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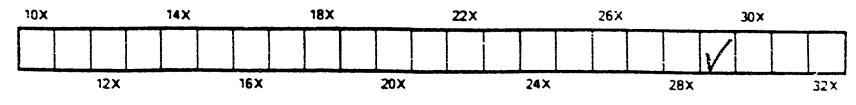
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CANADIAN DRUGGIST.

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

Yor., 6,

STRATHROY, MARCH, 1894.

No. 3.

CANADIAN DRUGGIST.

WILLIAM J. DYAS, - Editor and 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. All cheques or drafts to be made payable to the editor. New adsertisements or changes to be addressed

CANADIAN DRUGGIST,

STRATHROY, ONTARIO.

ENGLISH OFFICE.

16 Trulock Road, Tottenham,

LONDON, N.

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Illegality of Counter Prescribing.

The recent decision given by Judge Rose in the Common Pleas Division of the Divisional Court, Toronto, in refusing to quash a summary conviction by the Police Magistrate, in the case of Mr. S. Howarth, and further, in his judgment, interpreting the law in the case, is of especial interest to druggists as showing where the line of conduct must be drawn in order to be safe.

The alleged offence in this case was indicating a medicine for symptoms described by a customer and selling a bottle of it at the regular price. The defence, instead of being a denial of the charge, was an attempted vindication of the practice by by contending that this was not practising within the meaning of the Act, and, even if it was, it was not for gain, and even if it was for gain, the defendant was entitled, as an apothecary, so to practise.

The Court held that there was evidence of practising medicine on which a magis trate might well convict; that it was practising for hire or hope of reward, and that the defendant's registration under the Pharmacy Act did not qualify him to practise in the same way that one registered under the Medical Act as a physician and surgeon could practise. The judge held that a druggist can properly tell a customer the name of a remedy for a disease, or even tell him which of sev eral remedies he deems the best, but cannot legally enquire into the customer's symptoms to ascertain the nature of his adment and then indicate the remedy.

From this reporting of the case, the de fendant's counsel has apparently rested his defence largely on his client's right to practise as as an apothecary. Whether, under our Act, druggists are

such, is a matter upon which no special legal interpretation has yet been given, although the judge has apparently had such in mind when he declared that registration under the Pharmacy Act did not grant qualification to practise in the same way that those registered under the Medical Act were entitled to practise.

In referring to the Chemists and Apothecaries' Act, as published by the Chemist and Druggist some years ago, considerable light is thrown on the privileges of each by English interpretation of similar cases.

Referring to this Act, the Chemist and Druggist says, "The Apothecaries' Act, 1815, is the only statute which protects

any part of medical practice. The Medi cal Act, 1858, and its subsequent legislative supplements, stringently prohibit the assumption of any titles or descriptions untruly implying qualification or registra tion, but do not interfere with the prac tice of medicine or surgery by unqualified persons who make no misleading preten sions of fitness. But it remains illegal to 'act as an apothecary,' and a number of cases against chemists and others have been prosecuted by the Apothecaries' Company. The definition of an apothe cary's functions, which the courts have ever since acted upon, was laid down by Mr. Justice Cresswill in the case of the Apothecaries' Company v. Lotinga, 2 M. and R., 495 (tried in 1813), that 'an apothecary is a person who professes to judge of internal disease by its symptoms, and applies himself to cure that disease by medicine. . . . But a chemist is one who sells medicines which are asked for."

In February, 1876, the Apothecaries' Company sued a London chemist and druggist, in the Court of Exchequer, for a penalty of £20 for practising as an apothecary without a certificate. The 28th section of the Act was pleaded, and the defendant said that all serious cases were attended by his partner, a duly qualified practitioner, that he never visited, but, that in minor cases, he had inquired the nature of the illness, and had given the most suitable medicine without consulting his partner. Baron Bramwell told the jury that the Act was strict in its terms, and they were bound by it. If a man asked a chemist for something to cure a bad headache, and the chemist gave him a draught, he would be infringing the terms of the Act; but it would be unreasonable in such a case for the Apothecaries' Company to interfere. It was for the jury to say if the defendant had infringed the Act. The jury found for the plaintiffs, and the judge refused leave to move. The Apothecaries' Company subsequently prosecuted a chemist and druggist at Nottingham, and the defence was taken up in this and other cases by the Chemists' Trade Association. The fine was inflicted in the Nottingham County Court, and an appeal (Sir Henry James arguing for the appellants) the Court of Exchequer (Sir Fitzroy Kelly and Mr. Baron Chasby) ordered the case to be retired in that Court. The case was therefore heard before Mr. Baron Pollock on November 7, 1877. It was proved that a witness employed to get up the case had visited the

defendant's shop, had complained of a soro throat, and tightness at the chest and sleeplessness. The defendant looked at his throat, gave him some medicine, and charged 1s. for it. For the defence, sec-tion 28 of the Apothecaries' Act was chiefly relied on. A number of aged chomists were called to prove that to their knowledge such practices as that alleged by the prosecution were customary on the part of chemists and druggists before 1815. The judge, however, in summing up, said the business of a chemist and druggist was defined in the 28th section, and if chemists went beyond their rights before 1815, that did not justify them in doing so afterwards. He left it for the jury to say whether in the particular case before them the defendant had gone bo-yond the limits allowed him. The jury found for the defendant; but in this ver-dict they were no doubt influenced by the unsatisfactory evidence submitted for the plaintiffs. Other judges, in other cases, interpreted the law similarly. At the Birmingham County Court a prosecution of a chemist and druggist by the Apothe-caries' Company was held over for two years pending the settlement of the last quoted case. The chemist had given certain medicine to a young woman suffering from weakness, and had charged her a shilling for it. Ho admitted having asked her certain questions, though there was some dispute respecting the whole of the alleged consultation. He was fined £20.

If the above interpretation of the distinction between an apothecary and a pharmaceutical chemist can be brought to bear upon our Act there is but little hope that any relief can be afforded those who overstep the line laid down in Justice Rose's decision; as but few druggists, if any, registered purely as pharmaceutical chemists, are likely to claim that they are apothecaries in the sense of professing to judge of internal disease by symptoms.

It is quite unnecessary for us to advise caution, as we are satisfied that all who review these cases will act in accordance with the letter of the law, even though the spirit of it may be somewhat strained by so doing.

Manitoba Pharmaceutical Association.

The annual meeting of the Manitoba Pharmaceutical Association was held in Winnipeg, Feb. 21st.

Among those present were J. F. Howard, president, in the chair; E. Casselman, Emerson; G. W. McLaren, Morden; B. M. Canniff, Portage; N. H. Jackson, C. Flexon, Dr. Hutton, J. K. Hill, W. Campbell, Howard Mitchell, W. Pulford, E. S. Lightcap, Geo. Saddler, H. H. Casselman, H. E. Bletcher, and J. K. Strachan, registrar. The report of the council, dealing with the work of the association for the past year, the treasurer's and registrar's reports were read and adopted. The total membership of the association is 79, clerks 14, apprentices 28. Four members have been removed from the register in consequence of removal from the province or other causes. The secretary was empowered to incur the necessary expense to procure evidence against persons violating the association's act. E. E. Lightcap and H. H. Casselman, having been appointed scrutineers, the ballot papers sent in were counted and resulted in the following being elected as council for the ensuing two years, viz.; J. C. Gor-don, J. F. Howard, E. D. Martin, C. Flexon, W. R. Bartlett, B. M. Canniff and G. W. McLaren. During the counting of the ballots the president addressed the meeting, reviewing the work of the association, and congratulated the membors on its satisfactory condition.

Dr. Hutton moved, seconded by Mr. Canniff, "That the Pharmaceutical Association of Manitoba offer for yearly competition, for general proficiency in the major examinations, a gold and silver medal, the gold medal to be given to the student obtaining the greatest number of marks, the percentage to be not less than ninety; the silver medal to be given to the student obtaining the next highest num-ber of marks, provided such student takes not less than eighty per cent. of the total marks, the competition to date from the spring examinations of 1895, and to be open to students who have taken their full course in Manitoba. In case of a tie, the examining board to take into consideration the respective merits of the tying candidates, with reference to the neatness of the papers put in and the work done."

In moving this resolution, Dr. Hutton, in an interesting speech, pointed out the strong incentive to good work, the chance of winning the Association medals would be, and stated that he would be willing to offer a silver medal for the student obtaining the highest number of marks in materia medica, and Mr. Canniff, in supporting and seconding the resolution, also said he would be willing to offer a medal for the highest number of marks in any particular subject, probably chemistry. Mr. McLaren and others, having spoken in favor of the motion, it was put and carried.

The question of the association obtaining permanent suitable rooms, for the purpose of a laboratory, lecture : examination rooms, was discussed, and on motion of Mr. Canniff, seconded by Mr. McLaren, the matter was referred to a committee, consisting of the president, Mr. Flexon and Dr. Hutton, to wait on the medical college authorities and ascertain on what terms a room could be procured in the medical college building.

CARDOL VASELINE.—Vaseline is first rendered aseptic by prolonged heating to 120°C., and then mixed with carbolic acid. The mixture is poured whilst hot into metal tubes, which are hermetically sealed whilst at an elevated temperature. It is put forward as a good antiseptic salve.—Apotheker Zeitung.

Pharmaceutical Association of the Province of Quebec.

Notice to Students.

The Semi-Annual Examination for Major and Minor Candidates will commence on Tuesday, April 17th, at 9.00 a. m., and will be held in the College of Pharmacy, 595 Lagauchetiere Street, Montreal. Candidates must file their application, duly certified, with the Registrar, on-or before the 7th of April. Printed Regulations and Form of Application must be obtained from the Registrar, and be duly signed by the Applicant.

Candidates who have failed more than once in their Examinations will be required to pay the full Examination Fee,

The Council having instructed the Registrar to enforce the rule requiring from candidates for examination, ten days notice, prior to the date fixed for the examinations, no application will be accepted after the 7th day of April.

E. Muin,

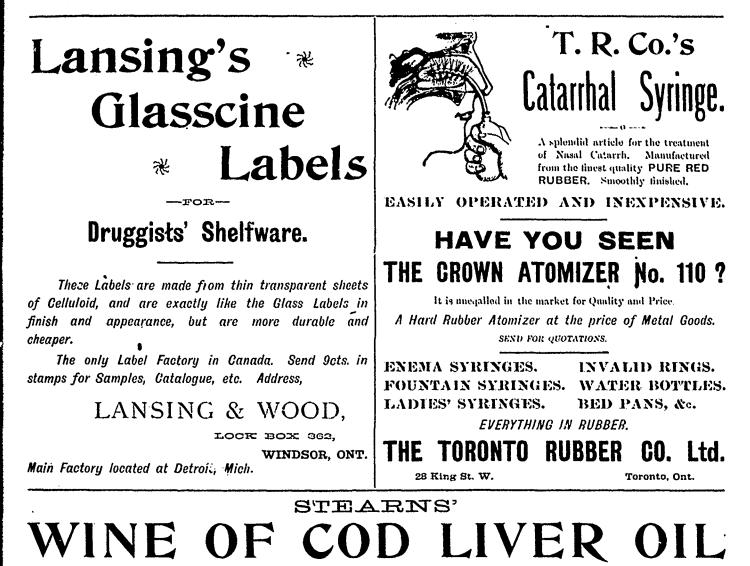
Secty.-Registrar. 595 Lagaucheticro Street.

Montreal, March 8th, 1894.

New Salts of Berberine.

It is well known that commercial crystallized sulphate of berberine dissolves with difficulty in cold water and alcohol, in fact is almost insoluble in both these liquids. Merck, by increasing the quantity of sulphuric acid used in its preparation, has introduced a sulphate which is easily soluble in cold water and in alcohol. It is now on the market as "soluble cry-stalline sulphate of berberine." It can be taken in half-grain doses six times daily. According to Schmidt (See Arch. der Pharm., 1890), free berberine rapidly absorbs carbonic acid, and as met with in commerce usually contains much carbonate. Merck attempted to introduce a method for the preparation of the free alkaloid, which shall give a preparation as free as possible from CO_2 . He has concluded that the best method is by procipitation of the sulphate of berberine with barium hydrate in just sufficient quantity to precipitate the whole of the sulphuric acid, and afterwards evaporating the filtered solution, without the employment of heat, in glass vessels. But even prepared in this way, CO3 is absorbed. Hence Merck suggests that free berberine should be superseded by the carbonate, which is easily crystallized from water or alcohol, and is of quite definite composition. If the pure alkaloid is required, it is easy to prepare it from this salt by heating it to 100° C. in a current of hydrogen.-Journal de Pharm, d'Anvers.

An English formula for a rubber substitute is 10 parts of parafiin, 1 part bitumen, 2 parts India-rubber, and this in spite of the fact that rubber manufacturers the world over are straid paraffin.





WITH PEPTONATE OF IRON

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

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

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

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

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

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

This Wine sustains the functional activity of the organs of digestion and assimilation, and is therefore recommended for phthisical patients who cannot digest and assimilate nourishment. Its power of increasing metabolism (tissue change) makes it especially useful in such cases, for it has been proven by clinical experiments that patients taking it have gained rapidly in weight and increased appetite

Stearns' Wine has a delicious taste, and is acceptable to the stomach of the most delicate invalid. It is rich, ruby red in color, and free from all odor and taste of the plain Oil.

Stearns' Wine may be used in all cases where Cod Liver Oil and Iron are indicated, and furthermore it is devoid of all the objectionable features hitherto attending the administration of Cod Liver Oil in any form.

Samples, Literature and Treatise on Wine of Cod Liver Oil sent free on request. Price, \$8.00 per doz. For sale by all the leading Jobbing Houses, or direct from



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LONDON, ONTARIO.

Bismuth Subgallate Tablets, 5 grains.

Trade Notes.

The drug business of Dr. J. H. Weldon, St. John, N.B., is closed.

John K. Sutherland has opened a new drug store in Vancouver, B. C.

The drug store of J. W. Levers, Kalso, B. C., has been destroyed by fire.

The drug store of Dr. Ovens, Parkhill, was destroyed by fire on March 12th.

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

A. E. Munson, of Carberry, Man., has .old his drug business to Mr. Newton, of Treharne.

DeBlois & Primrose, druggists, Bridgetown, N.S., are advortising their business for sale.

W. McSween has purchased the drug business, formerly conducted by F. W. James, in Learnington, Ont.

B. Batchelor, Brantford, Ont., has sold his branch store in the North Ward to Pearson & Co., formerly in Weston.

J. H. Sanderson, of Richmond Hill, Ont., who sells his goods from the waggon, has travelled about 9300 miles a year during the last eight years.

Geo. S. Hobart, druggist, Kingston, Ont., died Feb. 19th. Deceased was sixty years of age and had been in the drug business thirty-five years.

C. H. Davis, druggist, of Fredricton, N. B., has fled the country. He is accused of forging the names of his two brothers-in law for large amounts of money.

J. F. Jaeck, member of one of the eldest drug firms in Victoria, B. C., has purchased the good will and business of John Reed, corner of Cordova and Albert sts.

Jas. R. Chambers, who for many years and until a short time ago was connected with the drug firm of C. D. Daniel & Co., King St. East, Toronto, Ont., died in New York after a short illness.

. Joseph Dilworth, who, in addition to carrying on a drug business in King St. west, Toronto, has been conducting a sort of Patron supply store at 57 Colborne street, has assigned to J. B. Boustead.

The Victoria, B. C., Chemical Co., which began operations about a year ago have found their particular field so profitable that they have changed into a limited liability concern, having a capital of \$10,000.00 with a view of extending their operations in other directions. Messrs. F. Moore, J. A. Hall and J. W. Fisher, who have hitherto carried on the works, enter the new company, and operations of manufacture will be, as heretofore, superintended by Messrs. Hall and Moore, both graduates of the famous Ower College, Manchester, and who have been connected with large chemical works in England. The works of this company constitute a very complete plant for the manufacture of sulphuric, nitric and muriatic acids, sulphate of copper and heavy chemicals.

Montreal Notes.

Dr. Wilfred Lecours has acquired the drug business of Dr. Prevost, corner of Craig and Bonsecours streets, opposite Viger Garden. Mr. Lecours served his apprenticeship with Dr. St. Jacques, of St. Hyacinthe, and was afterwards two years with Mr. H. R. Gray, of Montreal, and has recently been managing the Laporte pharmacy, where his engagement has not quite expired.

The action against Dr. Leonard, drug gist, of St. Cuncgonie, a suburb of Montreal, came up before Judge Desnoyers in the police court on the 30th ultimo. Several old established pharmacists gave evidence in the case, and it was clearly shown that Dr. Leonard had not been in fault and the Judge dismissed the case.

An action for damages brought by Dr. Douglas Decow against Mr. I. T. Lyons, chemist, Craig street. for having given an opinion as to the Doctor's professional standing, (which was not flattering to the Doctor), after having been before the court some time, wasfinally decided against the plaintiff. Mr. Lyons is much praised for having had the pluck to stand by his opinions and fight the case.

A singular case of accidental poisoning or rather of death being accelerated by taking Tartar Emetic in place of Bismuth, has resulted in a rather singular verdict on the part of the Coroner's jury. It is stated that the papers reported the inquest anything but fully, and consequently a wrong impression as to the whole case has got abroad. It would be better if coroner's inquests could be reported verbatim or not at all.

It has been suggested that at the next annual meeting of the American Pharmaceutical Association this important body should be invited to hold its Convention of 1895 in Montreal. It would be as well if the Montreal pharmacists would think the matter over, especially those who are members of the Association. The question of expense would of course be important, and would have to be met by subscription.

There has been some talk in the press about the establishment of a large co operative store in Montreal, but it is probable the scheme will not materialize, the reminiscence of the last failure is still green in the memory of Montrealers who were tempted to invest. The conditions are very different here for the success of co operative stores to what they are in England, notably high wages, high rentals, and heavy taxes, both municipal and provincial. The drawbacks of importing, the length of time between ordering and receiving goods, the impossibility of importing certain goods during the winter months, and no end of other difficulties from which co operative stores in England are free. Any one behind the scenes knows full well what grocers' profits are in Montreal, and unless the co-operative people go into selling bogus liquors and cheap wines, they will, without the slightest doubt, share the fate of their predecessor.

Mc. S. Lachance's new pharmacy on St. Catherino St., east, is much admired, and Mr. Lachance deserves praise for his good taste. In Mr. Lachance's able hands the investment cannot but prove remunerative.

The dispensing business in Montreal is becoming more difficult every day owing to the multiplicity of now pharmaceutical preparations being continually introduced by manufacturing pharmacists, and the ease with which physicians are induced to order them. Strange to say, physicians of the highest standing are the slowest at adopting these fads. It is refreshing to occasionally receive the simple prescriptions written by leading London physicians. A little more attention ought assuredly to be given in our medical colleges to the "art of prescribing."

Manitoba Notes.

Geo. Fraser has taken charge of Jos. Taylor's branch store in Portage la Prairie.

