.—Apprentices, bottle-washers, etc., whose hands are almost constantly wet, are liable to an eczematous affection, the seat of which is usually around the edges of the nails. It is sometimes so severe that the hands *are practically disabled. It may be* avoided by keeping convenient a mixture of olive oil, lanolin, vaselin, and glycerin, in equal parts, melted together, and about 5 per cent. of campho-phenique, mixed with it while hot. This should be rubbed on the fingers at night when retiring. In the morning wash the hands with good castile soap, dry them, and again apply the mixture. In a very short time the eczema disappears, and it will not reappear as long as the preparation is used.—*National Druggist.*

MENDING CRACKED NEGATIVES.—To make a cracked negative fit for use, Dr. Miethe recommends the following process: Place the broken negative, the film of which must be intact, film side down, upon a metal plate which has been heated so that it can hardly be touched by the hand. The break is then covered with Canada balsam, which readily melts and fills up the cracks. To give the negative more stability, a large piece of the Canada balsam is put upon the centre of the back of the negative, and a clean glass plate, the same size as the negative, is laid over all. The melted balsam spreads out evenly, the excess being squeezed out. After cooling, the plates are still further fastened around the edges with strips of Sheplic gum paper.—*American Journal of Photography.*

TO PROTECT PHOTOGRAPHIC PRINTS.—The most injurious effects upon all photographic prints are caused by moisture, and for that reason the most acceptable carrier of light sensitive substances is collodion. A collodion pellicle hardens very much in course of time, and if, according to a writer in the *Photographic Times*, the picture is afterwards protected by a stratum of varnish, impervious to

moisture, absolute durability of the print is attained. Such a varnish is composed of saturated solution of amber in:

Chloroform	g. 45.0
Coal tar benzole, pure	" 45.0
Damar	" 7.5

The varnish flows as freely as collodion, and covers the film with a hard, glassy substratum. To prevent moisture from acting upon the reverse side of the picture, an appropriate mountant should be resorted to. Ordinary starch, flour, or gelatin paste will not do, but instead of it he recommends a rather thickish solution of shellac in alcohol.

ONE OPERATION TONING AND FIXING SOLUTION.—*Mesol*, according to P. Mercier (*Photo. Times*), is a toning-fixing bath prepared to obtain a toning bath which preserves its activity, and, at the same time, a fixing bath yielding proofs having good keeping qualities. The first object is attained by communicating to the bath the most complete neutrality by the presence of talc, which is a silicate of alumia and of magnesia. As to the second desideratum, this is also attained by the neutrality of this bath, as also by the presence of a good proportion of sodium chloride and of lead acetate. In mesol, the black plumbic compound formed in the light is entirely fixed by the talc, in such a way that the bath always remains clear. Here is a mesol formulæ:

Sodium hyposulphite	150
Sodium chloride	50
Sodium acetate	10
Lead acetate	15
Talc, powdered	15.
Water	10,00

After dissolving, add the talc, and after agitating,

Gold chloride	0.5

When not in use the bath must contain talc in excess.

An Enterprising Japanese Pharmacist.

Mr. Motoyosi Saizau, a Japanese, writes an interesting article in the *Revue des Revues* of Paris on "Journalism in Japan." The founder of Japanese journalism, he says, was a pharmaceutical chemist named Kishida-Chinkau, who issued some twenty-five years ago a periodical sheet to spread the praise of his medicines. It came out twice or three times a month. Politics he was forbidden by law from touching; but in order to make his circular more interesting, he introduced into it society paragraphs and sensational police cases, and even serial stories from national legends. Still, journalism languished in Japan till the introduction of modern printing presses, when it fast became prosperous. Kishida-Chinkau was, however, ruined by competition. The Japanese have now upwards of 400 dailies, costing a half-penny or a penny, and something like 300 reviews or magazines. — *Chemist and Druggist.*

Pharmaceutical Notes.

A DELICATE REACTION FOR MORPHINE.—Lama gives the following reaction as detecting .000005 gramme of morphine: A few drops of the solution are placed in a porcelain capsule, with an equal quantity of uranium acetate solution (.03 gr. uranium acetate and .02 grain sodium acetate in 10 c.c.). A brilliant red color results at once. Oxymorphine gives the reaction as well as morphine.—*Apotheker Zeitung.*

PHOSPHOGLYCERATE OF LIME.—A new process of Messrs. Portes and Prunier enables this now somewhat popular remedy to be obtained at a cheaper rate. Briefly, the operations are as follows: Equal parts of glycerine and phosphoric acid are allowed to stand for six hours at 110° C. The acid is then saturated with carbonate of calcium. After repeated purifications the product is obtained as a white crystalline powder, more soluble in cold than in hot water.—*Bulletin de la Soc. de Pharmacie.*—(*British and Col. Druggist.*)

THE CRYSTALLIZATION OF SYRUPS.—M. Carles, in the current number of the *Repertoire de Pharmacie*, deals with this question in an interesting paper, of which the chief points are the following: Syrups will either keep intact as is the case with syrups of chloral, cherry-laurel, etc., or they ferment as in the case of syrups of ipecac, opium, violets, fruit syrups, etc.; or they will crystallize, and then, as they have, so to speak, lost part of their sugar, are considered easily liable to alteration. This last idea is, however, found to be incorrect. The author's experience is that syrup can easily be supersaturated with sugar, and that when left at rest, and in a cooler place than that in which they were prepared, they deposit the excess of sugar and return to their normal state, and leave properly saturated syrup. In the author's experience this is the sole cause of the phenomenon.—*Repertoire.*

MALTOL.—An inodorous substance, soluble in all proportions in hot water, chloroform, and acetic acid; but slightly soluble in cold water and benzine; freely soluble in alcohol, ether, etc. It melts at 159° C., and has the formula $C_6H_6O_3$. It is a constituent of malt caramel, from which it is obtained by condensation of the empyrheumatic vapors produced in the torrefication of malt (in the preparation of the so-called malt-coffee). A hundred kilograms of malt (200 lbs.) produce between 1.80 and 4.20 gm. of maltol. The latter presents the characteristics of a phenol, being soluble in sodium hydrate, from which solution it is precipitated by carbonic acid. The discovery and separation of maltol removes a very grave source of error in the analysis of beer, it having previously been confounded with salicylic acid in the latter.—*National Druggist.*

SOLUBILITY OF COCAINE HYDROCHLORATE IN VASELIN.—In answer to a dispensing query in *The Chemist and Druggist*, several correspondents recommend to rub up or dissolve the hydrochlorate of cocaine in a minimum quantity of water, and then thoroughly incorporate with the vaselin. Such an ointment is probably more efficacious than a solution of the alkaloid itself in a fatty excipient, but in either case the addition of oleic acid would be undesirable, remarks one correspondent. Another suggests that a better preparation would be made by dissolving the alkaloid itself in oleic acid, and mixing this with the vaselin, though this course would not be justifiable when the hydrochlorate of the alkaloid is prescribed. It may be pointed out, however, that the evident desire of the inquiry was to ascertain how the salt might be incorporated in the ointment in a state of solution. It is slightly soluble in melted vaselin, but only to the extent of about half what is ordered in the prescription. The alkaloid itself is more soluble, but its use would not be justified, and whether the hydrochlorate would be partially dissolved or not would depend to some extent on what was known regarding the prescriber's intentions.—*Chemist and Druggist.*

"STOCK CALOMEL," according to the *Meyer Brothers' Druggist*, is the name applied to a commercial commodity of questionable composition. Its sale seems to be confined principally to Texas, where the article is employed in the treatment of wounds on cattle. The article is evidently the outgrowth of the demand for a large quantity, in return for a little amount of money, without regard to quality. While pure calomel is required for human beings, there is a feeling that almost anything will do for dumb animals. An investigation reveals the fact that under the name of stock calomel the following mixtures are sold at prices in accordance with the composition: (1) Calomel, one part; white lead, three parts. (2) Calomel, one part; white lead, seven parts. (3) Calomel, one part; flaxseed meal, one part. (4) Calomel, three parts; white lead, two parts. (5) Calomel, one part; sugar, one part.