H. E. Newton, formerly of Treherne, Man., has purchased the business of A. E. Munson, druggist, of Carberry.

The Pharmaceutical Examinations for the Province of Manitoba will take place on the 2nd, 3rd and 4th of April. There will be six students writing for the major and ten for the minor. The minor class has been somewhat reduced owing to the death of Andrew McDonald and the absence of Jno. Wait, who was called away by the illness of his parents.

A. McDonald, whose death is noted above was working for E. Knowlton, druggist, Main street, Winnipeg, up to the time of the commencement of the fall course of lectures, which he attended until near Christmas, when he was taken ill with pleurisy. He died on Sunday the 25th of February.

The following gentlemen were elected on the Council of Pharmacentical Assocition for the current year: Messrs. J. F. Howard, E. D. Martin, J. C. Gordon and C. Flexon, Winnipeg; G. W. McLaren, Morden and B. M. Canniff, Portage Ia' Prairie.

John Rogers, of Evans, Sons & Co., Montreal, is now doing Winnipeg, on his way back from the coast. Mr. Wright, of Lyman, Sons & Co., is also in the country.

Peter Ross, late of Banff, is now on the road for Bole, Wynn & Co.

Drug trade, in common with every other line, was slow during the month of February, but March is opening up better.

D. W. Bole, of Bole, Wynn & Co., has been elected president of the Jobbers' Union, Winnipeg.

E. D. Martin recently returned from an extended castern trip.

New Brunswick Notes. ~

Fredericton, N. B., is at the present moment minus one of its retail druggists, Geo. H. Davis. When last seen he was walking down the railroad | track on Sunday afternoon during a heavy rain storm. He leaves behind him is few angry brokers, the wreck of a small retail business, and liabilities to the amount of \$21,500. About \$14,000 of this is repudiated paper upon which it is reported Mr. Davis did not raise more than \$1,000. In many cases he paid a shave of 65 per cent. and even higher rates. Much of this paper is forged and is now repudiated by the men whose signatures have been imitated. The brokers who charged such rates as 65 [per cent. are not entitled to much sympathy. Mr. Davis was not a drink-ing man, but addicted to gambling, it is thought in stocks, which has led up to the above deplorable result.

In order that the drug clerks in St. John, N. B., may be better equipped for passing the registration examination of the Board of Pharmacy, two courses of lectures have been instituted on Elementary Chemistry and Materia Medica. The course will consist of twelve lectures on each subject. A. E MacIntyre takes Chemistry and W. H. Mowatt, Materia Medica. Chemistry on Monday evening and Materia Medica, Thursday afternoon. The tickets for the courses have been placed at a very dow figure, '\$2.50 per course. It is intended next winter that these lectures shall be succeeded by a more advanced course on each subject.

In the examination held $by_{\delta}^{*}N.B.$ Board of Pharmacy, Jan. 30. There were ten candidates for the preliminary examination, all of whom passed. Four for the final, of whom two passed, Messrs. Wm. Wilson, St. John West, and Geo. O. Spencer, Moncton. Examiners present were Messrs, R. E. Coupe, Dr. L. C. Allison, C. Walter Clark, W. H. Mowatt and M. V. Paddock.

"The Welcome of the Flowers" is the title of an article in the March number of Harper's Magazine on the cross fertilization of flowers by W. Humilton Gibson. The subject is dealt with in a clear and graphic style and the high order of the illustrations both from a scientific and artistic standpoint render the article an extremely interesting one to the botanist. The subject, the co-operation of flowers and insects, is traced from its inception by Sprengel in 1787, diagrams being given of the floral problem which the earlier theorists were unable to master, down to the complete explanation of this by Darwin seventy years later in his "Origin of Species." The fertilization of many familiar wild 'species is illustrated and explained. One remarkable and perhaps not widely known fact relative to this subject is that of the first crop of American red clover raised in Australia. The crop was splendid in every respect, except that the flowers never came to maturity ; there was no seed. The Amer-

ican bumble bee had been left out in the transaction, and it was not until this gentleman and his family were naturalized that the crop seeded in the usual way. This seems to have been a true instance of the flower wasting its fragrance on the desert air, although the aphorism, in its general sense, seems now to be a false one. If the iconoclastic hand of the modern historian is proving many beautiful old legends, which we have hitherto taken as facts, to be myths only, the biologist and his co-worker, the botanist, on the other hand, are constructing from the living page of nature a history more wonderful in its many facts than the historic legends of old which are now dying out under the remorseless hand of scientific investigation.

British Columbia Notes.

The next meeting of the council of the B. C. Pharmaceutical Association will be held in Victoria, March 8th. The principal feature of importance coming up will be the amendments to the Pharmacy Act now before the Provincial House.

The semi-annual examinations for Licentiate of Pharmacy will be held on Wednesday and Thursday, April 4th and 5th. Ail applications must reach the registrar at least two weeks previous, accompanied by the fee (\$20.) All application s for registration on diploma, should be in at least 30 days before the Examining Board meets. Charles Nelson, registrar.

The business known as Reed's Pharmacy, Vancouver, was sold on Feb. 20th by the mortgagers (Langley & Co., of Victoria) to J. F. Jaeck, also of Victoria, who is continuing the business under the name of "The Owl Drug Store.

It is also rumored that McDowell & Co. have sold their Westminster Avenue Branch, Vancouver, to their late manager, J. K. Sutherland.

T. M. Henderson, of Lingley & Co., Victoria, has been taking in the Mid-Winter Fair at San Francisco, trying to recuperate his vitality, lost through a severe attack of grip.

J. Proctor, Nanaimo, has also been under the same complaint.

C. R. King, of Victoria, B. C. agent for the well known Evans & Sons, has lately lost his son, Clarence, who died, after a lingering illness, of consumption.

Lewis Hall, of Victoria, who was recently prosecuted by the Pharmaceutical Association for filling prescriptions without being registered as a licentiate, returned from Oregon with a diplomafrom a college of that state and has consequently been registered by the B. C. Association.

The Coast pharmacists have been pleased with visits from Dr. Sibree Clark, the pioneer druggist of Kamloops, B. C. The doctor was on the Coast in connection with the Oddfellows' Grand Lodge meeting and his high and honorable position of Grand Master of Masonry.

The drug trade generally is suffering during the depression, as all other businesses are, the shadowy fortunes floating away with the wind.

Williams, druggist of Kaslo, is one of the losers in the recent fire in that eity. Loss, \$2,000.

SCIEN.

Notes From England.

(From our own Correspondent)

London, March 1st.

The Pharmaceutical Society has entered upon a crusade against the grocers ever since their success in the Chlorodyne case. The point which they have now raised will have to be settled by the Court of Appeal, viz. : what quantity of poison is necessary to bring a preparation within the meaning of the Act. In the latest case, that of selling Powell's Balsam of Aniseed, the Society seek to make it penal for any but qualified chemists selling it, although on their own showing the quantity of morphine is but one tenth of a grain in a fluid ounce. There is, howover, considerable difficulty in the matter as it is obvious that there are many drugs which would be considerably more dangerous, if 8 times the legitimate dose were taken, than with this particular preparation. On the other hand the principal for which the Society is contending is a most important one, that the quantity of poison is immaterial to the case provided it is in sufficient quantity to injure anybody under any circumstances. As the counsel for the defence pointed out, such a definition would require brandy and port wine to be scheduled as poisons, as in moderate quantities they would be prejudicial and possibly fatal to infants.

A striking point in these recent prosecutions has been the repeated evidence of the variation in the composition of some of these proprietary articles. According to Dr. Paul the proportion of active ingredient is sometimes 25 per cent. more in one sample than in another-a very serious increase that alone might lead to fatal results. It has been suggested to me that in the case of opium preparations this is due to the occasional inferiority of the opium employed and which the manufacturers are not capable of assaying. It is evident, therefore, if this explanation be accepted that the amount of morphine might vary considerably.

Professor Attfield's paper upon the Imperial British Pharmacoposia will be read by Canadian pharmacists with peculiar pleasure. According to Dr. Attfield he was in no way alarmed at the recent production of the U. S. B., but the suggested Canadian Pharmacoposia gave him much more concern. If my information is correct, the whole of the so-called Canadian demand for a pharmacoposia of their own, was manufactured by a drug journal of

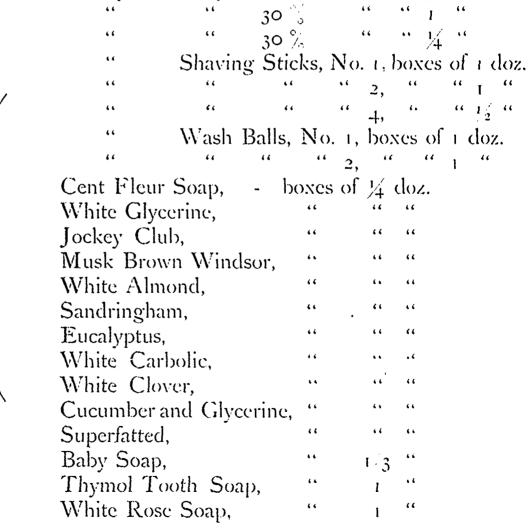


These Soaps see sold only to the Drug Trade, and therefore pay retail Druggists a good profit, a large number of Canadian Druggists have now been handling them for years with satisfaction to themselves and customers.

Whitaker & Grossmith's 🔎







Transparent Soap, unscented, boxes of 3 doz.

All of above can be confidently recommended to consumers.

Archdale Wilson & Co. SOLE AGENTS FOR CANADA.



This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anœmia, Chlorosis, Bronchitis and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosole.

| General Depot :-PARIS, | 21, Faubourg Montmarte, 21 | CHEVRIER

Sold by all first-class Chemists and Druggists,

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

ADAMS' ROOT BEER.

Pays Well, Sells Well, and Gives Satisfaction.

Retail, 10 and 25 cts. ; Wholesale, 90c. and \$1.75 per doz., \$10.00 and \$20.00 per gross.

Place it on your list and order from your next wholesale representative.

The Canada Specialty Company,

DOMINION AGENTS.

TORONTO, ONTARIO.

Free Advertising for Druggists.

Dr. Slocum's Compound Pennyroyal Tea.

Put up in neat and attractive 25 cent Boxes, sells at sight, and is now being extensively advertised.

PUT IN A STOCK AT ONCE.

Sold by all leading Wholesale Houses at \$2.00 per dozen, less 5%, or direct upon receipt of price.

T. A. SLOCUM & CO.,

Manufacturers,

TORONTO, CANADA.

Montreal. To most people it would certainly appear that Canadians are already afflicted with a plethora of pharmacopeias, to which a Canadian edition would only add another without replacing one of those already in use. Professor Attfield is now awaiting suggestions for his new pharmacopeia. All suggestions should, as far as possible, be accompanied with formulae already made out, in the manner of the D. P., so that they are practically ready for insertion if approved by the General Medical Council.

Angier's Petroleum Emulsion is the latest pharmaceutical production for medical favors. It is stated to be an emulsion of 33 per cent. of a purified petroleum oil and a definite proportion of the

hypophosphites of lime, soda and potash. At first sight it would hardly appear to be an degant compound likely to tempt the flecting appetite of phthisical patients. But from examination and perusal of medical reports it is quite evident that the petroleum is a bland unirritating vascline-like oil which has marked value in phthisis and pulmonar affec tions. & In relation to consumption it may be interesting to mention that the use of lacnanthes tinctoria is strongly recommended by a leading specialist, who has recently obtained the unenviable notoriety of being struck off the medical register in consequence of advertising.

Some time ago a method was published of coating pills with salol so as to ensure their passing through the stomach without disintegration, whilst they would be dissolved in the duodenum. This has been found at a large dispensing establishment a very great improvement on the old Keratin method which was very tedious and messy. The salol is warmed and when just melted the pills are turned into the liquid salol and lifted out onto a slab to dry. When quite cold they

have a frosted appearance which is rather attractive than otherwise and no unsightly pin-pole. The salol coating does not easily rub off, if the pills were previously free from powder. Pills of aloin, taurocholate of soda, iridin and iron compounds have been in most demand.

The subject of the preservation of infusions is constantly tackled by pharmacists having more or less knowledge of the subject. The latest contributions are remarkable as being precisely antagonistic in their inferences. In London, Mr. E. White has suggested boiling the infusions where admissible and preserving in sterilized bottles free from the ubiquitous microbe. Where sterilization by heat is objectionable he recommends the addition of a small quantity of chloroform as a

preservative. By these means he is enabled to keep infusions for about a month without their turning sour or mouldy. He finally respeats the stock arguments against concentrated infusions which have been refuted over and over again. At Birmingham, Mr. Allcock publishes the result of the examination of samples of mfusions made by a dozen students in his pharmaceutical college. The variation in strength of these is truly remarkable. The amount of solid extract contained in some is double that present in others, which points to the inevitable conclusion that practical pharmacists have reached years ago, namely that concentrated infusions are more uniform and reliable than freshly prepared specimens. What is r



JOSEPH CONTANT.

quired, however, is pharmacopicial permission for their use by inserting the proper forms. Whether this be granted or not, medical men who dispense and pharmacists, will continue to use these convenient forms of concentrated galenicals. As their therapeutical properties are small and the trouble of preparation great, whilst they are bound to vary and prone to change, it is unreasonable to abuse the concentrated article and unwise to ignore them.

Iodocaffeine is obtained by dissolving in the cold a mixture of 35 parts of sodium iodide and 65 parts of caffeine iodide, in sufficient water, treating this solution with hydrogen sulphide and evaporating to dryness.

Prominent Canadian Pharmacists.

JOSEPH CONTANT,

The subject of the first of our sketches of Canadians prominent in pharmaceutical matters was born in Montreal in '48, pursued a classical course at the Jesuits' College in that city until 1865, when he began his career in the drug business by being entered as an apprentice with Piccult & Son. Mr. Contant has, perhaps, been an exception to the majority of drug clerks inasmuch that, from the first day of his apprenticeship until the present time, he has continued in the same store. He attended the feetures on pharmacy at McGill College first and afterwards at the Montreal College

of Pharmacy, from which he graduated. Upon the death of Dr. Picault, in 1885, he purchased the business and has carried it on ever since under the firm more of Picault & Contant. Mr. Contant has for many years been a prominent figure in pharmacentical circles and held the office of Pics dent of the Pharmacentical Association of Quebec from June, 1888, to June, 1891, and was again elected to the same office in June, 1893. His store is situated at 1475 Notre Dune St., Montreal,

S. LACHANCE

Was born in Quebec the 19th April, 1817, and received a part of his classical education in the Seminary of Quebee and entered in M. R. Dugal's Pharmacy as an apprentice, July 26th, 1863. In August, 1868, he opened a drug store in Fraserville, Quebec, but after five years of unsuccessful efforts, gave up business and went to Detroit, Mich, where he remained one year as clerk in a German drug store. In 1874 nostalgia forced him to come back to his mother country and he went to Montreal where a situation as clerk was secured

at M. J. Goulden's drug store, St. Catherine-st. In November, 1876, he again started for himself in partnership with his old patron M. R. Dugal, of Quebec, under the commercial name of Dugal & Lachance. On the 15th Feb., 1879, after a mutual consent of dissolution of partnership he decided to open alone at 1538 St. Catherine-st., where he remained nearly fifteen years, and where a decided success was the reward of perseverance.

Mr. Lachance has been president of the Pharmaceutical Association of the Province of Quebec, and for several years member of the board, also member of the board of the Montreal College of Pharmacy for many years and one of the examiners for the last six years. He is also a member of the American Pharmaceutical Association and has always taken a deep interest in pharmaceutical progress, principally in the study of pharmacy.

For some time Mr. Lachance had been looking about him for more convenient

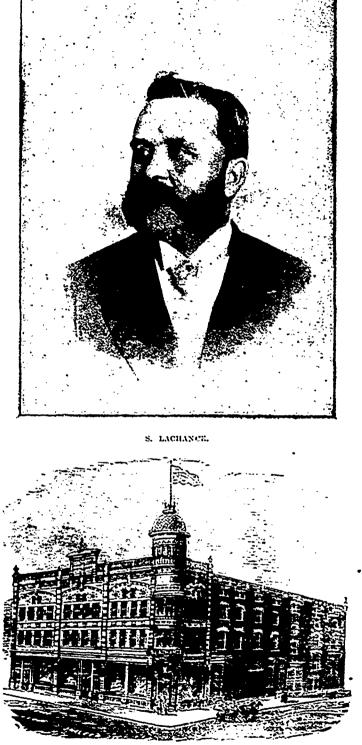
and larger premises on account of the extension of his business, and last summer a new store was secured on the corner of St. Catharine and St. (Christophe streets, which outrivals, we believe, anything of its kind in Montreal, This store, a cut of which is given on this page, occupies the ground floor of a handsome three story brick and stone building occupying an area of 25 feet by 61 feet in dimensions, the whole build-ing being used by Mr. Lachance in his business. The store is oblong in shape, has handsome counters, adorned with rich plate glass show cases, running up each side, and being joined at the end by a semi-circular screen, surmounted by a coronet of 26 pendant incandescent lights, endorsed in acorn shaped globes of beautiful watered glass. The whole of the interior of the store itself, with the exception of the floor which is of rich Italian marble is cabinetted in stained cotton wood, the ceiling being very artistically relieved in panels and bosses in various shades. From the ceiling hang three very handsome crystal chandeliers each supporting numerous electric lights, whilst thirty pendant incandescent lights in acorn globes, give a brilliant appearance to the store. The walls are lined with handsome fittings in ash and walnut, whilst elegant glass show cases, filled with a choice selection of druggist's sundries, occupy the centre of the establishment. The windows, three in number, are of immense sheets of polished plate glass, and are illumined by forty-eight incandescent lights, set in bevelled and radiated plate glass mirrors. Here Mr. Lachance and five qualified assistants are kept constantly engaged in attending to the wants of his numerous customers. The first floor is occupied by Mr. Lachance as a Pharmaceutical Laboratory and stock ware-

house, the upper flat being fitted as a laboratory, where Mr. Lachance prepares his proprietary medicines, with the assistance of ten employees.

Pilocarpine is recommended for deafness.

Diastatic Action.

Papers on this subject have recently appeared in England, so that it will be of interest to give a brief account of a somewhat important note on the subject which



recently appeared in the *Comptes Rendus*. It is well-known that certain substances hinder the action of diastase, but very few investigations have been undertaken with the object of ascertaining which substances favor this action. It is known also that weak doses of mineral acids and of chloride of sodium possess some influence, but the action is not dependable, and appears to be due to antiseptic power rather than to direct interference. From the researches of M.

Effront, it appears that alu-minium salts, phosphates and asparagine favor the action of the ferment. Whatever the temperature of conversion be, this influence is always noticeable. But the action stops as soon as the degree of hydration has become very great. It appears, therefore, that the same substances which favor the development of organised ferments also favor the action of soluble ferments. Whatever the na-ture of this action is, it is possible that the mechanism is the same in Loth cases. Mineral salts, and, perhaps, certain nitrogenous substances can enter into combination in some special way with carbohydrates and aibumen, so that the unstable compounds formed, easily undergo hydration, oxidation or further decomposition. The role which certain inorganic salts play inorganic synthesis, as discovered by Friedel and Kraft, may, perhaps, be similar to that in these peculiar ferment actions. -Chemist and Druggist.

GLASS BRICKS. - Experi-ments with glass building bricks were begun in 1891 by M. Falconier, an architect of Lyons. These bricks are hollow, being blown like bottles. and are given forms-such as cubes, hexagons, etc.,-that permit of ready laying. A bituminous cement, with a basis of asphalt, is used with them. The bricks serve as double windows, giving protection against both cold and heat; they are good insulators of humidity and noise; and they lend themselves readily to the decoration of buildings either by their form or their color. Many applications are foreseen. The bricks are neater than marble in meat markets, and are espe-cially adapted for bath halls, hot-houses, hospitals, refrigerating establishments, and buildings in which absence of windows would be an advantage.

A hot-house of glass bricks is of about ordinary cost, saves fuel, and resists hail.

In the calcium spectrum some new lines have been discovered in the region of the ultraviolent rays.

JOHNSON'S Belladonna Plaster.

JOHNSON & JOHNSON-New York.

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

Order of your wholesale house and specify

JOHNSON & JOHNSON.

Prices and all information on application to

THOS. LEEMING & CO., 25 St. Pcter St., MONTREAL.



"Impart a Delightful Odour to the Breath."

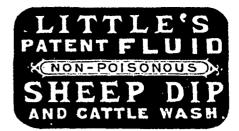
Put up in the Pretty, Novel, and Convenient Pocket Bottle.

IT WILL PAY YOU TO STOCK THIS ATTRACTIVE ARTICLE.



ANY WHOLESALE HOUSE.

J. PASCALL, LONDON, S. E.



FOR THE DESTRUCTION OF TICKS, LICE, MANCE, AND ALL INSECTS UPON SHEEP, HORSES, CATTLE, PICS, DOCS, ETC.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, &c.

Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Littles Sheep Dip and Cattle Wash' is used at the Dominion Experimental Farms, at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion and proncunced to be the cheapest and most effective remedy on the market.

43 17 Gold, Silver and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **\$1.00.** Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WICHTMAN, DRUGGIST, OWEN SOUND, ONT.

Sole Agent for the Dominion. To be had from all Wholesale Druggists in Toronto, Hamilton & London.



CHEAP, HARMLESS AND EFFECTIVE.

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Dirinfectant, being successfully active at 2 per cent, whilst that which ranked second required 7 per cent, and many Disinfectants at 50 per cent, proved worthless,

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will acatralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Respirate and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c, and 50c, Bottles, and \$1.00 Tins.

A 25c. bottle will make four gals, strongest Disinfectant, 7 Is wanted by every Physician, Householder and Public Institution in the Dominion.

ROBERT WICHTMAN, DRUCCIST, OWEN SOUND, ONT. Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton and London, Ont., and Winnipeg, Man.

March, 1894

DRUGGISTS' CONFECTIONERY. **ROBERT GIBSON & SONS,** Medicated Lozenge Manufacturers,

CARLTON WORKS,

ERSKINE STREET, HULME, MANCHESTER,

1, GLASSHOUSE YARD, ALDERSGATE ST., LONDON, ENGLAND.

SUPERIOR BOILED SUGARS

Have gained a High Reputation everywhere

FOR EXPORT TRADE.

They are put up in 1-lb., 2-lb., and 5-lb. Bottles. Packed in Casks or in 1 doz. Cases as required, and delivered F. O. B. at any Port in England. These Sweets are absolutely pure.

SARSAPARILLA AND SULPHUR TABLETS.

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

HIGH-CLASS LOZENGES

OF EVERY DESCRIPTION. CHLORODYNE COUGH LOZENGES.

CHLORODYNE JUJUBES,

PEPPERMINT LOZENGES.

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

DIGESTIVE TABLETS.

VOICE AND THROAT LOZENGES FOR SINGERS AND PUBLIC SPEAKERS.

ORIGINAL SUGAR WORM CAKES

Have an immense sale, both at home and abroad ; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

THROAT HOSPITAL LOZENGES

(As per T. H. Pharmacopœia)

All Lozenges are sent out in 2-lb. and 4-lb. Bottles (bottles free) but allowed for if returned.

Proprietary Lozenges Carefully Prepared, Stamped and Cut to any Size or Shape.

PRICE LISTS SENT ON APPLICATION.

Provincial Pharmaceutical Assoclation of Ontario.

The regular semi-annual meeting of the Provincial Pharmaceutical Association was held, pursuant to notice, in the lecture 100m of the Ontario College of Phurmacy, Gerrard st., Toronto, on the afternoon of Thursday, Feb. Sth. President William Murchison occupied the chair, the other members present including Messrs. G. A. McCann, Secretary, Toronto; L. W. Yeomans, Belleville; Henry Watters, Ottawa; John McKce, Peterboro; J. A. Clark, Hamilton; D. H. Maclaren, Barrie; W. Scott, Port Hope; A. B. Petrie, Guelph, President of the Ontario College of Pharmacy Council ; H. Sherris, F. W. McLean ; W. J. Davidson, W. H. Gilpin, R. W. Campbell, J. H. Mackenzie, Vice-President of the O. C. P. Council, W. A. Hargreaves, A. R. Fraser, F. W. Flett, George Little, J. E. McGarvin, -- Peaker, R. Robinson, A. E. Walton, all of Toronto, and others.

Upon calling the meeting to order, the President instructed the Secretary to read the minutes of the last regular meeting which were, upon motion, approved and signed, after which the President delivered his address which appeared in full in our last issue.

The conclusion of the President's remarks was the signal for a hearty round of applause which was renewed when Mr. Yeomans rose to propose a cordial vote of thanks to Mr. Murchison for his excellent address. Speaking to his motion Mr. Yeomans said he was particularly interested with what had fallen from the Pres dent in reference to the treatment of apprentices. It was always a question for employers to consider, how to arrange so that their apprentices should have time for study, and he had found it a good plan to leave them free for this purpose after supper. An hour or two could be got in this way every day. The practical work of the store would occupy them through the day, though the regretted for the sake of the young men now in training, that the manufacturing business was largely passing out of their hands.

The question of cutting prices, which had also been dealt with by the President, was an ever-present sore which it was very hard to heal, and without doubt the practice was doing great harm to the trade. It was contended in many quarters that the business was gradually slip. ping away from the druggists, and that it was absolutely necessary to cut to retain the custom at all. He, the speaker, thought they must depend mostly upon retaining the confidence of the public by honorable, upright dealing, and by supplying none but the best goods at the price. They should also endeavor to foster a kindly relationship among themselves, so that they might buy in conjunction with one another and in that way be able to purchase in large quantities and secure the full advantage of trade discounts.

Another evil which was becoming more

threatening every year was the practice of dispensing by physicians. This was cutting into their business seriously and should receive their careful consideration.

Mr. A. B. Petrie seconded the vote of thanks, remarking that the address just delivered by their President was as complete and careful a resume of the position of allairs to day as it would be possible to offer.

The motion was carried unanimously amid applause.

After Mr. Murchison had acknowledg ed the vote of thanks, the discussion upon the several matters touched upon in his address was continued for a short time.

Mr. McGregor stated that one course the druggists of Brantford had adopted in self-protection was to unanimously decide to sell nothing but "O. C." goods upon which there was no cut, and which no outside stores could purchase. The plan had worked admirably, and the public were beginning to appreciate the high grade of their goods, and call for them to the exclusion of inferior articles. Referring to the apprentice question, Mr. Mc-Gregor said it was most essential that the moral character of the assistants should be carefully looked after, and, if in cases of transgression and the caution of the employer were not heeded, it was better for both that they should part.

The election of officers came next. The constitution required that the retiring Executive should nominate their successors, and the meeting either adopt or amend the nomination. As, however, only one member of the old Executive was present, besides the President and Secretary, the President nominated Mes srs. Yeomans, Sherris and the Secretary to bring in a report. This they subsequently did as follows :-President, L.W. Yeomans, Bellevil e, Vice - President, Henry Watters, Ottawa ; 2nd Vice Pres ident, J. W. Gerrie, Hamilton, 3rd Vice-President, N. A. Bosworth, Stratford; Secretary, G. A. McCann, Toronto, Treasurer, H. Sherris, Toronto. Execu-tive Committee-No. 1 electoral district, Angus Buchanan, Kemptville; No 2, G. S. Hobart, Kingston; No. 3, W. Howse, Whitby; No. 4, W. J. Davidson, Toronto; No. 5, G. J. Little, Toronto, No. G. Doctor Slaven, Orillia; No. 7, T. P. Smith. Elora; No. 8, Jas. Har-rison, Hamilton, No. 9, Chas. Mc George, Ayr; No. 10, Chas. Austin, Simcoe; No. 11, C. McCallum, London, No. 12, J. Peppe , Brussels , No. 13, R. D. Scott, Sarnia.

The report was adopted without amendment.

Mr. Yeomans was at once called to the chair by the retiring president and appropriately a knowledged the honor conferred upon him.

The Convention adjourned after the

reading of the following practical and very useful paper, entitled,

HINTS ON THE PREPARATION OF BLANDRS,

BY HENRY WATTERS, OTTAWA, ONT.

Mr. President and Fellow druggists

When our zealous President, and equally zealous Secretary, appealed to me for something towards the programme of our annual meeting I did not feel that I could undertake the task they wished to imposo on me, and 1 can assure you that 1 should not have allowed my name to appear on the programme had I not been told that there was great lack of material to present to the meeting. I did my best to convince the gentlemen referred to, that I had nothing worth laying before the meeting, but, in an unguarded moment, I intimated that 1 thought I could furnish some hints on the preparation of elixirs which might be of interest to my fellowdruggists. So I was committed to the position in which I now find myself. ٦t might seem almost necessary to apologizo for taking up your time with and asking your attention to a subject which suggests undisguised execration from a large number of my confreres, but when I tell you that it is not my intention to add a single formula to the almost endless number of elixirs and that I purpose to refer to very few formulas, I hope 1 shall have annihilated) any antipathy which the title of my remarks to you may have aroused. I may say 1 haven't a word to say in favor of the clixirs as a class; 1 share quite heartily with you the opinion that they are open to properly directed criti cism, and that when they are given a proprietary character, as is sometimes dene, their use is a reflection on the ability of the practising pharmacist to compound and dispense the simple 10 medies of the materia medica. Some of them are doubtless as potent preparations of the drugs they represent as could be devised, and possess the advantage, or should do so, of being less repulsive to sensitive patients than the undisguised medicines contained in them. Whatever objections may be raised against them, the fact remains that they are frequently prescribed by physicians, so that if we would be prepared to fulfil one of the important functions of our calling we cannot afford to despise or neglect this large class of medicinal preparations.

Now, the first hint I have to offer is to make your own clixirs. In this connection, let me say a word in reference to the manufacture of pharmaceutical preparations of every kind. I believe it is the custom in some sections to buy and dispense ready made tinctures, syraps, ointments, etc., a custom which every phar macist who is jealous of the standing and reputation of his profession should deplore and by all means discourage. It matters not if these preparations be of uniform, standard excellence which, I fear, is not always the case-the custom tends to lower what should be a professional call ing to the level of a mercantile trade. A much stronger reason that can be urged against the handling of ready-made preparations is the injustice to our apprentices attendant on such a procedure. Our apprentices come to us expecting to be trained and litted for the responsible duties of the drug business. Now, I would ask, how can they become qualified to undertake these responsibilities if their practi cal acquaintance with the products of pharmacy be limited to handling them as articles of trade? They can, of course, compare the physical properties of the various preparations with the standard formulated by the official pharmacopicia and apply the tests therein indicated to determine the nature and strength of the chemical bodies present on which the the therapeutic properties depend, but, how much less thorough will be the knowledge thereby gained than if the student had been engaged in every step of the transformation of the crude drug into the finished pharmaceutic product. True, they possess the advantage of as thorough a course of practical instruction as could be given them in the limited time devoted to such work in our College, but I think I am not making an extravagant statement when I say that the experience there obtained cannot compare in real usefulmess with the experience acquired in the careful and methodic manufacture of the preparations demanded by the daily requirements of a drug business. I am dwelling at greater length on this subsidiary matter than the purport of my subject might seem to warrant, but I believe my motive will commend itself to your approval, and if I succeed in inducing any of my business confreres to give practical consideration to my counsel in this regard, I think you will agree with me that this digression will have been amply justified. As has been intimated, my object is merely to give you some hints on the preparation of elixirs. Some of the hints T have to offer have been derived from a somewhat extensive practical experience in the manipulation of the class of bodies we are considering. The greater part, however, of my knowledge of elixirs naturally has been obtained from a perusal of the published articles relating to them which have appeared in journals of pharmacy and from the compilations of formulas intended for the use of the practising pharmacist. It is therefore proper that I should mention the works that have been of assistance to me in my search for and experimentation with satisfactory formulas. Among such books I would name The National Formulary, Nelson's Handbook, Lloyd's Manual on Elixirs, and especially Oldberg's Unofficial Pharmacopaia. They are all of them helful to the busy druggist, and should have a place in every pharmaceutical laboratory. I have particularly emphasized the value of Prof. Oldberg's Unofficial Pharmacoposia which has been my constant guide in the preparation, not only of elixirs, but of many other preparations. 1 would carnestly advise you, to furnish yourselves with a copy of it, if it is not now in your possession. The starting-point, or basis,

of all elixirs is, of course, the vehicle we employ to carry, in a palatable form, the medicines prescribed by the physician. On it depends, in great measure, the quality of the finished preparation. The object to be attained is a flavoring agent which will most perfectly disguise the taste of disagreeable drugs, and, at the same time, be itself devoid of objectionable character, in other words, a flavoring body that will be acceptable to the greatest number of individuals. For this purpose cinnamon, coriander, anise, orange, and other aromatics have been recommended, either in simple or compound form. Of these I most unhesitatingly advise the use of orange in the form of simple elixir, which I use in preference to all other formulas as the basis of elixirs. Nearly everything I have to say will be in connection with the preparation of simple clixir, which, indeed, might have been the title of my subject. The formula I have to present to you for simple elixir is found in Oldberg's Unofficial Pharmacopoeia, modified in regard to the system of weights and measures therein employed to suit the quantity 1 prepare each time. In this connection I should say that the formulas given by Prof. Oldberg are all in metric system, Lut ample tables are given by the author for conversion into the ordinary standard. I would, however, recommend you to employ the metric system on account of the helpful experience it will afford your apprentices in familiarizing them with that system. For this purpose a set of weights ranging from 1 centigramme to 100 grammes, and conical measures of 30, 100 and 1000 cubic centimetres, and a cylindrical jar graduated to 500 cubic centimetres will be found sufficient for all your requirements. Following is the formula for simple elixir, according to the imerial standard as already intimated :

Spirit of onange 4	ounces
Deodorized alcohol	ounces
Simple syrup40	ounces
Water	ounces

Mix in the order named, add 4 ounces of pow-dered French chalk or purified Talcom; shake occasionally and filter till clear.

The spirit of orange is prepared by dissolving one ounce of fresh oil of sweet orange peel in nine ounces of deodorized alcohol. As there is some difficulty in getting fresh oil of orange in Canada, T would advise you to buy it in New York. My custom is to buy one pound of the finest oil obtainable and dissolve it at once in the proportion of alcohol already stated. I may say in passing that spirit of orange, as thus prepared, makes an excellent flavoring extract of orange, which is sometimes inquired for. Deodorized alcohol may be prepared as follows:

Alcohol 1	gal. (wine measure)
Powdered quick-lin	ie
Powdered alum	. 2 drs.
Sweet spirit of nitre	eldr.

Mix the lime and alum, add the alcohol ; shake well and add the spirit of nitre. Set aside for seven days. Filter through animal asido for seven days, charcoal (bone-black).

To avoid the nondescript color appear-

ance that complex tinctures usually exhibit, it is customary, in making elixirs, to use caramel for one class and cochineal or earmine for others. In reference to caramel nothing need be said as there is no difficulty in obtaining that article of good quality. I have tried several formulas for cochineal coloring and find none more satisfactory than one I have used for a great many years, and sold as jellycoloring, for which purpose it is really excellent. Following is the formula :

Cochineal

Cochineal Potassium carbonate Potassium bitartrate Alum		l ounce
------------------------------------------------------------------	--	---------

Boil till effervescence ceases ; filter and add water to make 16 fluid ounces in which dissolve 16 ounces of sugar.

Pharmacy of Cod-Liver Oil.

L. C. FINK.

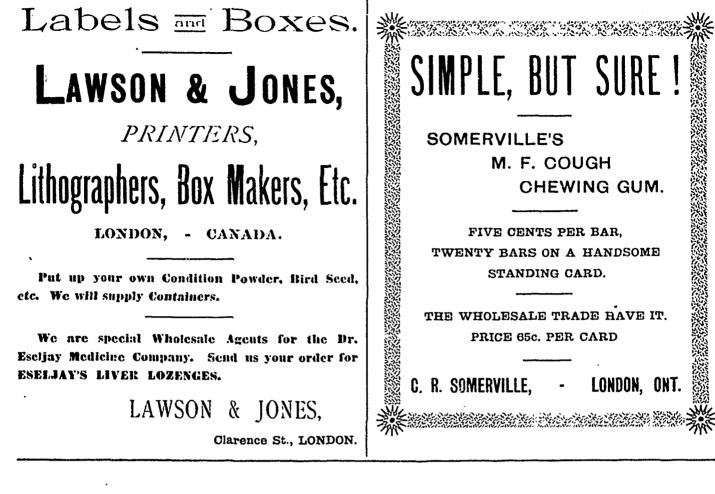
In the good old days when cod-liver oil was taken without any thought of possible palatability, the product generally offered in the market was repulsive stuff, possessing a pronounced odor of sole-leather and a rank fishy taste. To render the oil more palatable and, incidentally, more readily assimilable, emulsification was resorted to, and the oil is now almost invariably exhibited in the form of an emulsion, although physicians are aware that the intervening emulsifying agent is a burden to the weakened digestive organs of an invalid.

Now that the novelty has worn off, we are prepared to question whether or not the sub-division of the oil by emulsification really facilitates absorption, inasmuch as it seems most probable that the sugar and emulsifying medium will be separated in the stomach, and the oil accumulate in large globules before reaching the duodenum, where by aid of the pancreatic ferments it is prepared for absorption.

From this it would appear that palatability is the chief advantage possessed by emulsions, and now that LOFOTEN COD-LIVER OIL (P. D. & Co.) has been rendered so palatable there seems to be little occasion to administer mixtures containing acacia, which is itself a calcium salt and has no place among foods.

Last, but not least, is the question of permanency. It is a well known fact that cod liver oil grows rancid more rapid. ly in contact with sweetened water, which constitutes the base of nearly all emulsions, than when preserved pure in closed vessels. LOFOTEN COD-LIVER OIL is prepared with a special view to permanency. -Therapeutic Notes.