OBTAINING PURE CHLORINE.—Gooch and Kreider state that chlorine evolved by action of hydrochloric or sulphuric acids, diluted with twice their volume of water, upon potassium chlorate, consists of about equal parts of chlorine and chlorine dioxide. With concentrated hydrochloric acid, cooled to 0° C., the yield of chlorine is about 85 per cent. of the mixed gases evolved, and with hot concentrated hydrochloric acid the yield is 75 per cent. pure chlorine, but, when heated, the acid itself is volatilized and reduces this per cent. They recommend for laboratory purposes the use of hydrochloric acid diluted with an equal weight of water and heated to 60° or 70° C., when it reacts upon the chlorate to give

chlorine as pure as is required (80 to 85 per cent. pure). Chlorine, as evolved from the generator, is never pure, but can be purified by passing the dry gas through a tube containing asbestos fibre, heated by a bunsen flame. The heat decomposes the chlorine dioxide, and pure chlorine can thus be collected.—*Chemical News.*

THE GASEOUS PRODUCTS EVOLVED FROM WOOD CHARCOAL WHEN SUBMITTED TO A HIGH TEMPERATURE WITH THE EXCLUSION OF AIR.—The mean composition of the gaseous products of distillation are:

Carbonic acid	9.14
Oxygen	0.26
Carbon monoxide	18.08
Hydrogen	49.11
Marsh-gas	16.04
Nitrogen	7.37
	100.00

Hence the reaction $C + CO_2 = 2CO$ hitherto admitted as the expression of the truth is much more complicated than the above formula indicates. The wood charcoal which has undergone the operation burns without odor or smoke, and is, in some cases, preferable to ordinary charcoal. The antiseptic properties of the gaseous mixture are superior to those of carbon monoxide.—*Chemical News.*

Reactions of Phenacetin.

Bayer (*Journ. de Pharm. d'Anvers*) gives the following tests for phenacetin: (1) When heated with a small proportion of hydrochloric acid and the mixture dissolved in water, the resulting solution becomes of a ruby red color on the addition of chromic acid. (2) Chlorine water or chlorinated lime in solution gives a violet color, passing to ruby-red in the presence of phenacetin. (3) Dissolved in concentrated sulphuric acid it is colored red by the addition of a few drops of nitric acid. This reaction distinguishes it from acetanilid. (4) Heated with a few drops of sulphuric acid and a trace of phenol it produces a purplish red color, and gives off an odor of acetic acid. (5) A solution of 0.01 gram of phenacetin in 10 c.c. of boiling water after cooling is not rendered turbid by the addition of sufficient bromide water to produce a yellow coloration.

Nitropentaerythrite and a Smokeless Explosive.

An application for a patent under the above name has been made. The process of manufacture is as follows: The product known under the name of pentaerythite resulting from the condensation of acetaldehyde and formaldehyde in presence of lime, and having its fusing point between 190° and 260° C., is reduced to a very fine powder, and is then dissolved in nitric acid, and precipitated by concentrated sulphuric acid, or may be brought into a mixture of nitric acid and sulphuric acid.

The crystalline solid thereby produced is separated from the liquid, washed with water, and any acid that is left in contact with it is neutralized by a diluted solution of soda. The substance is then pulverized while in a moist condition.

The substance thus produced may be pressed or brought into a granular form as a smokeless explosive, or it may be mixed with nitro-cellulose.

The claims for a patent are:

(1) The method of production as described.

(2) The production of a smokeless explosive.

(3) An enumeration of various substances with which it may be combined. —*Manufacturing Chemist.*

The Spanish Cork Industry.