Whooping Cough has been treated by Dr. J. Taub (Post. Med. Chir. Pr.) by resorting to intubation. He allows the tube to remain for some three to five hours and the paroxysms of cough do not appear until several hours after its removal. The tube is to be applied every other day.



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N. A. JOHNSON,

President.

EASTON, PA., U.S.A.



Practical Pharmacy.

AN INCOMPATIBILITY. — M. Sarebbe calls attention in the *Bull. Chem. Pharm.* to the following incompatible prescription:

Solution dialyzed iron 25 gm. Fowler's solution 4 gm.

A dense precipitate was presently observed on the walls of the bottle, due probably to the hydrated ferric oxide produced by the action of the alkali in Fowler's Solution.

_

MIXTURE OF PARALDENYDE.—W. II. Cutting recommends the following mixture, which keeps well :

Take of

Paraldehyde		· •		1 dr.
Acacia Water	· · · · ·	· • • • • • •	••••	. 15 grs. .30 min.

Dissolve the acacia in the water and mix with the paraldehyde.

_

CINNAMOL.—This name was given to the Rectified Oil of Cinnamon by a French physician, Championiere, according to Rundschau. He recommends its use in the form of a salve for antiseptic treatment and gives the following formula :

-	•	
Retinol (resinol)		parts.
Wax, sterilized		parts.
B-Naphthol		part.
Cinnamol	1	part.

For small operations Championiere also recommends the following mixture :

Retinol (resinol)	75 parts.
Wax, sterilized	25 parts.
Cinnamol	0.4 parts.
Oil origanum, pure	.0.4 parts.
Oil Geranium	.0.4 parts.
Oil verbena (East India, Gras	8
Oil	0.2 parts.

— Meyers Bros.' Drugyist. *_*

MENTHOL MINTURES.—Owing to the fact that very little water will cause menthol to separate from its alcoholic solution, this medicament is best administered in the form of an emulsion. II. Coupland, *Chem. and Drug.*, recommends the following three formulas:

I-Menthol			S grains.	
Powdered acacia		2	4 grains.	
Distilled water q.	8		1 il. oz.	

Powder the menthol finely, mix it inti mately with the acacia, and add the water gradually.

2-Menthol	8 grains.
Yolk of egg	3 fl. oz.
Chloroform water	§ fl. oz.
Distilled water q. s	1 fl. oz.
3-Menthol	
Tincture senega	4 fl. dr.
Distilled water q. s	ī fl. oz.

Dilute the senega tincture with twice its volume of the water, and triturate with the powdered menthol, then gradually add the remainder of the water.

Of the above three emulsions, that made with acacia is believed, on the whole, to be the best. It is thinner than the others, and when the mixture has separated into layers, on standing, it is more easily rendered homogeneous by shaking.

. •

The senega mixture is considered the next best.

_

A NEW PLASTER MASS.—Pharm. Centralhalle contains an article from Journal American Medical Association, in which Shoemaker recommends the above highly. Its composition is as follows:

 Caoutehoue
 50 parts.

 Honey
 5 parts.

 Soup plaster.
 45 parts.

This mass is used also as the base in the following plasters in which the active ingredient is expressed as per cent.

Anthrarobin plaster25 per cent. Alum plaster20 per cent. Ergot plaster10 per cent. Bismuth subiodule plaster30 per cent. Sulphur plaster30 per cent. Chamomile plaster30 per cent. Belladonna plaster20 per cent. Phytolacca plaster20 per cent.

* * *

SOLID EXTRACTS which are habitually ordered in connection with ointments are best kept on hand in the form of glycerites. They are fitly prepared by bringing together equal weights of extract, glycerin and water, and after effecting thorough mergence, evaporating the water by heating the mixture on a water bath until its weight equals that of the extract and glycerine combined. They are also especially useful in the formation of pills. As the strength is reduced one-half, double the quantity prescribed must be used.— [Beginnings in Pharmacy.

Rational Formulæ for Pills of Oleate of Mercury, and for Fowler's Solution.

MM. Quinquand and Portes contribute the following to la Medicine Scientifique :

PILLS OF OLEATE OF MERCURY.

Dissolve in a sufficient quantity of water, 30 gm. of medicinal soap and then precipitate by the addition of salt water ; decant and repeat the operation several times. Cast on a bit of oil cloth and wash very lightly with distilled water, and finally dissolve the soupy residue in a large quantity of water. In another vessel dissolve 13 gm. 50 cgm. of bichloride of mercury in sufficient distilled water and mix the two solutions with constant agitation. At the end of several hours collect the precipitated oleate of mercury, wash by malaxation and preserve in parchment paper, kept carefully from the light. The pills are made with this oleate and licorice, and should be immediately Each pill coated with melted salol. should contain 15 cgm. of the oleate, representing about 4 cgm. of metallic mercury.

Pills thus prepared are free from all the defects and bad effects of the oleate other wise prepared, as they do not disturb the gastric functions, and are absorbed in the intestine. They are especially valuable in the treatment of syphilis and syphilitic affections.

FOWLER'S SOLUTION.

An unalterable solution of arseniate of

potassium may be made by following the process of Traub, viz.: Dissolve by the aid of heat, 1 gm. of arsenious acid in 5 cem. of caustic potash. Dilute by adding 30 gm. of water, 40 gm of alcohol and 10 gm. spirit of melissa. Finally add suffic ient alcohol to make 100 gm. The doso is from 10 to 15 drops in the course of twenty-four hours.--Nat. Druggist.

Drug Clerk Association.

To the Editor :

Kindly allow me space to bring before my fellow drug clerks something which they know already, but seem afraid to speak out about.

I am a firm believer in the old saying, that "unity is strength," for we have seen proof of it in every line of labor, therefore, I agitate for an association, which is sorely needed by all drug clerks, and especially here in Canada, where the standard is so very high, and the profession supposed to be one of the best (which it really might me, if we would only make it so), and the clerks supposed to be well paid.

But, fellow d ug clerks, what constitutes a good profession, one that pays \$3or \$1 per week for a man of 19 or 20 years of age? Not in my estimation. Why, we do not get any more remuneration for our services than a grocery or butcher boy, who requires to pass no examination in order to enter his business.

People have the impression that drug clerks are well paid, which is a very wrong one, but then the people only see us when we are dressed up in a suit of clothes, which it took us months to save the money to buy, and people always judge from appearances.

Men are leaving the business every day who have become proficient but cannot make one-half the wages that other branches of business offer.

One word about the standard. They (the Council and druggists) have been, and are raising it very high, and the druggists are consequently getting better value in their clerks, and it is nothing but right that they should pay for it accordingly. Let them keep out the crowd by raising the standard for admission, not by letting them into the profession and then driving them from it on account of small wages after they have become qualified. It will belittle our profession. Arise, drug clerks, let us join hands and assert our rights.

Forever your humble servant,

F. H. JACOBS.

(556 Parliament St.,

) – Toronto, Ont

Escorem, derived from the asculatin of horse chestnut, has been found useful by Frohlich (Med. Chir. Rundsch.) for diagnosing lesions of the cornea, the latter being stained pink in places where thore is interruption of continuity of the epithelial covering.

Canadian Druggist

FEBRUARY 15m, 1594. An Imperial British Pharmacopœia.

Elsewhere in this issue we present in full an address delivered by Prof. Attfield, F. R. S., at a meeting of the Pharmaceutical Society of Great Britain, held Feb. 14th, and for a copy of which we are in-debted to the author. Since the fusion of the three Pharmacopaias, the London, Edinburgh and Dublin, no event of as equal importance, it may be safely said, has presented itself to the consideration of pharmacists as the proposition now made to compile a work which, while thoroughly British in its character as embracing all that formerly appeared in the individual works before mentioned, and being authoritative in its bearing on all matters of pharmacy wherever the Queen's dominions extend, still by its comprehensiveness would assume an Imperial aspect.

In 1886 Prof. Attfield suggested to the Medical Council the desirability of considering whether such changes in the Pharmacopæia should be made to better adapt it to colonial requirements and as an outcome of this suggestion, correspondence was entered into through the Privy Council, with the Colonial Office and India Office with this end in view. In the January issue of the CANADIAN DRUGGIST we published the committee's report, as adopted by the Medical Council. In this report Prof. Attfield was named as reporter and editor and no more fitting choice, nor one more acceptable pharmacists the world over, could have been made. Entering upon the work assigned to him with a clear perception of what is required in a text-book of this character and with a thorough understanding of the difficulties which may arise as to the actual fulfilment of this long cherished idea, and one that if carried out in the manner indicated by the author, must prove of incalculable benefit especially to colonial pharmacists ; the address is one which must commend itself to every one interested in the compilation of such a work. We hope in a future issue to deal with some of the leading suggestions made in this paper.

Drug Clerks' Associations.

A correspondent suggests the formation of associations by drug clerks for purposes of mutual protection and other objects. The formation of such associations would no doubt be of benefit, not only in the manner indicated by the writer, but also in other ways which, in our opinion, would be infinitely more desirable.

• One of the first objects of such an organization should be self-improvement. Many of the young men who enter upon the life of a drug clerk, although "cducated " as far as scholastic experience goes, yet are very ignorant as to the first principles of business education, and very frequently as to the aims of the profession in which they are enlisting. To be a thorough pharmacist is not mercly to be a vendor of drugs, a dealer in "notions" and similar lines of sundries, nor in fact to be merely a capable dispenser of prescriptions, but besides possessing a good education, a practical knowledge of the business part of his vocation and a fair insight into the scientific branch of the business, he must make himself thoroughly acquainted with the therapeutical, as well as the chemical, uses and characteristics of the goods he handles, and have an intelligent idea of the highest aims and dutics devolving upon a member of so noble a profession. These cannot all be gained in a day, nor are they the outcome of a college course, and the drug clerk who will strivemostassiduously to cultivate these traits and ambitions is the one who will succeed best, and as no one person can claim all the intelligence and experience in a locality, so it is that gatherings of the nature proposed will lead to a more liberal exchange of ideas and an elevation of the standing and character of their employment. The drug clerk of to day is to be the pharmacist of to morrow, and the more time-server of a clerk, if he ever happens to have a business of his own, will be of the class of proprietors who are utterly regardless of the welfare of their employees, or the real interest of their customers. Gratification of self and a desire for money being the sole aim and object of their ambition. This may in some measure be overcome by "rubbing against cach other" in associations of the kind proposed. Other objects might also be attained, namely, the earlier closing of drug stores, a relief, from some at least, of the Sunday labor and a general discussion of the many problems that are continually arising both in business and educational matters pertaining to the profession. Thus preparing for the future, the drug clerk of to day may, if he will, carve out in a great measure the business and the standing of his profession for the years to come.

As to the contention of our correspondent, that drug clerks have to work for " three or four dollars per week," we must confess that we have never yet known any clerk that would work for that amount, nor can we believe that any man would ask a qualified clerk to give his time for any such paltry sum. However, it must be remembered that a clerk is worth just exactly what he makes himself worth to his employer. One that is properly qualified by having passed his examinations, and does everything he can towards the promotion of his employers' interests, can always depend on being reasonably well paid for his services.

PELANGIN is a German specialty recommended for use in sea-sickness. It is said to be (Phar. Zeit.) a solution of antipyrin, cocaine and calleine.

Wholesale and Retail Druggists.

A retail druggist of Montreal, in a letter to the *Daily Witness* of that city, complains of the discrimination made by the Pharmacy Act in that Province in favor of wholesalers in contra-distinction to that of the retail trade. The letter, which we append, explains itself :

"According to the Quebec Pharmacy Act no person, unless he has obtained a certificate from that body showing that he has passed the preliminary examination, can be allowed to serve even a bottle of patent medicine over a retail druggists' counter, and unless he is a certified clerk or a licentiate of pharmacy he cannot dispense even the most harmless prescription.

"Whilst in no wise finding fault with these very necessary restrictions, I wish to call attention to the very different position in which the wholesale houses are placed. There appears to be no law compelling them to have any qualified person in their employ, but at the same time their employees are allowed to send out in quantities not only harmless drugs but deadly poisons in any quantity that may be asked for by the purchaser. There seems a slight incongruity in this. Surely if it be considered necessary (and it undoubtedly is) that the retailer of drugs, etc., should first prove himself a competent person for the position, the same necessity must exist in the case of the wholesale dealers. But as the law stands at present there is positively no restriction at all, and the most dangerous compounds may be handled by assistants who have not qualified themselves according to the Quebec Pharmacy Act. We retail druggists, on the contrary, have to pay high salaries to our assistants, who themselves have had to spend considerable time and money in qualifying themselves according to law, to stand behind our counters and I for one fail to see why the wholesale men are allowto do with impunity that which would entail a leavy penalty upon the retailers. In conclusion, I think that before further risks are run or accidents happen, it might be as well for the Pharmaceutical Association to look into this matter and if possible have the laws in these respects amended, for unmerited blame frequently falls upon the competent retailer through the acts of the incompetent employees of the wholesalers."

THE "Progress of the World" of the Review of Reviews is not confined merely to a review and discussion of current political, financial, economic and sociological events. In this department of the March number, for instance, appears a report upon the geographical and scientific explorations that have recently been completed, or are now being carried on, accompanied by maps and portraits of the explorers.

Salophen, when triturated in the dark, omits a bluish-white light.

IMPORTANT

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We have pleasure in advising you that by special arrangements just completed with the proprietors of WYETH'S BEEF, IRON & WINE, we are enabled to offer to the CANADIAN TRADE a Reduced List of prices on this standard preparation, the Original and only Genuine Beef, Iron and Wine on the market.

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For	1	doz.	and	less	than	3	doz.,	\$7.25	per	doz.
" "	3	44	••	"	* *	6	**	7.00	••	44
"	6	" "	"	"	" "	12	"	6.75	"	" "
"	1	gro	ss an	d up	ward	s,	-	78.00	"	gross.
A disc								l be allo irchase		i, if paid

We trust that this change will meet with your approval, and will ask you to kindly send in your valued order.

DAVIS & LAWBENCE CO., Limited. Montreal, Oct. 20th, 1893. General Agents for Canada.

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Improved Bronehial Pastilles

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This preparation is no "cheap John candy, but an elegant com-pressed powder, and is as pleasant and efficacious a lozenge as ever introduced for the relief of the versions disorders of the respiratory organs, and a valuable remedy to the conv of to my bronchial affections, such as Influenza, Hoarseness, Soreress of the Throat, or any irritation of the throat arising from cold.

TWO SIZES IN NEAT LID BOXES.

Large (containing 60 Troches) \$10.50 per gross. 6.50 ... Small (64 30 ..

Will be glad to have your valued order, or at least let us send you a Sample.

837 We can also quote Special Prices in Bulk for this Troche.

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I like the paper much, and have many tangible proofs that it pays a draggist to put out a paper like this. The other day one of the many instances occurred. An old man came into my store and said, "I got your paper the other day, I see you keep Trusses, I require one." I furnished him with one and a few other things which came to about \$5. I shall get another edition of your paper seen.

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> "Our doubts are traitors, And make us lose the good we oft might win, By fearing to attempt."

Or GEORGE W. DAVY, Ph. G., Coatesville, Pa.





Òn an Imperial '' British Pharmacopœia.''

PROF. ATTFIELD, F.R. S.

The author has prepared the following paper entirely in his private capacity, yet with a due sense of the responsibility involved by his position as the appointed editor of the next pharmacopecia. It is written with a threefold object. First, of acquainting pharmacists and others in Great Britain, Treland, the Colonies and India, with the nature of some proposed alterations of the pharmacopasia which have recently been considered by the General Medical Council. Secondly with a desire to encourage pharmacists to continue to work at pharmaceutical researches bearing on the pharmacopæia by showing them (a) how their past researches have assisted the Editors of former pharmacoposias and the Editor of the Addendum of 1890; (b) how such researches, condensed by the Annual Reporter on the pharmacopicia have been accepted and acted on by the Medical Council; and (c) how these and similar researches in the immediate future will maintain that conjunction of medical with pharmaceutical work which is on all sides admitted to be of benefit both to medicine and to pharmacy Thirdly, it is written to invoke the aid of medical, chemical, botanical, and pharma centical friends, both at home and abroad in what must, in any case, be prolonged and arduous editorial labor. The whole paper must be regarded as treating of what is more or less tentative, and subject to the future views and action of the Medical Council and of the Pharmacopreia Committee This much being remembered by readers, the author will not be accused of writing prematurely, but will it is to be hoped, be credited with the simple desire to awaken interest in, and facilitate consideration of. . > important a subject.

The British Pharmacopaia is produced under the Medical Acts of 1858 and 1862, the duty of providing for its compilation, and of deciding as to the necessity for, and the date of, any fresh edition, being placed by the legislature on the General Council of Medical Education and Registration of the United Kingdom. For such initiation, a medical body is clearly the most fit, especially when the actual compilation is carried out by pharmaceutical, in addition to medical experts.

The current pharmacopeia is a condensation of the prior pharmacopeia of the three countries, namely, the London Phar macopeia (1618, 1650, 1677, 1721, 1746, 1788, 1809, 1824, 1836, 1851), the Edinburgh Pharmacopeia (1699, 1722, 1736, 1756, 1774, 1792, 1803, 1807, 1809, 1813, 1817, 1839, 1841), and the Dublin Phar macopeia (1807, 1818, 1825, 1850) -possibly others, some, perhaps, reprints to gether with additions made in the result ing conjoint pharmacopeia, or British Pharmacopagia (1864, 1867, 1885, and Addendum of 1890).

Now, my conception of a true British Pharmacopacia has always been what, for convenience of description and discussion, may be termed an Imperial British Pharmacopieia; a work which, while being strictly conservative yet properly reflecting the science of the time, should be as useful in the remotest corner of the Queen's dominions as in the centre of London; a national medicino book of which, as of the empire, it might be said, but without boasting and as simply expressive of its silent never-ending usefulness, "the sun never sets on its might." In 1886 that conception ripened. The present pharmacopicia had been published in the autumn of 1885, and one year after the editorial duties of himself and his colleagues, Professors Redwood and Bentley, had could, the writer was requested by the Pharmacopeia Committee of the Medical Council to advise the Council as to any procedure that might be desirable to secure satisfactory future revisions. The reply to this request, dated November 1st, 1886, was printed and eirculated amongst the members of the Council, and, it may be added, has been acted on, in its entirety, by the Council. It was two-fold, and related (a) to the official recognition of pharmaceutical research; (b) to imperial extension. It is necessary to deal with the former of these two subjects before reverting to the latter.

The first (a) of the 'vo suggestions whereby the due pharmaceutical efficiency of the next British Pharmacopaia might reasonably be expected to be promoted was, that annually there should be prepared for and presented to the Pharmacopreia Committee of the Modical Council a printed "Report on the Progress of Pharmacy in its Relation to the Future Revision of the British Pharmacopaia of 1885;" that is to say, a report on any and every original research, or published experiment, or suggestion, relating to any one of the thousand or so articles, or sections, or monographs, of the pharmacopage (the number is now (1891) 1,003, if the Appendix and Addendum be included), or on the arrangement or classification of the contents of the volume, or on its nomenclature, systems of weights and measures, and so on ; the report to include the reporter's own views, and his comments on suggested omissions, additions, or alterations. The writer had the honor of being appointed the Reporter, and his seven annual reports have been accepted and printed by the Medical Council from year to year. The first, for 1886, covered rather more than one year, namely, from the date of publication of the pharmacoposia in September, 1884, to the end of December, 1886. The eighth, for 1853, will be presented at the approaching spring meeting of the Council in May, 1894. The arrangement of the contents of the reports is alphabetical, like that of the pharmacopeia itself, hence future reference will be easy; especially if, as may be hoped, there should be added, in due

time, a single general index to all the reports issued during the life of the present edition of the pharmacopacia. Each paragraph of each report has full reference to the volume and page of the weekly journal containing the original research, experiment, or suggestion. In many cases subjects have not been reported at the year's end, but when the papers upon them or the correspondence respecting them have been more or less completed. A stock of these annual reports has been retained at the offices of the Medical Council sufficient in number for each member of future compiling Committees, medical and pharmaceutical, to be supplied with an indexed, interleaved, bound set, but insufficient for any further distribution. A set, so far, is already in the library of the Pharmaceutical Society in London. A similar set, as far as published, is now presented to the library of the Society in Edinburgh. By this "report-ing" plan the labors of original workers will more readily be recognized, and the duties of compilers protanto be facilitated.

The encouragement thus given to pharmacists to continue to make original phar macentical investigations is obvious. Ever since the pharmacists of the kingdom were organized into a public body, by the foun dation, more than fifty years ago, of the Pharmaceutical Society of Great Britain, those members of the craft, whether pupil, assistant, or principal, who possessed the necessary powers of accurate observation, reflection and description, and the necessary educational training as distinguished from the ephomeral results of "preparation for examination," have, in fact, published such investigations, ranging from the humblest "note" to the most advanced "research," the outcome of personal cost and effort or of conjoint funds and labors of societies, as read at meetings of the students' associtions, assistants associations, and prin cipals' associations, in London, in Edin burgh, and in the leading provincial towns, or at the annual meetings of the British Pharmaceutical Conference, or as other wise published. Such researches have sometimes been solely chemical, occasion ally solely botanical, rarely solely physi cal, now and then solely mechanical, though always bearing on pharmacy, but the great majority have been of that conjoint and definite nature that can only be characterised properly as "pharmacenti cal," while they have, as a whole, worthily reflected the sciences on which pharmacy is founded. And the first British Phar macopoeia, issued in 1864, did contain more evidence than was afforded by the previous three separate pharmacopoeias, of such original work by pharmacists. But it seemed, at the time, that the next revision of that book might still better represent the advancement made in pharmaceutical research since the Plan inacoutical Society had been established, and since the previous Edinburgh Phar macoporia had been issued, and still better reflect the increased activity of original workers during the then recent years of the Society's life the thirteen

Read at a meeting of the Pharmacentical Society of Great Britain, on Wednesday, February 14th, 1894.

years since the previous Dablin and London Pharmacopoeias had been issued. the writer, therefore, in 1861, as one of the professorial staff of the Pharmaceutical Society, delivered two lectures before the Society "On the Relation of the British Pharmacopoeias to Pharmacology." His collengue, Professor Redwood, also gave two similar lectures, "On the Chemical and Galenical Processes and Prepara tions;" and his colleague, Professor Bentley, two "On the Organic Materia Medica of the Pharmacopoeia." The six lectures, all delivered by request of the Council of the Society, were reported verbatim, and will be found in the Pharmaceutical Journ d, 2nd ser., vol. v., pp. 406, 416, 464, 479, 561, 628. and in vol. vi., page 7. In due time the Medical Council ordered a new British Pharma copoeia to be prepared "under the direction of a Committee," of which Sir Richard Quain, who had recently joined the Council, was Honorary Secretary, and "by Professor Redwood, of the Pharma centical Society, and Mr. Warington, of Apothecaries' Hall." This second edition of the pharmacopoeia was issued in 1867, the preface stating, in reference to the first edition, which had successfully fused the three Pharmacopoeia of London, Edinburgh, and Dublin into one, "the important work of amalgamation having been effected, and national differences reconciled, in some cases at the cost of mutual concession, it has been thought desirable, in preparing a new edition, to submit the work to a general revision, with the view of removing any defects that might be discovered, and of supply ing ascertained deficiencies." The result was satisfactory. Sir Richard Quain threw himself into the task of general direction with characteristic energy, which has increased in effect as he ad venced from the Secretaryship to the Chairmanship of the Pharmacopocia Committee and, now, to the Presidentship of the Council. The labors of original pharmaceutical observers and investi gators were appreciated and utilized. The same statement may be made, the writer ventures to hope, as regards the third edition of the pharmacopeia, issued 18 years afterwards, in 1885, in the produc-tion of which, Mr. Warington having died, Professor Redwood's two colleagues

namely, Professor Bentley and myself —were editorially conjoined. No worthy pharmaceutical investigation, great or small, was knowingly omitted from consideration in the compilation of the 1885 pharmacopeia. That work was, as the writer stated when defending it in December, 1885, against certain critics whom he regarded, rightly or wrongly, as somewhat unwisely hostile (*Pharma* centical Journal, 3rd ser vol. xvi., pp. 465 to 472) was, he said, as regards its pharmacy "the pharmaeists' own phar macopeia," and, further, in reference to the galenical formulæ as a whole, that the bulk "is already largely constructed by pharmacists; it is they who have supplied the chief pharmaceutical materials of the edifice, their own pharmaceutical experts being employed to put those and other materials together."

But the free and full recognition of pharmaceutical research by the Medical Council is still more obvious in the 1890 Addendum to the present pharmacopoeia. The labors of pharmacists at original investigation had become very important. It was only necessary, with the ever ready aid of Sir Richard Quain, to draw the attention of the Pharmacopecia Committee of the Medical Council to those labors, for a request to be sent to the Council of the Pharmaceutical Society for pharmaceutical help in the compilation of the Addendum. (See Pharmaceutical Journal, 3rd ser., vol. xx., pp. 454 and 1009.) The result is seen on page 7 of the Addendum, where appear not only the names of the members of the Pharmacopoeia Committee of the Medical Council but also those of a Pharmaceutical Pharmacopoeia Committee who were responsible to the former committee for the production of the practical pharmacy of the Addendum. Here stands evidence before all the world, not alone of the union of medicine with pharmacy, for that already existed, but of the liberal recognition of that union by the Medical Council, recognition desired by the leading speakers and workers of the Pharmacentical Society for fifty years, and a fitting inaugural event for its Jubilee. The writer's pride will be pardoned, even though his modesty be questioned, if he here reproduce two paragraphs from the report of the Pharmocopoeia Committee adopted by the Medical Council on November 29th, 1890 -- "The Committee recommends that the best thanks of the Medical Council be presented to the Council of the Pharmaceutical Society of Great Britain for the valuable assistance rendered." "The Committee view with satisfaction this conjunction of medical and pharmaceutical work in the production of the present extension of the pharmacopoeis, a combination that cannot but be productive of future, as well as immediate, benefit both to medicine and to pharmacy. To the Annual Reporter on the Pharmacopocia to the Medical Council, Professor Attfield, must be accorded the credit of initiating and organizing this desirable union." (Pharmacen-tical Journal, 3rd ser., vol. xxi., p. 525.) That Reporter is of course gratified at his success, but what he desires to emphasize just now is that the union was really the result of pharmacists' prosecution pharmaceutical research.

The forecast of future benefit was soon justified—namely, three years afterwards. For within the past few months, on Decomber 4th, 1893, the Medical Council adopted the recommendation to invite the Pharmaceutical Society to help in the compilation, not of a comparatively small Addendum, but of a new edition of the British Pharmacopoeia. (*Vide* Appendix.) This flattering invitation coming direct from the Medical Council, it follows that the Medical Compiling Committee which

will, with the help of the medical authorities and their medical experts throughout the kingdom, decide on what additions they would recommend to be made to the present Pharmacopoeia, and the Pharmacentical Compiling Committee which will, inter se and with other expert aid, decide on the best formlae, &c., for the additions, will be on that satisfactory footing that apparently leaves little or nothing to be desired in the interests of medical practitioners, pharmacists, and the public. Pharmacists are governed by the pharmacopocia; they will now, as a result of their pharmaceutical research work, and through their pharmaceutical representatives, have a voice in its pharmaceutical construction. Here then is encouragement to pharmacists to continue to work at pharmaceutical investigation, encouragement ample and liberal, and coming from the highest constituted authority.

To revert now to the question of extending the area of usefulness of our great national "Book of Medicines."

The opportunity of again considering the idea of possibly extending the usefulness of the pharmacopoeia was afforded by a communication which came before the Medical Council at the meeting on May 28th, 1892, from the Government of India, in effect recommending "the omission, in due time, of the almost useless and very expensive saffron from the pharmacopoeia, and a substitution, in India, of an indigenous oil for olive oil in the preparation of ointments, plasters and liniments." The Surgeon-General with the government of India thought "that this principle of excluding useless and expensive ingredients might be carried further and extended to the general drug list, as he considered, for example, that oil of lavender in camphor liniment, and oil of cajuput in croton liniment were useless and costly additions."

The second (b) of the writer's two suggestions of November 1st, 1886, to the Medical Council respecting the procedure necessary for promoting the increased efficiency of the next British Pharmacopoeia, namely that of imperial extension, was, therefore, once more brought before the Pharmacopocia Committee on May 25th, 1893, in the following terms, again raising the question in the words of the letter of 1886:-- "The question as to whether or not any changes-and, if any, what changes-can be effected in a future British Pharmacopoeia to better adapt it to Colonial requirements, or, in other words, the requirements of all the more distant parts of the British Empire. Towards that object the Council passed the following resolution:-"That the Pharmacopocia Committee be authorized to enter into correspondence, through the Privy Council, with the India Office, and the Colonial Office, with a view to ascertaining in what degree, if any, the British Pharmacopoeia can be better fitted than at present to meet Indian and Colonial requirements as regards important natural drugs and pharmaceutical preparations." In the following October letters were

written to the Privy Council by the President of the Medical Council. These have been published in The Pharmaceutical Journal, vol. lin., pp. 470 to 472 (cule also Appendix.) A very large number of the copies of the letters were distributed in November last by the India Office and the Colonial Office, for use by the Medical and Pharmaceutical Authorities in India and the Colonies. This action was regarded by the Council as the first step towards the issue of another British Pharmacopoeia-whenever that may be, in view of the time that must be occupied by the many and repeated communications with even the most distant parts of the empire. In short, the Council formally ordered the preparation of the work, and did the writer the honor of appointing hun editor.

That much, and that much only, has been settled. Whatever is said or done by medicial practitioners and by pharmacists, at home or abroad, as the outcome of what is stated in this paper respecting the next edition of the British Pharmacopocia, must be regarded as tentative and subject to the future views and action of the Medical Council, as stated already. So far as action has gone at present we may perhaps interpret the attitude of the Council in this matter. towards the Colonies and India, to be, not one of desire to produce an Imperial Pharmacopoena, and of request for aid in carrying out such a desire, but rather of willingness to make the British Pharmacopoen more useful than at present, both broadly and in all details, if it is not already sufficiently useful, whether in India or in any one of our Colonies. The Medical Council has already stated, in the two letters referred to, that all suggestions shall receive the best and fullest consideration. They may be sent to the offices of the Council, addressed to the Registrar, 299 Oxford street, London, W.

As to the form which proposed Colonial and Indian additions, alterations, or omissions might take, the Medical Council has directed as follows:--"Each suggestion should be as detailed as possible, and each list of suggestions as complete as pessible." It may be risky to venture on advice to distant friends, but, for example, if the insertion of a new natural raw drug or article of materia medica is desired by medical practitioners, a paragraph respecting it might be drawn up in the general form of similar existing paragraphs in the pharmacopoens, and then might follow facts and reasons in support of the suggestion. Any desired pharmacoutical preparations of the drug might then be mentioned. Formulae for the preparations of the said drug would be drawn up by persons having adequate pharmaceutical knowledge, and be in a form to fit them for insertion amongst the similar existing official formulæ for extracts, limments, eintments, pills, timetures, &c., pharmaceutical facts and reasons for insertion then following. New definite chemical substances might have similar literary teatment. Proposed new

preparations of old vegetable or mineral articles of the materia medica might be similarly presented for consideration. Adjustments of strength or potency of existing preparations will not be difficult in a pharmacopoeia which is already largely an amalgamation of three pharma coppeins, but there must be reasonable concession when important percentage alterations are suggested and reasonable respect for the status quo. Similar remarks apply to the omission of any existing ingredient of a formula or the inclusion of a new ingredient. The total omission of a drug from the present pharmacopoeia will not be suggested without the most careful consideration by the medical authorities making the sugges tion. Opinions on matters having broader bearings than the foregoing probably will be welcomed, but will neces satily merge into subjects to be discussed in their general imperial relationships rather than from a local standpoint.

To turn now to the discussion of the character of the next British Pharmacoppen in its home editorial aspects, a discussion which it is intended that this paper shall initiate, all views, it may be stated once more, of course being subject absolutely to the controlling voice of the Medical Council and the Pharmacopocia Committee.

Clearly it would be unwise to alter the nomenclature of the present pharmacopocia in any important respect. In the recently issued Pharmacopoeia of the United States, the Latin nomenclature. of the previous edition is retained while there is a half and half alteration of the English nomenclature. For instance, Maynesu Suphas and Tinctura Opii ap pear in that old dress which, let us hope, they will long retain. While, however, under the leading title Tinctura Opii there appears the leading English title Tenchare of Opnum, which also is a trans lation, under the leading Latin title Magnesia Sulphas, there appears, not the translation of those words, namely, Sul phate of Magnesium, but, in a single line in type of Egyptian blackness, Magnerium Sulphate, and so on with the whole of the galenical and the chemicel nomenclature. Here is a sacrince of the advantages of translation and of litorary eleganee to mere "up to-date" chemistry and its will o'the wisp nomenclature. Scientific chemists claim the right to alter their views of the chemical constitution of matter as often a- may be desirable, to substitute one crutch, or rather hatpeg; of hypothesis or theory for another whenever the advancing strides of their science may render such a course expedient; to change notation in accordance with their views wherever the conjoint wisdom of the followers of chemistry crocts a guide-post; and to give new consistent names to formulae. But the pharmacist and the medical practitioner, and the writer as a professed, if anxious, guide of both, should place in the front rank of the qualifications for a name, not supposed constitution, which is here to-day and

gone to-morrow, but permanence a name which shall, if possible, he main biguous, contain no numeral syllables, be recognized throughout the empire, and possess the very minimum of instability. Chemistry is unfortanately splitting off from pharmacy Chemists have arisen other than "chemists and druggists," and "chemist" and druggists" are growing up who are not the former, or scientific "chemists," but "pharmacists" alone Bet ter, perhaps, accept what appears to be the inevitable and be content with the name "pharmacist," but therewith let them adopt the motto, "Pharmacy for the Pharmacist." Pharmacists should have their own nomenclature, which, while not inharmonious with the frequently-changing noncellature of chemistry, shall have the prime virtue of all possible permanence. Few British medical practitioners or pharmacists will sympathise with this recent action of the compilers of the otherwise highly improved Pharmacopoeia of the United States. Let us trust that that we shall retain in our next British Pharmacopoeia both the Latin and English leading chemical manaes of the prosont edition as a rule, with perhaps no so-called indeclinable substantives

The writer's views respecting official synonyms, more especially those which tend to remove difficulties and uncertainties respecting the composition of what may be termed household remedies, have been set forth in the pharmaceutical press, and so far have been strongly supported. The Pharmaceutical Pharmacoporia Committee may be trusted to give a practical outcome to the matter. The subject is wide in itself and in its beatings, but is, perhaps, fairly focussed in the Reports for 1887, 1888, 1889, and 1890.

Respecting official weights and measures, pharmacists would much help by discussing the question of the substitution of grains by measure that is, "fluid g.nins" of "grain measures" for minims. We ase ounces (ozs.) and fluid ounces (fl. ozs.), why not grains (gra) and fluid grains (fl. grs.), the minim gradually, in the course of years, dropping out of use? Viewed in the light of variation in doses, the subject has not apparently much therapeutical importance, and its legal bearings are not insuperable ; but its pharmaceutical importance is considerable in relation to the question of accuracy in compounding solutions and in dispensing, and as promoting simplicity of relation-ship of weights to measures. In the Year Book of Pharmerg, 1889, p. 498, will be found a series of formulae for official liquors, in which I part by weight of active principle is contained in 100 similar parts by measure for example, I ounce of americ in 100 fluid ounces of solution, or 1 grain in 100 fluid grains. In the technical language of pharmacy these are true "I per cent solutions" because of the implied practice, which never need be abanden d - namely, solids by weight, logaids by measure. Where the words "one per cent." are not

qualified by something expressed, something understood, or an implied practice, then, of course, the words "one" and "per cent." must, by the ordinary laws of language and logic, apply to the same thing or condition and not to dissimilar things or conditions. A solution containing I grain in 100 minims is scarcely an equally technically true one per cent. solution, and certainly not an equally simple technical one per cent. solution. The writer must not yet express a decided opinion on the question of the abolition of the minim.

But a still more important question relating to official weights and measures is the growing demands on our attention of the metric decimal system. This is now practically the sole system in the United States pharmacopoeia. Our colonists in Canada must largely use that pharmacopoeia; and it may be expedient to give them official formulae on the metric sys-We must, of course, assume that tem. the medical practitioners and pharmacists of the old country, at least, would not at present accept a pharmacopoeia on the metric system alone. Cannot those monographs of our current pharmacopoeia which include weights and measures on the imperial system, be followed in every case by formulae on the metric system? Sometimes it will only be necessary to repeat the lines containing the quantities, the directions applying to either system; sometimes the directions will admit of adaptation to either system. sometimes the paragraphs of directions in terms of the imperial system will also have to be repeated in terms of the metric system. The book need not be increased materially in size by such an extension of matter, for the "spacing," at least, might be less liberal than at present. It is not now desirable further to enter on this ques tion, for necessarily it must be fully discussed in the Colonies and India, and afterwards at home.

Colonial and Indian additions to the pharmacopoeia have been mentioned. Considering the activity exhibited in the search for and in the making public of new drugs during the past twenty years, additions of many really new drugs can-not be expected. The question of home additions is important for medical consideration, but is one on which pharmacists may be able to supply some information to medical authorities in regard to the frequency or infrequency with which the more firmly established "new reme-dies" are prescribed. Here attention may drawn to the following paragraph in the preface of the new Pharmacopoeia of the United States:-"In accordance with the positive instructions of the Convention, those of the new synthetic remedies which cannot be produced otherwise than under patented processes, or which are protected by proprietary rights, were not admitted into the pharmacopoeia."