An official in the French Forestry Department, who was recently sent out by the French Government to inspect the cork forests of Spain, has just presented his report to the government. He estimates that about 1,550,000 acres of land are planted with cork trees in Spain. The province which is richest in cork trees is Gerona, with 395,000 acres of forest; then follows Huelva, 335,000; Caceres, 200,000; Seville, 181,000; Cadiz, 137,500; Ciudad Real, 70,000; and Cordova, 57,000 acres. The ten provinces of Badajoz, Jaen, Malaga, and Toledo (in the south), and Burgos, Santander, Zamora, Salamanca, Avile, and Saragossa (in the north) have cork plantations; but the trees do not flourish in any of them. Thirty-two provinces contain no cork plantations at all. It is just a hundred years since a cork factory was started in Gerona, since then the manufacture of cork has blossomed into one of the chief industries of Spain. The largest factories are at Gerona, Avenys de Mar (Barcelona), San Celoni, and Tordera. Over one thousand four hundred million corks for bottles, representing a value of seventeen million pesetas (£540,000) are turned out of the factories every year. About 12,000 men are employed in the work. It is difficult to calculate the income which cork brings in, as statistics in Spain are very faulty, and no account is kept of the cork that is used in the country itself. It is estimated, however, that during the past year £1,073,800 was paid for the cork that was exported. The chief markets for raw and manufactured cork are London, Paris, Reims, Epernay, Mainz, Dresden, New York, Calcutta, Melbourne, Sydney, and Yedda.—*Foreign and Colonial Importer.*

SALIFEBRIN OR SALICYLANILID is the latest "coal-tar derivative" marketed by Radlauer. According to the *Pharmaceutische Wochenschrift*, it is a mechanical mixture of salicylic acid and acetanilid, with corresponding properties.

Details That Will Take Care of Themselves.

If there ever was an occupation requiring watchful care, it is that of the pharmacist. There are so many new remedies announced each year that get farther than the manufacturers' advertisements in the trade journals—yes, even so far as the druggists' prescription shelf. One by one these things accumulate, and, as time goes by, it becomes difficult in some cases to get reliable data referring to the dose, properties, solubilities of these once new remedies.

If the druggist will trim a neat blank label and gum it on the back of each bottle, he will find that he will need all of its space in which to write a few things down —details that will take care of themselves. The first thing to note down is the cost price per ounce. Then follows the selling price per grain or drachm. If the pharmacist will continue his statistics further, he should add the dose, usual and maximum, then the effects on the system, in one or two words—and we have plenty in the vocabulary to describe each therapeutic effect, by the way—giving also the incompatibles and solubility, concluding with an advisable vehicle.

It may be a year or two—yes, even longer—when these same facts, gleaned at the time from the books and journals, will be of great service to the one dispensing. Maybe it will be a new clerk, or assistant, or the proprietor, who will be asked by a physician or patient the dose, effect, compatibility or solvent for this identical, yet out-of-the-way remedy. By embodying all this in a few words, and writing it on a small label on the bottle, the answer will always be at hand, and where it is most needed.

It is just these peculiar remedies that your physician may ask you about, and it is your business to furnish the information. He may, doubtless, know the therapeutic value and dose, yet inquire for its solubility and a pleasant method of administration. If every out-of-the-way chemical or preparation is thus labelled, the compounding of a prescription calling for it would be more of a pleasure than a task, and still serve to relieve the druggist's memory of details which will then take care of themselves. —*Frank T. Green, in Pacific Druggist.*

PARAFORM.—According to Aronsohn (*Jour. d. Phar. v. Elsass-Loth.*), when formaldehyde is heated for a sufficient length of time in a watery solution, it passes into a solid, white, crystalline polymer, insoluble in water. This is paraform. It is a very strong intestinal antiseptic. For this purpose it is said to be superior to B-naphthol, iodoform, salol, dermatol, and benzo-naphthol. It has a strong inhibitory action on the propagation of bacilli. One grain of paraform will completely sterilize 200 grams of urine.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to February 10th, 1895.

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
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	45	50
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	2 50	2 75
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	8 00	10 00
BERRIES, Cubeb, sifted, lb	50	55
powdered, lb	55	60
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	65	68
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	$ 35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	25	30
Powdered, lb	30	35
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	14	16
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	59	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	1 25	
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 25	4 50
Powdered, lb	6 00	6 50
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	90	1 00
Powdered, lb	1 10	1 15
Sorts, lb	45	75
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Hoarhound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs, lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs, lb	18	20
Peppermint, ozs., lb	21	25
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz.	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½.	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	22	25
Powdered, lb	25	30
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb.	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	18	25
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ¼ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	2 00	2 10
BORAX, lb	9	10
Powdered, lb	10	11
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 00	1 10
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	5 75	7 00
CODEIA, ½ oz	1 00	1 10
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitrol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Str., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In packages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salicylate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

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.