It would be outside the scope of this paper to touch on the questions of botanical nomenclature; general mechanical processes; how far the pharmacopoeia may

be made more, or less, an undergraduate's book than at present, that is to say, whether or not, for example, explanations of tests should be included, and, on the other hand, whether or not most of the descriptive sentences at the commencement of the sections or monographs should be excluded; nor to consider any general rules relating to the limits of demand of purity of articles.

Still less can now be considered the details respecting any particular article or monograph of the pharmacopoeia.

The extremely important subject of pharmacological research on the medical side, the subject on which the question of additions to or omissions from the pharmacopoeia should largely depend, has not been touched in the paper. Such research, by many workers, is much needed. .

The younger workers at original pharmaceutical investigation will not accuse the writer of merging editor in professor, nor the older of merging editor in reporter, if he ventures to beg them to continue to experiment-experimentexperiment, There is dignity as well as definiteness in the words "pharmaceutical research;" and it is on accurate pharmacentical research, properly so called, from a simple observation to an elaborate investigation, far more than on strictly chemical, physical, or botanical research, that the position which pharmacists have won for themselves in the production of the pharmaceutical portion of our pharmacopocia can be maintained, it is on published accurate pharmaceutical, research in the main, that the pharmaceutical basis of future Imperial British Pharmacopocias can be constructed satisfactorily.

Postscript -The decision by the Medical Council to entertain the plan of giving the British Pharmacopoeia an imperial character has been welcomed cordially, not only by those present at the meeting of the members of the Pharmaceutical Society of Great Britain, when this paper was read, but by speakers and writers representing all classes interested in the project.

Improved Syrup of Ipecac and Opium.

H. L. GRIMES, Ph. G.

Syrup of Ipseac and Opium, or Syrup of Dover's powder, is one of the unofficial preparations that has taken a position of growing importance in the armamentarium of the practising physician. It is more acreeable to the taste than Dover's powder, and, being liquid, often enters into prescriptions for pectoral troubles, -combining effectively with other expectorants and giving the sedative and dia phoretic effects frequently desired in the treatment of pulmonary discases

Formula for this preparation have been published in the various pharmacentical jourremains the true that and a particular form-nals from time to time; and of all that have come to my notice, that of the "National Formulary" is the best, though also open to criticism. The tendency of huid extract of ipecae to causo fermentation when mixed with syrup, has caused much annoyance probably to overy pharmacist at some time in his experi-ence. This tendoncy is manifest in syrup of

Dover's powder; not to the degree that it is in symp of ipecae, U. S. P., but still to such an extent as to occasion investigation by the writer as to the means of removing this drawback.

The following formula is one which has been evolved in my laboratory, and produces a syrup that can be kept perfectly for a long time:

Each fluid dram (3.75 c. c.) of this syrup represents 5 grains (30 etg.) of Dover's powder or ½ grain (3 etg.) each of iperae and opium. The presence of the rather considerable quan-tity of decolorized tincture of opium in the preparation, makes the resulting sympof less density than is desirable, if U. S. P. syrap be density than is desirable, if U. S. P. syrup be used to make up the prescribed volume. To obviate this, I prepare a syrup by dissolving, with the aid of gentle heat, 62 pounds Av. (3.175 kilos) of gentulated sugar in 3 pints (1,420 c. c.) of water, and straining through muslin when *nearly* cool. This quantity of "special syrup" will be sufficient to make the volume specified in the formula. The near of observing the extent of about term

The use of glycerin to the extent of about ten per cent., cannot be objectionable from a therapentic standpoint, and is certainly admirably adapted to the purpose, pharmacentically con-sidered. Symp of Dover's powder prepared in this manner has kept perfectly for a long period. - Merek's Market Report.

Sanguinal. _

It is well known that metallic iron, and most inorganic solts, are not casily and rapidly ab-sorbed into the body, but is found in an unaltered state eventually. To this fact is due the presence of such a number of organic prethe presence of such a hinnor of organic pre-parations of iron, such as iron peptonate or albumenate, and similar compounds. The re-searches of Hamburger show the case with which organic compounds, capable of rapid absorption, are formed in both the animal and the vegetable organism. On account of this fact fresh blood of animals is being used as a remedy for chlorosis and aurunia. Dried defibring to blood and pure hamoglobin in the liquid form have recently been used too in this connection. The objection to many of these more or less natural preparations is their lia-bility to decompose. The following prepara-tion, containing a fair proportion of albu-menoid matter, is free from all immediate decomposition products, and can, therefore, be recommended:

Natural salts of blood	41
Ocyhanozlobin	
Peptonised allumen	44

The value of the natural salts of the blood is in all probability dependent on the low specific gravity of the scrum in cases of amenia, -Apotheker Zeitung.

Sources for making syrap of lodide of iron is made by Roussillon, according to the follow-ing formula which he claims yields an unaltering formula which he claims yields an unalter-able product: A boiling solution, composed of resublined iodine 16 40 gm., iron filings S gm., and distilled water 30 gm., is filtered into a flask containing 220 gm. pure neutral glycerin, the filter washed with bailing distilled water; the liquids are well mixed and subjected to a maharte best matter to accurate 210 gm. The moderate heat until they measure 240 gas. solution is then filled into well dried bottles, which are closed, and upon cooling the stop-pers are covered with puzifin. Jour de Pharm, et de Chum. , Journal of Pharmacy.

Pixon is a soluble wood tar preparation made by heating together three parts of tar and one of green soap, and gradually adding three parts of 10-per-cent solution of potassa. It is a brownish, clear liquid, soluble in water, is not caustic, and has been found to prevent the formation of bacteria in culture media.

CANADIAN DRUGGIST.





Radlauer's Somnal.

AETHYL-CHLORALURETHAN. (REGISTERED)

THE NEWEST & MOST EFFICIENT SOPORIFIC REMEDY.

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale or cognae, produces in half-an-hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedlichshain, Konigliche Charite and Konigliche Universitats Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melan cholia, Hysteria, Morphinismus, and Diabetes. The low price of Soux u enables its use in the poor and workmen's practice and in hospitals.

Radlauer's Antinervin.

(SALICYLE BROMANILIDE) in the form of Powder, the most efficacious Antipyretic, Antineuralgic, and Antinervine.

ANTINERVIN replaces and surpasses Antipyrin, has no hurtful secondary effects, and is cheaper. Taken in doses of 8 grain four times a day, it is an excellent remedy for Feverish, Catarrhal and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Astlima, Tuberculore, Vellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diphtheritis, and other typical Fevers

bles its use in the poor and workmen's practice and in hospitals. MANY GOLD MEDALS HAVE BEEN AWARDED. S. RADLAUER, Kronen Apotheke, FRIEDRICHSTRASSE, 160, BERLIN, W.



Is non-freezing and remains perfectly clear at 13 above zero.

Sold in 15 and 20 Gallon Kegs.

HAS THE HIGHEST RECOMMENDATION.

MUNN'S CELEBRATED NEWFOUNDLAND

_iquid Fish Glue

STRONGEST ! BEST ! CHEAPEST ! Ever offered on the market.

1 and 2 oz. Bottles.

NDATION. | TINS Gallon, Quart & Pint. Also in Bulk in Barrels & Kegs. SEND FOR SAMPLES.

STEWART MUNN & CO., = Board of Trade Building, = Montreal. AGENTS FOR THE DOMINION.

To the Trade.

In all localities from which we have secured and published testi monials for our **Dodd's Kidney Pills**, the sale has been greatly increased, which resulted to the benefit of the druggist as well as our selves.

We would therefore respectfully request all dauggists to forward us the names of any of their customers who have been cured or benefited by our **Bodd's Kidney Pills**, and secure us the testimony for publication if possible. In return for which we will be pleased to give them the benefit of any advertising connected therewith if desired.

Thanking the Drug Trade for their assistance towards the success of our Remedies, and respectfully soliciting a continuance of same.

Respectfully,

THE DODDS MEDICINE CO., Limited.

"NICKEL IN THE SLOT."



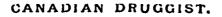
A few of these Perfume Machines left, and will be sold

AT A REDUCTION

To clear out a consignment.

W. J. DYAS, Strathroy, Ont.

Toronto, March 1, 1894.





Practical Microscopy, with Methods and Formulæ for Pharmacists.

E. J. MILLARD, PH. C., F. C. S.

The increased interest with which pathological microscopy is regarded by the medical profession, especially in relation to bacteriology, is an excellent reason why pharmacists should acquire some know ledge of the subject. It has frequently been suggested that pharmacists should undergo a special course in practical histology and pathology in order to relieve the physician of the tedious, and consequently irksome duty of ascertaining the presence or absence of pathogenic organisms or abnormal structures. Suitable classes are held at most of the medical colleges and schools throughout the country, whilst the pathological departments of large hospitals are well-equipped, and much information and experience can be obtained there. The object of the present paper is to give an outline of methods for students, and some of the principal formula for the solutions and stains which pharmacists may be called upon to supply.

THE MICROSCOPE.

A good microscope is the necessary adjunct of every pharmacy, whether the owner be an enthusiast in the subject or not. Students who have to purchase the instrument should avoid second - hand microscopes, unless by reputed makers and in excellent condition. It will be found that a 3 inch and 3 inch objectives are ample for most purposes, provided they have good definitions and angles of aperture about 35° and 110' respectively. Excellent instruments for the purpose are provided by Swift, Watson & Sons, Baker and others, for about £10. For the examination of some bacteria, the use of a 12-inch oil-immersion objective is imperative. This may be obtained for an extra £5 to £8. The microscope should be fit ted with a good condenser on the Abbe model, and a double nose-piece is very useful. Other necessary apparatus will comprise a freezing and embedding microtome, turntable, glass slips and covers, &c.

INJECTING.

It is often advisable to inject colored fluids into the arteries in order to observe their relation to the tissue generally. It is impossible to briefly describe the method of injecting stains into blood vessels, and to properly perform the operation requires training and considerable practice. The two principal injection fluids are prepared as follows:

Fearnley's Carmine Gelatine.—Carmine 3 grms.; liq. ammon. fort., 6 cc.; glacial acetic acid, 6 cc. or q. s.; gelatine, 7 grms.; water, 80 cc. Soak the gelatine in 50 cc. of water for six hours. Rub the carmine with the ammonia in a mortar, and after two hours transfer to a bottle, and gradually add the acid until the color changes to a bright red. Melt the gelatine and add the carmine solution with constant stirring. Fearnley's Prussian Blue Gelatine. -Soluble Prussian blue, 2 grms.; gelatine, 7 grms.; distilled water, 91 cc. Rub tho powder in half the water, and allow to stand half an hour, when pour off the clear solution. Soak the gelatine as in the carmine formula, and when melted add the blue solution gradually with constant stirring. Both masses should be made with best French gelatine, and may be filtered through hot flannel directly before using.

HARDENING AND DECALCIFYING FLUIDS.

Alcohol is the most largely employed hardening agent. The strongest methylated spirit, *i.e.*, 65 o. p., is most frequently used, and the fresh tissue or specimen to be hardened is allowed to macerate in it, changing the spirit daily, for a week or even longer.

Ranvier's alcohol is made by mixing one volume of methylated spirit with two parts of distilled water.

Muller's Fluid. Bichromate of potas sium, 2.5 grms.; sulphate of sodium, 1 grm.; water, 100 cc. Is very largely used in hospitals, &c., as particularly suitable for macerating large pieces and whole or gans. It must be changed occasionally, and the maceration required is much longer than with alcohol. Specimens can be kept practically indefinitely in it.

Klein's Fluid —Chromic acid, 0.2 grm., distilled water, 60 cc. Dissolvo and mix with 30 cc. methylated spirit. To be made fresh as required. Hardens specimens quicker than with Muller's Fluid, but must be changed in the same way. Specimens after thorough hardening, should be placed in running water for an hour, then in a mixture of three volumes of methylated spirit and one volume water for a day or two, and finally kept till re quired in methylated spirit.

Decalcifying Fluid.—Chromic acid, 1 grm., distilled water, 200 cc., nitric acid, 2 cc. For dissolving the salts of bone, whilst hardening the matrix.

Glycerine Decalcifying Flund.—Hydrochloric acid, 5 cc.; glycerine, 95 cc. Objects, such as teeth, bone, ac., are tested frequently when macerated in these liquids by means of a needle. The fluid is got rid of by well washing with tap water.

EMBEDDING AND SECTION CUTFING.

The commonest method of embedding is in carrot. It is suitable for tirm tissues, either vegetable or animal, but very thin sections cannot be cut. Tn vegetable histology this is of little importance, as the cells are so much larger than the average animal cell, which, in the latter case, is still further reduced by hardening. A cylinder of carrot is cut by means of a large cork borer to firmly fit the well of a Stirling's or Cole's microtome. The cylinder is then sliced into two halves longitudinally, and the tissue is placed between the semi-circular pieces in a space scraped for it. The cylinder is now pressed into the well, so that the slit in it points right and left of the operator. The sop of the microtome is flooded with methylated spirit, and the razor slowly worked through the earrot and tissue. Bylmeans of a screw at the base of the level of the cylinder is generally raised between each slice. The section is ready for straining and mounting.

Celloulin .- Hardened tissue is placed first in a mixture of alcohol and ether, and then in a solution of Schering's celloidin. This is made by dissolving the celloidin in a mixture of equal parts of absolute alcohol and ether, A very thin solution is first used containing 3 per cent. of celloidin, and then a 10 per cent. solution of the consistence of mucilage. When removed from these the liquid speedily evaporates, leaving a film of celloidin. This is increased by painting over the piece of tissue with more of the thick solution and allowing the ether to evaporate. Sections are easily cut from this, either by clamping in or freezing on to the microtome, keeping the razor moist with methylated spirit. The sections may also be kept in it until cleared for stain ing, Is useful for delicate tissues, &c.

Parafin embedding is useful where a large number of very thin sections are required, but is troublesome and unsatisfactory compared with other methods.

Freezing in Gum. -The tissue, thoroughly washed free from spirit or hard ening agent, is placed for 12 hours in a mixture of mucilage acacia three parts, simple syrup one part, with 1 per cent. carbolic acid of thymol. With a brush, place a little gum only on the top of a freezing microtome, such as Cathcart's and freeze the tissue on. Then with the plane iron moistened with water cut off a lump, first to barely half the depth of the specimen. If firmly frozen, cut sharply across, raising the level after each stroke by means of the screw. Dip the knife into a bowl of water, and shake the cuttings off. If sections are required to be kept before staming and mounting, they should be placed in equal parts of meth. spirit and water. Although they have a tendency to curl up, yet when transferred again to a bowl of water they instantly open out.

STAINING.

The object of staining sections is to render the structure more distinct and determine the various parts. Nuclear stains, as the name indicates, act upon the nuclei of cells, leaving the protoplasm and cellulose but faintly tinted. The most useful nuclear stains are haunatoxylin, carmine and saframine.

Ehrlich's Homatoxylin (Squire's form). —Hæmatoxylin 2 grms., ammonium carbonate, 0.4 grms.; proof spirit, 40 cc. Dissolve and expose to the air in a shallow dish for 24 hours. Make up the volume to 40 cc. with more spirit and add ammonia alum 2 grms., dissolved in 80 cc. distilled water, glycerin 100 cc., S.V.R. 80 cc. and glacial acetic acid 10 cc.; filter. The stain is diluted with water and the section immersed in it for 12 hours, and afterwards washed with tap water or water containing a trace of alkali. Lithium carbonate dissolved in tap water is used by some histologists. Excess of stain may be removed by washing in <u>4</u> per cent. acetic acid solution. Personally, I prefer the following method as much more satisfactory and expeditions: Macerato the section in the *undiluted* solution for five minutes in a watch-glass, gently warming over a flame. Transfer the section to a flat dish containing acidulated alcohol for a few seconds (if left too long the color is washed out), rinsing the specimen by gentle agitation with a needle. Transfer back again to tap water where it will open out at once, and by agitation the acid is got rid of. Finally, dehydrate in methylated spirit before mounting.

Acid Alcohol.—Hydrochloric acid, 1 cc.; absolute alcohol, 70 cc.; distilled water, 30 cc.

Lithium Carmine.—Carmine, 2 grms.; lithium carbonate, 1.5 grm.; distilled water 100 cc. Digest for a few days and filter. By subsequent use of acid alcohol only the nuclei are stained, and picric acid can be used as counter-stain, or in one solution as with picrocarmine.

Picrocarmine.—Carmine, 1 grm.; stronger solution of ammonia, 3 cc.; distilled water, 5 cc.; gently warm to dissolve, and and 200 cc. of a saturated solution of picric acid; boil and filter. A drop or two placed on section itself when on the glass slip. and gently warmed, gives good results, care being taken that the section is floating in the stain. Excess is drained off and wiped away around the section, which is then mounted in Farrant's liquid. Nuclei appear bright red and tissue yellow.

Safranine.—Safranine, 0.5 grm.; rectified spirit, 20 cc.; distilled water S0 cc. Is useful for staining intra-cellular structure. It is also a specific stain for amyloid degeneration of the kudney, &c., the amyloid material reacting with an orange color, the normal tissue being pink.

Methyl Violet.—Methly violet 0.5 grm., glacial acetic acid, 5 cc.; water to 200 cc. Allow the section to remain in this stain for some minutes, wash well with water, and mount in Farrant. Amyloid material is colored red, and the rest a bluish color.

Methylene Blue.—Methylene blue, 0.5 grm.; rectified spirit, 15 cc.; distilled water, 85 cc. Useful for staining sections of brain, spinal cord, &c. It is also largely employed as a counter-stain in the examination of bacilli, or as a direct stain of micrococci, &c.

Methyl, or Iodine Green. —Methyl green, 1 grm.; rectified spirit, 20 cc.; distilled water, 80 cc. The section is immersed for a minute in the undiluted stain, washed with water, and mounted in glycerine or balsam. Amyloid tissue is stained pink, nuclei blue, glandular structure dark green, and fibres bluish green. According to Squire the amyloid reaction is due to the presence of methyl violet in commercial iodino green.

Eosin.—Eosin, 1 grm.; rectified spirit, 20 cc.; distilled water, 80 cc. An admirable counter-stain to haematoxylin, as it gives a red background. It requires some delicate manipulation to obtain good results.

Gentian Violet. — Gentian violet, 0.5 grm.; rectified spirit, 20 cc.; distilled water, S0 cc. 1s a good nuclear stain, if the section is afterwards rinsed well in acidulated water. Also used for bacilli.

Osmic Acid.--1 per cent. solution in distilled water. It is usually recommend. ed to be kept in the dark, as it is readily reduced; but it has been recently shown that if the distilled water is absolutely free from organic matter, light does not affect the solution. It is a specific agent for staining fat and fatty degeneration in sections, or in the lump.