Messrs. Buntin, Gillies & Co., the wholesale stationers in Hamilton, are advertising prompt and careful attention to mail orders. Their close proximity to the wholesale drug houses of Hamilton should make them a handy source of supply for goods such as they handle. The firm is an old-established one, and has a high reputation for fair dealing and good values.

SEEDS.— Attention is called to the advertisement of The Steele, Briggs, Marcon Co., Ltd., on page 268 of this issue. This firm is one of the largest dealers in field, garden, and flower seeds in the Dominion, and a hasty visit through their premises revealed the extent of the business transacted. The very large stock carried, the great attention paid to even the smallest details connected with the putting up and sale of their goods, and the means taken to ensure the sale of only reliable and first-class seeds, show plainly wherein the success of their business lies. The catalogue issued by this firm for 1895 is one of the handsomest on the continent, and only intensifies the fact that they do nothing by halves.

JAMES W. TUFTS' REPRESENTATIVES.— J. W. Tufts, manufacturer of soda water apparatus, Boston, Mass., has just issued a new catalogue, showing the latest designs in soda water fountains. One hundred and ten thousand copies of the January circular were mailed to the trade. Several changes in the staff of representatives have been made, Mr. W. L. Harkness being no longer with this house. Copies of the new illustrated catalogue and price list will be mailed on application.

PRICES OF TANGLEFOOT FOR 1895.— The O. & W. Thum Co. are pleased to announce that, thanks to the increased output for 1894, they are able to make a reduction in the price of twenty cents per case. The new prices will be :

In lots of less than one case, 50 cents per box.

In lots of one to five cases, $4.75 per case.

In lots of five cases and over, $4.50 per case.

Notwithstanding the reduction in price, the quality of tanglefoot is generally improved. Retailers should anticipate their season's wants and order the largest quantity they can use, thus securing the best possible price. In any quantity, however, Tanglefoot is nearly all profit.

Books and Magazines.

The Bulletin of Pharmacy comes to hand much improved typographically and in general appearance. Under the editorship of Prof. Oldberg, *The Bulletin* loses none of its aforetime excellence, and promises to be one of the "lights" of pharmacy.

We are in receipt to-day of a copy of a special edition of Copp, Clark & Co.'s *Canadian Almanac* for 1895, printed for the enterprising corporation of H. H. Warner & Co. (Ltd.), of London, England, who are now sole proprietors of "Warner's Safe Cure." It is full of valuable information, and reflects credit on the publishers, as well as on the enterprise of the English company.

CONAN DOYLE ON AMERICA.—Conan Doyle's impressions of the literary phases of American life are to be contained in an article to appear in the next issue of *The Ladies' Home Journal*. The article was originally intended to be the novelist's impressions of American women, but this plan was altered, and the article to be printed in *The Journal* will give Dr. Doyle's ideas of "Literary Aspects of America."

We are in receipt of the first number of *The Photogram de Luxe*, a beautiful edition, printed on heavy art paper, with a special supplement, and which is one of the choicest magazines published in connection with photography. The subscription price is 9s. per annum, post free. This work, or *The Photogram*, or *Photogram Folio*, may be had from all newsdealers. Publishers Messrs. Dawbarn & Ward (Ltd.), 6 Farringdon Ave., London, E.C., London.

DR. PARKHURST TO WOMEN.—Dr. Parkhurst starts out as a writer for women in the February *Ladies' Home Journal* in a way which promises to be most interesting. His vigorous style is in his work and his direct way of putting truths leave no room for misinterpreting his ideas about women. For his first article he coins a new word, "Andromaniacs," by which he designates the type of woman who wants to be mannish, and apes the ways of men. That he is not in sympathy with them is evident, and his promise of discussing the women who want to vote, who want to preach, and who desire to be in business, in his future *Journal* articles, gives further evidence of his deep interest in humanity.