Magenta.—Fuchsine, 1 grm.; rectified spirit, 15 cc.; distilled water, 85 cc. Used for detection of the comma-bacilli of Koch, &c.

Ziehl-Neelsen's Magenta.—Fuchsine, 1 grm.; rectified spirit, 15 cc.; carbolic acid, liquefied, 5 cc.; distilled water to 100 cc. An excellent stain for tubercle bacilli. Neelsen's method is to take the section from lung, immerse in weak spirit, and allow to stain in the reagent for several hours; decolorise in 2 per cent. solution of sulphuric acid in alcohol for 15 minutes, wash for the same time in water, courterstain in methylene blue for half-a-minuteagain wash in water, dehydrate in absolute alcohol, clear and mount.

Gibbes' Double Stain. — Fuchsine, 2 grms.; methylene blue, 1 grm., mix and add 3 cc. Aniline oil dissolved in 15 cc. of rectified spirit, and lastly, 15 cc. of distilled water. Is used for cover glass preparations, where pus, sputum, &c., are examined for tubercle bacilli. The stain is heated gently and the preparations immersed for five minutes, washed in methylated spirit till no more colour is removed, dry by warming, and mounted in xylolbalsam.

DEHYDRATING AND CLEARING.

Dehydration of sections which have been previously stained or removed from water is necessary before mounting in balsam. Absolute alcohol is the best agent, although methylated spirit will answer if allowed longer time. The section is transferred to the glass slip, and, if from water, allowed to drain. A few drops of absolute alcohol are dropped into the section so that it is covered and floats in the liquid, and allowed to remain for five minutes. If the section has been made in celloidin it must not remain more than two minutes in absolute alcohol or it will dissolve a portion. Clearing is usually effected by means of clove-oil or cedarwood oil. Cedar wood oil is better than clove, as the latter removes some of the aniline colors. The alcohol is drained off from the slido and the area around the section carefully wiped. A drop or two

of oil is placed on the slip close to the edge of the section, and by inclining the slip is allowed to run under the section, which it soon saturates. It is left for a few minutes, then drained by inclining the slip on to the blotting-paper, and the area around the section again wiped clear. Excess of oil may be removed finally by gently dabbing with clean blotting-paper.

MOUNTING.

The best mounting medium is Canada balsam, which has been thinned with either xylol or benzol. A drop of xylol balsam is placed on the section, and a clean cover glass very gradually lowered over all. The proper application of cover glasses is important, or otherwise air bubbles will depreciate the value of the specimen. One edge of the cover glass should touch the slip, and a portion of it, as it is lowered, be covered with the xylol bulsam. As it is gradually lowered it will drive the balsam evenly along over the section and expel all air. They should be left for a week to set.

Farrant's Medium is made, by Cole's method by dissolving 100 grms. gum acacia in 200 cc. of cold saturated solution of arsenious acid and adding 100 cc. of glycerine. Filter bright. Air bubbles may be excluded by pressing evenly and hard upon the cover glass or gently rotating it. It requires about a fortnight to set.

Glycerin Jelly is preferred for botanical sections, and the following form, published originally in the British and Colonial Druggist, answers well:—Gelatine, 1 oz.; water, 6 ozs.; soak two hours, and add glycerine 7 ozs. and carbolic acid 1 per cent. Warm and filter whilst hot.

The final stage of mounting is to ring the cover-glass with cement. Balsam mounts alone do not require it. White zinc cement is popular, and should be followed with a coat of asphalt varnish. If glycerine occurs in the mount, the cement should be preceded by a ring of gold size, or marine glue. It is doubtful if it is worth while for the microscopist or pharmacist to make these, but formulæ for them have been published already in the *B. & C. D. B. & C. D. Diary 1894.*

COCAINE AND BORAX IN THE PRESENCE or GLYCERIN.-The precipitate formed by borax in an aqueous solution of cocaine hydrochlorate disappears on the addition of glycerin. This reaction presents a remarkable phenomenon, on the application of heat. The solution becomes turbid, the turbidity appearing first at the surface, and gradually extending downward, until the entire mass is affected. On cooling, the turbidity disappears completely. The author (a writer in the Repertoire de Pharmacie), thinks the reaction may serve for the determination of the presence of cocaine. He has thus been able to recognize one part of cocaine in 1000 parts of a solution of the same.

The magnesium light was first applied to art photography in 1864.

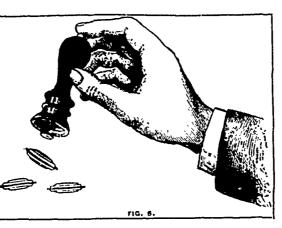
March, 1894.

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*



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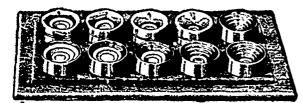
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S. CHAPIREAU,

14 Rue de la Perle,

PARIS, FRANCE.



F:0. 1

THIS form of medication is very popular in Europe, where it has, to a great extent, superseded the pill and capsale. The arguments for its use arc, greater solubility in the stomach, and a shape which readily conforms itself to the shape of the threat, making the act of swallowing easier.

By the use of **CHAPIREAU'S CACHETS** the pharmacist is enabled, upon short notice, to put up powders in a form agreeable to the patient. The outfit neces sary for filling **CHAPIREAU'S CACHETS** is exceedingly simple, easily manipulated and inexpensive. It consists of a small cabinet upon the underside of the lid of which are fastened 10 nickel-plated moulds (Fig. 1.) The lower halves of the

cachets are placed in these moulds, and "fillers" (Fig. 2) are slipped over the top to insure the even filling of the catchet. Graduated compressors (Fig. 3) are then applied to force the powder into the cachet.

Holders (Fig. 4) are used to pick up the upper part of the cachet, and for moistening and joining to the lower half. An automatic handle (Fig. 5) is used for handling the holders and ejecting the filled catchet. Fig. 6 is a water cup used for moistening the edges of the cachets.

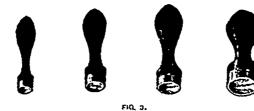






FIG. 4.









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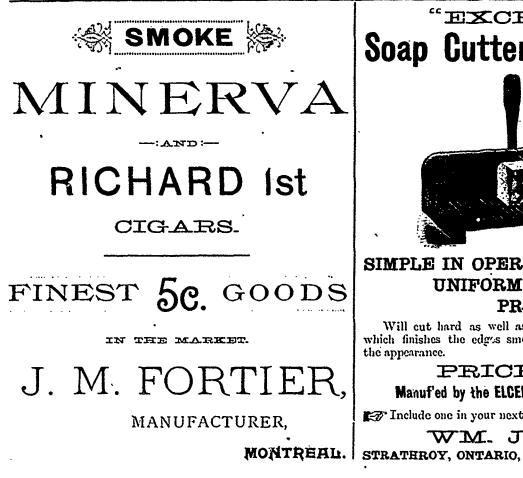
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ANT DRUGGISTS · RIGHT · OFF

TO UNDERSTAND

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A Toronto concern labels their mixture Pennyroyal Wafers, because if calling it anything else, it wouldn't sell without expenditure of considerable money to advertise it as others do, taking thus a dishonest advantage of what has been spent to create the increasing demand now

had for the genuine and original Pennyroyal Wafers. They go still farther, and cut the price on their product to you, hoping thereby to secure your co-operation ; failing to get results, they add as another inducement, "to give you a gold watch" too ; a still further proof of its cheap worthlessness. Can you look your customers in the face and with honest conviction of doing right sell them a substitute for the genuine Pennyroyal Wafers made by us, and by whose advertising they have been brought to your store to buy ? \$9.00 per dozen is the price for the genuine, and no bribes given, to encourage you to deceive the public. Your continued favors as in the past will greatly oblige,

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Formulary.

CARBOLIC TOOTH WAS	п.
Tinct, cardamom comp.	
Tinct, myrth.	
Tinet, vanilla, aa	
Acid, carbolic	
Glycerin	
Tinct, white soap (20 per ct. hyd	lro-
ale), enough to make	Oi.

CLEANSING LIQUID FOR CL	OTHES, STC.
Castile soap in shavings	4 drms.
Carbopate of soda	2 drms.
Borax	
Benzol	
Strong solution of ammonia.	l fl. oz.
Distilled water	1 pint.

Boil the soap in the water and add the borax and soda, and, when quite cold, the ammonia and benzol. Shake well before using.—B. and C. Drug. Diary.

NON-POISONOUS LIQUID BRASS POLISH.
Roche alum
Tripoli 4 ozs.
Water 10 ozs.

Dissolve the alum in the water with heat, then add the tripoli, and shake well before using. Poured on a soft rag and well rabbed, this will burnish brass like gold.

SYRUP OF FERRIC CITRO-CHLORIDE.

A tasteless syrup of chloride of iron, representing 30 minions (approximately 40 drops) of the tincture of ferric chloride to the ounce may be prepared as follows :

Take Tinct. Ferrie Chloride	•fl. 3 1.
Sodium citrate	tr. oz. 13.
Water	
Sugar	tr. oz. 9.
Syrup enough to make	fl. oz. 16.

Mix the tincture of ferric chloride with the water and dissolve in the mixture the sodium citrate and the sugar, with the aid of heat. When cold add sufficient syrup to make 16 fluid ounces, and fla vor to suit.—Western Druggist,

MOTH EXTERMINATOR.

Patchonly	10 parts.
Valerian	5 parts.
Camphor	4 parts.
Napthalin	
Scotch snuff	2 parts.
Orris root	5 parts.
Sumbul root	5 parts.
Oil cassia	2 parts.
Oil cucalyptus	2 parts.

The patchouly, valerian, camphor, orris and sumbul roots are to be coarsely powdered and thoroughly mixed with the other substances.

The following veterinary remedies will prove useful since but few druggists know what to give in such cases :--

FOR HORSE COLIC.

Whiskey		ŧI.	ozs.
Tincture of assafeetida	1	fl,	07.
Sweet spirit of nitre	1	ťl.	07.
Sweet spirit of nitre Spirit of chloroform	1	fl.	0%
Mix.			

A GOOD HORSE BLISTER.

Powdered canthardies.		. 4	drams. I. drs.
Oil of origanum Oil turpentine Alcohol		-4 16	fi. drs.
Mix.	• • • •		11. 043.

-Meyers Bros.' Druggist.

POUDRE BLANC DE PERLEE

Bismuth subcarbonate																		mu		
Perfume	12.	6 (, I	•		•	•	•	•	•	•	•	 		 	eĥ	ar	ost	lie	ł
ahounor formula :	м.	đ,			•	•		•	•	•	•	•								

A cheaper formula :

Kice nour	
Light carbonate of magnesia	1.07.
French chalk	1
Perfamo	ų. s.

e*

A little Cologne water or white rose bouquet is as good as anything to perfume with.

LIGUID BLANC DE PERLE.

Oxide of bismuth	
Glycerine	I drins. –
Rose water Bay rum	07.8,
Rub down smooth in a motar.	

before using .-- British and Col. Druggist.

PILE SALVE.

The following makes a most excellent and soothing remedy, particularly valuable in painful and ulcerating piles:

, ur funntar and arcount. 9 h.	
Cocaine hydrochlorate 40	parts.
	parts.
	parts.
	parts.
Vaselin sufficient to make 1000	parts.

Mix. Label "Use a few minutes before and a few minutes after going to stool. -National Druggist.

EAU DE QUININE.

 Take quinine sulphate
 1 dram.

 Tincture cantharides
 10 drams.

 Clycerin
 75 drams.

 Alcohol
 500 drams.

 Tincture of rhatany
 20 drams.

 Spirit of lavender
 50 drams.

 Mix.
 20 drams.

PREPARATION OF KOUMIS.

The Drogisten Zeitung gives the follow ing: To a gallon of fresh milk, add 6 drams of yeast and 3 ounces of sugar, and let stand from ten to fifteen hours, when it may be strained and filled into strong bottles of suitable capacity. Cork the bottles and tie the corks well down and preserve. The temperature of the receptacle in which the bottles are preserved must not be higher than 20°C (68°F), or the bottles will burst.

SHAMPOOS.

CASTILIAN SHAMPOO JIJLY.

CASTRIAS SRAMOO JIAM.	
Castile scap, white Curd scap, powdered	oz. 4
Curd soap, powdered	·· · 2
Potassium carbonate	•• 1
Honey	·· 1
Perfume to suit.	
Make a homogeneous paste by with a sufficient quantity of wate	heatiı r.
SALICYLANT SHAMPOO.	

SAMULIMAL MUSICON		
Rosemary water	07.	15
French rose water	**	s
St. Thomas bay rum	**	6
Ammonium carbonatefl.	dr.	-1
Sodium carbonate	46	4
Salicylic acid	gr.	50
Prepare and use as the preced	liog	•

TONIC SUAMPOD.

10810 8089004	
Tineture quillaja	. 10
Eau de cologue "	-4
Glycerin "	3
Fluid extract pilocarpusfl. di	• +
Quinine sulphate gr.	30
Fresh orango flower water,	
enough to make	32

Dissolve the quinine in the cau de cologne and tincture of quillaja with the aid of heat, then add the remaining ingredients and tilter if necessary.

FLATE SHAMPOO,	
Hungary water	ff, oz, 46
St. Thomas bay runn	. 8
Tincturo quillaja	
Rosemary water	•• -4
Glycerin	
Ammonium bicarbonate	•• 1
Borax	·· i
Tincture canthandes.	fl. dr. i

To the rosemary water, in which has been dissolved the borax and ammonium salt, add the rest of the ingredients and mix thoroughly by agitation.

The hair is moistened with the liquid and rubbed vigorously to produce a copious lather.

AMMONIA E6G SILAMPOO

The following formulas are used largely by hairdressers.

Ammonia watei			
Colognewater .			** 3
Alcohol			fl. oz. 5
Water	.		. * 5
Whites of egg .		шлоу	as desired

The whites of egg (about two) are thoroughly beaten up previous to being mixed with the water and water of ammonia, the remaining ingredients are added in their order and the whole stirred briskly.

BORAN EGE SHAMPDO CR	F 1 18.	
Borax		
Glycerin	11. 07.	1
New England rum	**	15
Bay run	**	10
Bay run	. no.	2

Incorporate the borax in fine powder with the glycerine and add the bay rum and New England rum gradually and with constant stirring to the mixture. The previously well-beaten white of egg is added lastly, and the whole stirred thoroughly until an even mixture results. — Western Druggist.

Antikamnia.

This is a combination of elements belonging to the coal-tar group, and is an American product. It is a white crystalline powder, odorless, and has a slightly burning taste ; soluble in hot water and in diluted alcohol, but not in cold water. It acts as antipyretic, analgesic and anodyne. The importance attached to this drug, I think, is due to its anodyne and analgesic power, and the celerity with which it acts. As an antipyretic in fevers, it acts more slowly than antipyrin, but is not attended with as much depression of the eardine system and cyanosis. Whenever a sedative and an analgesic together is indicated, this remedy meets the demand. In severe headaches it is remedy par executioners C. A. JULIAN, M. D., Louisville Medica' College, in N. C. Med. Journal.

NEW OXIDE OF ADSENIC. Dr. Retgers is led to believe, as the result of experiments, that there exists an oxide of arsenic of the composition $As_{\sigma}O$.

Photographic Notes

Development.

F. T. DENNETT.

Development, in a photographic sense, means the art of bringing out and fixing the latent image in a plato which has received an exposure in the camera.

If a plate be examined after it has been exposed, it will be found impossible to detect that any change has taken place. There are several theories put forth as the actual change which does take when a plate is exposed, a very popular one being that of an electrical action being set up, and to that theory I myself lean. There are several developing agents in

There are several developing agents in use at the present day, the best known of which are pyrogallic acid, hydroquinone, and iron. Though the hydroquinone is comparatively new in the field, it has already found many admirers.

In both pyrogallic acid and hydroquinone developers (neither of which reducing agents alone would develop a plate satisfactorily), there is added an accelerator, such as carbonate of soda, potash, sodium hydrate (caustic soda), or ammonia.

It is also necessary to have a restrainer, such as bromide of ammonium, or bromido of potassium, without which we should find great difficulty in bringing a negative up to the printing density.

There is also another ingredient which is not absolutely necessary, namely, sulphite of soda. It acts slightly as a restrainer, but it is added to a developer to prevent the plate being stained. Many workers, and amoung them a considerable number of professionals, use little or no sulphite, preferring the printing quality of a yellow negative.

If the development be prolonged with a developer without sulphite, the stain is so bad at times as to make the printing very slow, but it can be readily removed in any ordinary clearing bath.

The following is a simple and efficient one :

Saturated solution of (common) alum 2 ozs. Hydrochloric acid1 oz.

Which bath may be used repeatedly until much discolored.

For the production of beautiful-looking negatives, lantern-slides, transparencies, opals, bromide paper prints, and enlargements, the iron or ferrous-oxalate developer is generally used, because of its nonstaining quality. Its drawback for negative work is the little chance i tgives of modifying it to correct over and under exposure. The following are the proportions:

Neutral oxlate of potash 10 ozs. Water (warm)
Water (warm)
Proto-sulphate of iron (ferrous sulphate
Citric acid 60 grs. Water 10 ozs. • Label "I" (iron).

The above solutions are used in the proportion, three parts of P to one part of I. Thus to develop a half-plate pour into the measure 14 oz. of J, being careful to remember to pour the iron into the potash, not vice rersa, otherwise the developer will be at once spoiled.

With a plate which has been correctly exposed, you may be sure of getting a clean, sparkling image with the iron developer, which may be used again and again until its strength is exhausted.

In case of under exposure, a thing not uncommon in England, where the light is very poor and instantaneous exposures are made, have at hand a solution of 20 grains of hyposulphite soda to 1 oz. of water, and to each ounce of the developer add from 10 to 20 drops. You have then one of the most powerful detail giving developers known, and you may rest assured that the full result of the exposure will be brought out. The negative can then be brought up to proper density by intensifying it with mercury and ammonia. If, on the other hand, you find the plate over-exposed and developing too quickly, have by you a solution of restrainer, 20 grs. of bromide of potassium to 1 oz. of water, and into each ounce of the developer put about { drm.

Negatives produced by iron development are crisp, sparkling, full of soft halftone, and of olive-green tinge, though they do not possess, to my way of thinking, the printing quality of the negative developed with the pyro ammonia developer.

The most generally used, and, in my humble opinion, the best developer for negative work is the pyro-ammonia developer. It is capable of modification to almost any extent. It is also very cheap, recommending itselfstrongly to the professionals, and all who desire to secure the best results at the lowest cost. Above all, it is a developer which gives a printing quality to a negative unequalled by any other mode of development.

Pyro may be used with almost any alkali, such as carbonate of soda (common washing soda), potash, caustic soda, or ammonia. The following will be found to be a thoroughly good working formula for a pyro-ammonia developer, which has given good results with every brand of plates with which I have used it.