LATE LITERARY NEWS.—General Lord Wolseley makes a most important contribution to the literature of the China-Japan war. In an article for the February *Cosmopolitan* he discusses the situation, and does not mince matters in saying what China must do in this emergency. Two other noted foreign authors contribute interesting articles to this number. Rosita Mauri, the famous Parisian danseuse, gives the history of the ballet, and Emile Ollivier tells the story of the fall of Louis Philippe. From every part of the world drawings and photographs have been obtained of the instruments used to torture poor humanity, and appear as illustrations for a clever article by Julian Hawthorne, entitled "Salvation *via* the Rack." Mrs. Reginald de Koven, Anatole France, W. Clark Russell, Albion W Tourgée, and William Dean Howells are among the story-tellers for the February number of *The Cosmopolitan*.

In the February number of *Frank Leslie's Popular Monthly* the momentous conditions and prospects confronting Nicholas II., the young Czar of Russia, "On the Threshold of a Reign," are the subject of a peculiarly well-informed article by Valerien Gribayédoff. This is richly illustrated with pen drawings by the author, and a large number of rare portraits. Closely associated with the great Eastern Question, also, as well as possessing a highly picturesque interest of its own, is M. de Blowitz's account of "A Trip to Bosnia-Herzegovina." Theo Tracy tells the fascinating "Story of the Silkworm," charmingly illustrated with photographs specially taken for the purpose in the famous silk-raising districts of Friuli, in Northern Italy. The breezy log of "A Yachting Cruise in Scotch Waters," with numerous sketches of the same, is contributed by Commodore John McRae, of the Brooklyn Yacht Club.

The Delineator for March is the great spring number, and, in our opinion, is the finest issue of this popular magazine that has yet been published. All the departments are unusually well filled, and the fashions have an increased value through being the first authoritative pronouncement of the spring modes. The chief feature of the literary matter is a most comprehensive chapter on "Cards: Their Uses and Etiquette," by Mrs. Roger A. Pryor, this being the first of a series entitled "The Social Code." There is also a very interesting first article on "The Experiences of Life at a Training School for Nurses," with an introduction, by Mrs. Frederic Rhinelander Jones. "Woman as a Musician" is the subject of a "Conversation" between Edith M. Thomas and Dr. S. R. Elliott, to which is appended a delightful bit of verse by Miss Thomas. Mrs. Carrie M. Dearborn, ex-principal of the Boston Cooking School, writes of "The Teaching of Cookery as an Employment for Women," and Josephine Adams Rathbone of "A Girl's Life and Work at the University of Michigan." Mrs. Longstreet has an instructive paper on "The Care of the Hands and Feet." Mrs. Maude C. Murray contributes another chapter to her interesting series on "The Relations of Mother and Son," and Mrs. Witherspoon continues her entertaining gossip in "Around the Tea Table." Pleasurable and profitable employment is found in "Burnt Work," H. K. Forbes; "Venetian Iron Work," J. Harry Adams; and "Crepe and Tissue Papers," Tillie Roome Littell. The housewife will find much of value in the care of silver, cookery for the month, and hints on serving lemons, and the fancy worker will appreciate the new designs in Knitting, Netting, Tatting, etc.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	2 00	2 10
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	20	22
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	55	60
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	22	25
Bromide, lb	55	60
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPYLAMINE, oz	35	40
QUININE, Sulph, bulk	30	32
Ozs., oz	35	38
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	1 00	1 10
SULFONAL, oz	34	35
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thyme acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz.	25	30

ESSENTIAL OILS.

OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	3 00	3 25
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	2 00	2 10
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50

FIXED OILS.

CASTOR, lb	9	11
COD LIVER, N.F., gal	1 15	1 25
Norwegian, gal	1 50	1 60
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
NEATSFOOT, gal	1 00	1 10
OLIVE, gal	1 30	1 35
Salad, gal	2 25	2 40
PALM, lb	12	13
SPERM, gal	1 75	1 80
TURPENTINE, gal	60	65

Drug Reports.

Canada.

As is usual at this season of the year all heavy goods stiffen in price, and will be firm until summer freight rates come into force. Business keeps fairly active, and is, if anything, ahead of last year. The signs of the times indicate we are on the eve of better times.

Norway cod liver oil has advanced in price in Europe almost double, and will likely be much higher. It is worth to-day $2 per gallon, and, as the prices are based on the catch made from January to March, it will be no lower for a year. The catch of fish is small, and the livers of those caught contain little oil.

Cocaine is 10 per cent. higher, and the outlook indicates a further advance.

Gum tragacanths are all 25 per cent. higher. Gum acacias may sympathize with them.

Salicylic acid and salicylate soda easier in price.

Sulphonal is 25 per cent. higher, very little in stock in this market at present. It is reported, in the future, sulfonal and phenacetine can only be had in ounces.

Bromides are all higher, principally ammon bromide, soda bromide, etc.

Aloes, all kinds, are dearer on account of small production.

Antitoxine, a new antipyretic, is worth $1.50 per ounce, in one ounce boxes.

Laviolette's Syrup of Turpentine has been reduced to $1.60 per dozen, or $18 per gross.

England.

London, Jan. 26th, 1895.

The drug and chemical markets have been very dull, and transactions for the most part have been of a jobbing character. A concerted attempt has been made to abolish the old London terms, which included a draft or trell of one or two pounds extra allowed by the seller to the buyer on each cwt.

Sulphonal has advanced, owing to the amalgamation of the two principal manufacturers. Salicine is also dearer, the reason being a short crop of the willow bark. Gum Kino is gradually reaching famine price, as no more appears coming forward. The export season is responsible for the rise in value of copper sulphate.

Quinine and opium are quiet, and there are no alterations to note. Camphor is lower, and ergot easier. Jalap, senega, and ipecacuanha, steady, with a firmer tendency. Cascarilla bark realized extreme prices at the auctions this week, but other drugs were, for the most part, unaltered in value.

ANTITETRAIZIN is the name given in Italy to an alleged quinine derivative, and recommended by Zambeletti, of Milan, as an effective analgesic in rheumatism and kindred ailments. The dose is 0.75 to 1.5 per day.

KOLA

PARKE, DAVIS & CO.

. . . OVER 10 YEARS AGO . . .

INTRODUCED

. . . TO THE . . .

MEDICAL PROFESSION

A PALATABLE PREPARATION

Specially Valuable in all Depressed Conditions of the Muscular and Nervous Systems.

SYNONYMS	Guru (also Goora, Gourou), Kokkoroku, Makasso, Ombéné, Nangoué. *Tropical Africa;* Bichy, W. *Ind.;* Noix de Kola, Noix de Gourou, Noix du Soudan, Café du Soudan, *Fr.;* Kolanuss, *Ger.;* Cola de Africa, Cola de Sudan, Nuez de Kola, *Span.;* *Sterculia acuminata*, Pal. de Beauvois.
PART EMPLOYED	The seeds.
NATURAL ORDER	Sterculiaceæ.
HABITAT	Western tropical Africa.
PROPERTIES	Kola resembles in its action guarana and coca, and is said to have almost a specific effect in combating the intoxicating influence of alcohol. It is employed also in diarrhœas, and in all depressed conditions of the nervous system where caffeine is indicated. Dr. Bernard Schuchardt, of Gotha, author of a most exhaustive work on Kola, thus concludes with regard to its medicinal properties: "Kola should accordingly be employed as a diuretic in heart disease, and especially in conditions of feeble heart; in neuralgias; in severe fevers of adynamic character and during the period of convalescence after the latter; in exhausting diseases; in dyspepsias; chronic and obstinate diarrhœas; in cholera; and finally, as an excitant and exhilarant in cases of mental depression."
PREPARATIONS	Fluid Extract Kola; Solid Extract Kola; Normal Liquid Kola; Kola Cordial (120 grains Kola to fluidounce); Kola Wine; Elixir Kola Compound (40 grains Kola, 40 grains Coca, 40 grains Celery, to fluidounce); Compressed Tablets Kola (5 and 10 grains).

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DETROIT, · NEW YORK, · KANSAS CITY, · U. S. A.

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