Dissolve 4 ozs. of re-crystallised sulphite of soda in 12 ozs. of warm water, and when 'cold neutralise with citric acid, which is done by adding small doses of the citric acid until there is no change of color if a line be drawn upon neutral test paper : should the test paper turn blue, more acid must be added, but if red, too much acid has been used (which slows the developing). When cold, add 1 oz. of pyrogallic acid, and label "Pyro."

Bromide of potassium Water	1 oz.
LABEL "BROMIDE."	•
Ammonia (*880) Water	
LABEL "AMMONIA."	

To develop, use the above in the following proportions :---

Pyro, Bromide, Annuonia, Under-exposure, Idrm, Idrm, Idrm,

It is better, in making a developer, to use distilled or boiled water, as in ordinary tap water there is so much impurity, which causes the developer to deteriorate in quality.

The above quantities are sufficient to develop 100 half-plates.

The following simple formula is the one I generally use for instantaneous work :

Water	07.8,
Sulphite of soda	OZ.
Bromide of ammonium §	44
Ammonia	"

Using 1 drm. to the oz. of water, and dry pyro till sufficient density be obtained usually taking from $\frac{1}{2}$ gr. to 1 $\frac{1}{2}$ gr.

usually taking from $\frac{1}{2}$ gr. to $1\frac{1}{2}$ gr. With plates which will stand sodium hydrate (caustic soda) substitute 1 oz. for the 1-1 oz. ammonia. If development be continued for an exceptionally long time, the negative will be slightly stained and, therefore, of greater density, on account of its yellowness, than it appears by transmitted light.

A very clean and good developer is the pyro and potash, and I do not know of a better formula than that by Beach, as follows :---

PYRO SOLUTION.
Warm distilled water
WHEN COLD ADD
Sulphurous acid
Pyrogallis
POTASH SOLUTION.
Carbonate of potash
Sulphite of soda
Water

Dissolve the salts separately, and then mix. For normal developer take 1 drm. of pyro solution and make up to 2 ozs. with water, adding 20 minims of potash solution. For under-exposure use more of the potash solution, and for over exposure vice-

A thoroughly good bydroquinone developer is the following :--

(1.)		
Hydroquinone	160	grs.
Sulphite of soda	2	07.9.
Citrie acid	60	grs.
Bromide of potassium	15	- 14
Water (to make)	20	023.
(2.)		
Carbonate of potash	2	46
Ordinary washing soda	2	46
Water (to make)	20	44

Take 1 oz. of each solution, and add 3 ozs. of water for use. When the plate is sufficiently developed, it is washed for a few minutes, and fixed in a bath of

And when thoroughly fixed (all the whitish opacity removed), wash in running water for about one hour, and place in draining rack (out of the dust) to dry slowly.

The power to correct too much contrast and want of contrast is very great with the pyro developer. Take, for example, a portrait of a ludy with a dark, sallow skin and white dress. If developed with a normal developer in the ordinary man-

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"OLD TIMES" & "WHITE WHEAT."

ner, as though no great contrast existed, we should get a negative better suited to the dust-hole than the printing frame. The dress would be so dense as not to print at all, while the face would be much over-printed.

One way of correcting would be to slight ly over expose; that is to expose for the yellow skin, by which time the white dress would be much over-exposed, and, as every school boy knows, an over-exposed plate, or portion of same, develops thinly, so we see that by simple over exposing, the contrast to an extent is can celled.

A better way to correct is in develop ment thus: commence development with a rather weak developer, very weak indeed in pyro and bromide; and here let me say care is necessary, or $i \ge$ will result. Watch patiently, adding small doses of the accelerator till all the detail you require is obtained. The negative will then be thin all over, which will simply need to be strengthened up with a dose of pyro and bromide, so that by simply keeping back the pyro we can modify the contrast to almost any extent. One more way is by using a small stop in the lens, but for portraiture it is of no use for two reasons, firstly, that it gives too much detail to be artistic; secondly, that it makes the exposure too long.

To produce contrast we slightly under expose or develop quickly, by keeping, back the accelerator, and using a developer strong in pyro and bromide.

Take, for example, the portrait of a person with a red shin, yellow or black dress. If a full exposure be given, a flat result will be obtained, the person having the appearance of having been flattened into the background.

To correct the flatness and produce contrast, slightly under-expose, using a fairly large stop in the lens, and develop with the developer strong in pyro and bromide, using a fairdose of the accelerator at the last moment to bring out the details.

In speaking of the merits of various formulæ, we have a difficult subject in hand, as most, if not all, the makers of dry-plates issue a formula with them best suited for their development. Some of them advise a weak developer, while some advocate one strong in all its constituents. For my part I am in favor of a strong developer handled with care. I can speak from practical experience that the llford plates developed with the makers' formula will give results that leave nothing to be desired. I do not for one moment disparage the goods of other plate makers, but simply wish to say that I am able to obtain better negatives with the Ilfords, finding them easier to work and capable of bearing a stronger developer (one which contains caustic soda) without frilling or staining.

A simple arrangement I have found of use when developing very rapid plates is to cover the developing dish with a sheet of orange or ruby glass let into a cardboard lid, for any rapid plate, if exposed

for a sufficient length of time even to a ruby light, will be affected by it.

After the development has fairly commenced, a brighter nght may be used with safety. I find it best to work with all the light obtainable (that is safe), to be able to correctly estimate the density.

Makers of glass bottomed dishes speak loudly in their favor, but I have found it difficult to judge of the density owing to the darkening of the developer.

In conclusion, I must place pyroammonia as the best negative developer, and leave iron and hydroquinone (for the development of bromide papers, opals, hantern slides, etc.) to fight the battle, giving the preference to the iron develop er.—*Ph. Journal.*

Controtypes or Positives Direct in the Camera.

The plate is exposed in the camera and developed as usual, care being exercised, however, that it is not fogged. It should be then well washed till quite free from the developer. The following solutions are required:

Λ.	
Saturated solution of chrome a	am.
В.	
Borie acid 1.	i puts
Water 500	·
с.	
Solution A 20	**
" B 10	**
Water 1000	**
D.	
Potassium bichromate 25	"
Nitrie acid 10	41
Solution A 25	44
Water 1000	**
Е.	
Potassium hydrate 2	
" bromide 2	**
Water 1000	**

Place the developed and well-washed negative in solution D till the black image is quite converted into a red one; then wash well in three successive baths of solution C and soak in solution E till the red image disappears, and thoroughly wash. Expose the plate to diffused light for about 30 seconds, or to lamp or gaslight for about five to ten minutes, and then develop with a well-restrained eikonogon or prramidophenal developer. The idea is not new, but may be useful. -Signor Corsi in Bull. del Soc. fot. Ital.

PHOTOS THAT YIELD COLORS. - At the last meeting of the Paris Academy of Sciences some colored photographs of the spectrum on albumen and bichromated gelatin, by M. G. Lippman, were exhibited. It was stated that albumenised and gelatinized plates, soaked in bichromate of potash, may be employed for photograph ing in colors. They are used like silver salt plates, being placed so that the mer cury is in contact with the film. The colors will appear immediately after im mersion in water, which developes and also fixes the image. It disappears on drying, but reappears as soon as the plate is soaked. The colors are very brilliant,

and visible at all angles. Those of gelatin plates are brought out by simple breathing. The theory is analagous to that of silver plates, the maxima and minima of interference producing hygroscopic and non-hygroscopic layers with arying refractive indices.

AN EXTRAORDINARY LENS. When a spherical glass lens was found in one of the tombs of the Pharaohs, it was looked upon as, perhaps, the most wonderful lens in existence, though later investigations threw doubt upon the behef that the object had ever been used as a lens for any optical purpose. Be this as it may, we think that the palm will be carried off by Professor Dewar's wonderful lens, exhibited in his lecture on Liquid Atmospheric Air. It was composed of liquid oxygen enclosed in a spherical vacuum vessel. Its temperature was 200 below zero, a point at which, as we have previously shown, all chemical action, except that preduced by light upon a photographic plate, ceases. Yet, cold as this lens was, it was able to concentrate the rays from an electric are, permitting them to pass through cashy and ignite a piece of black paper held in their focus. Brit. Jour. of Photography.

EXLANGING FILMS. The Monitor publishes a process for enlarging photographic films without enlarging apparatus. The method is familiar enough in England, and depends upon the stretching of a film loosened by hydroflueric acid. The formula for the stretching solution is given as follows:

Hydrofluorie acid	 	. I pai	ı.
Citric acid			
Glycerine	 	1 "	
Acetic acid (glacial),	 	. 1	
Water	 	32	

All by weight. The unvarnished film haid in this solution gradually detaches itself from the plate, and enlarges itself at the same time. A final rinse in water while the film is transferred to a larger plate, concludes the operation.

To RECOVER FOGGED PLATES. --- Make a solution as follows : --

Chromie acid	60 gr.
Bromide of Potassium	60 gr.
	10 0%

And immerse the plates for five minutes. Afterward wash very thoroughly, and rear up to dry. Or instead of the above, make the following : -

Bighromate of Potash Hydrobromic Acid	2 dr.
- Water	10 oz.

If Hydrobronne cannot be obtained, use Hydrochloric Acid or a soluble Bromide. in the last case a few drops of Sulphurie Acid being added to the solution. Use as before.—Pacyfic Coast Phot.

FLUOREAL. - Fluoreal is a new developer containing sodium sulphite, hithia in the proportion of 6 parts per 1,000 and fluorescein, the function of the latter being to arrest any light waves of short wavelength that may have penetrated into the developing room. - *Photography Annual*.

Phenol sulphoricinoleate is a solution of 20 parts pure phenol.

Books & Magazines.

The Dispensatory of the United States of America, by Dr. Geo. B. Wood and Dr. Franklin Bache; seventeenth edition, with illustrations. Publishers, J. B. Lippin-cott Company, Philadelphia. We are in receipt of advance sheets of this publication, which, we are informed, is now about ready for general sale. The publishers have evidently spared no pains to make this edition of an invaluable text book quite "ap to date" in all the requirements for the study of pharmacy and its kindred subjects. The publication of a new U.S. Pharmacopaia has rendered necessary very many changes in the work which have been done with a completeness which must commend itself. The Metric System, the New Chemical Nomenclature, the Atomic Weights of Meyer and Seabert, together with changes in Botanic Nomenclature, all appear in the present edition.

A Practical Photography for Amateurs. --Crown S vo., eloth Price, 1s. Barchay & Sons, limited, publishers, 95 Farrington-st., London, England. This work is one that should be in the hands of every amateur photographer as well as the dealer in supplies. Full instructions are given in all branches of the art and an "appendix" contains a number of formulæ which to druggists who deal in photo supplies are alone worth many times the price of the books.

Current Topics.

The Chicago Magazine of Current Topics, the popular home magazine, is resplendent with interesting articles upon subjects of immediate interest to every thinking reader, by writers of world-wide reputation. The contents of the March number are The Wilson Bill, by Hon. Wm. E. Mason; After Mr. Gladstone-Who 1 by Charles Robinson; Medical Expert Testimony, by L. Harrison Mettler, A. M., M. D.; Civic Federation, Ada C. Sweet; Poem, "The Daily Creed," by Hon. Benj. S. Parker; Municipal politics, John M. Stahl; Recent Progress in Glacial Geology, by Henry B. Kummell; Scenes From an English Country Parish, by Lilian Sprat; Sketch of the Late Geo. W. Childs (illustrated), by J. O. Jackson. These, with other interesting articles, among which are short stories, poems, etc., by authors of national reputation. S0 solid reading pages. \$1.50 per year. Single copy, 15 cents.

"The Young Man in Business."

Edward Bok's successful article in the January Cosmopolitan on "The Young Man in Business" has been reprinted in a tasteful and handy booklet form at 10 cents by the Curtis Publishing Company, of Philadelphia. To this reprint Mr. Bok has added some 14 pages of editorial matter answering "Three Uncertain Young Men."

Scribner's Magazine.

Scribner's Magazine for March opens with the second article of Joel Chandler Harris on "The Sea Island Hurricans" this one dealing especially with the great relief work which is being conducted by Miss Clara Barton and the Red Cross Society. The distress in these islands is likely to increase until the first crop shall be gathered in the late Spring, so that the necessity is apt to be direct at a time when the public has, for the most part, lost interest in the catastrophe. Mr. Harris, in his tour for *Scribner's* Magazine through all these islands, has presented not only the distressing part of the catastrophe but the humorous side of it which the sea-island negro so plentifully furnishes. He has used the finest literary skill in depicting these strange islands and their picturesque inhabitants, so that, after reading the article, one feels that he has actually lived in new and curious surroundings. The striking illustrations by Daniel Smith, made from sketches on the spot, add to this impression of reality.

The Ladies' Home Journal.

The personality of a famous man can at times be brought delightfully close to us, and this is particularly true of the picture we get of Nathaniel Hawthorne in his youngest daughter's description of "My Father's Literary Method" in the March Ladies' Home Journal. Truly is the curtain that has so long bidden Hawthorne from view gently raised. Many mothers will have cause to thank Mrs. Burton Kingsland before she finishes her series of articles on the wisest training of "A Daughter at Sixteen," the first article appearing in this issue. The Rev. Lyman Abbott writes vigorously and critically of the different relations of a church to its choir, and Mrs. A. D. T. Whitney gives the second of her delightful "Friendly Letters to Girl Friends." The biography of the number consists of an interesting sketch, with portrait, of Mrs. Charles H. Parkhurst, and of an equally delightful one, with portrait, of President Tyler's daughter, who was at one time Mistress of the White House. Mr. Stockton carries "Pomona" still further in her travels abroad, and makes her adventures funnier with each letter. "My Literary Passions" continues to afford Mr, Howell's opportunity for expressing his estimate of books and their authors, while the editor discusses with much force three or four phases of a young man's life in the outer world. The cover of this March issue, typical of Phillips Brooks' doves, which always hovered round Trinity Church, and do still, the work of Henry Sandam, is most artistic and makes this magazine a thing of real beauty. Published by The Curtis Pub-lishing Company of Philadelphia, for ten cents per number and one dollar per year.

The Cosmopolitan Magazine.

Who are the most famous writers and artists of both continents? The Cosmopolitan Magazine is endeavoring to answer this inquiry by printing a list from month to month—in its contents pages. This magazine claims that notwithstanding its extraordinary reduction in price, it is bringing the most famous writers and artists of Europe and America to interest

its readers, and in proof of this claim, submits the following list of contributors for the five months ending with February : Valdes, Howells, Paul Heyse, Francisque Sarcey, Robert Grant, John J. Ingalis, Lyman Abbott, Frederick Masson, Agues Repplier, J. G. Whittier, (posthumous,) Walter Besant, Mark Twain, St. George Mivart, Paul Bourget, Louise Chandler Moulton, Flammarion, Tissandier, F. Dempster Sherman, Adam Badeau, Capt. Cing, Arthur Sherburne Hardy, Georg Do Maupassant, Sir Edwin Ebers, Arnold, Spielhagen, Andrew Lang, Berthelot, H. H. Boyesen, Hopkinson Smith, Lyman J. Gage, Dan'l C. Gilman, Franz Von Lenbeach, Thomas A. Janvier. And for artists who have illustrated during the same time : Vierge, Reinhart, Marold, F. D. Small, Dan Beard, Josie Cabrinety, Oliver Herford, Remington, Hamilton Gibson, Otto Bacher, H. S. Mowbray, Otto Guillonnet, F. G. Attwood, Hopkinson Smith, Geo. W. Edwards, Paul de Longpre, Habert Dys. F. H. Schell. How this is done for \$1.50 a year, the editors of The Cosmopolitan alone know.

Frank Lestic's Popular Monthly.

The leading article in Frank Leslie's Popular Monthly for March is a picturesque account of the four leading "European Parliaments" -- those of Great Britain, France, Germany and Italy-by that experienced observer and graphic writer, Frederick S. Daniel. The illustrations accompanying this paper are as timely and up-to-date as the text, including views of Gladstone in the House of Commons, the scene in the French Chamber of Deputies on the occasion of the explosion of Vaillant's bomb, the stormy session at Monte Citorio at the time of the recent Italian Cabinet crisis, and the projected new palace of the Reichstag at Berlin. J. William Fosdick illustrates, with a series of elaborate drawings, his own entertaining descriptions of "An Artist's Winter at Fontainebleau." Other notable illustrated articles are "Tasmania," by E. Trow-bridge; "Fort Hamilton," by Don C. Scitz; "Horrors of Capital Punishment," by W. H. Garrison ; "How to Get Married, though in France," by Dr. B. Sherwood Dunn ; "A True Eskimo Romance," by Dr. J. M. Mills, Surgeon of the Peary Relief Expedition; and an appreciative review of the life and work of the late Professor Tyndall, by Henry Tyrrell. A new serial story, entitled "The Silver Shafts," by Frances Swann Williams, begins in this number. There is also, amongst the complete short stories, a peculiarly striking one by Maley Bain-bridge Crist, called "The Woman's Story of Tolstoi's 'Kreutzer Sonata.'"

GLYCENIN Suppositories may be prepared from 10 parts of glycerin, 5 parts of water, and $\frac{1}{2}$ part of gelatin. When properly prepared this mixture may be poured into moulds. As soon as hard the suppositories should be removed and be dipped into melted wax and cacoa butter, which gives them a durable covering.

Special Circular to the Trade.

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The attention of Druggists and others who may be interested in the articles advertised in this journal, is called to the STREIAL CONSIDERATION of the Business Notices.

How to Push Your Business.

To do business in times of close competition it is necessary to keep yourself and your business before the public, and one of the best ways of doing so is through somespecialanddistinctive medium of your own. Such a medium is Davy's Advertiser which is furnished to druggists with their own advertisements and special notices as coming direct from themselves. See advt. and write the Canadian agents, mentioning this paper.

A Long Farewell to the Pill.

Such is the heading of a descriptive pamphlet issued by Utard & Co., advertising their Cachets, a most pleasant and desirable form of administering medicines in powder form, and one which promises to be largely used by all first-class pharmacists. The Canadian Specialty Co., of 3S Front st. East., Toronto, have been appointed sole agents in Canada for these goods. See full page advt. showing descriptive cuts of cachets and apparatus for filling, etc.

Glasscine Labels.

Lansing & Wood have established an agency in Windsor, Ont., for their patent Glasscine Labels. See advt. opposite page 2 of this issue.

Toothache Gum.

Have you a stock of Gibbon's Toothache Gum? If not, send to your jobber for a 3 dozen lot and get an automatic easel sign and stock-holder combined.

Dodd's Kidney Pills,

The Dodd Medicine Co., of Toronto, will supply advtg. matter for their preparations to any druggist sending an application.

Fennymyal Tea.

Slocum's Pennyroyal Tea, which has been but a short time on the market, has already secured a large sale, and the prospects are that it will be one of the most popular of this class of proprietary remedics. Have you read the advt.? See it.

Death of Mr. A. W. Ball.

The death of Mr. A. W. Ball at Denver, Colorado, on the 13th January, removes from the register of the Ontario College of Pharmacy a young man of bright promise, genial disposition and strict integrity of principle. With all, who had the pleasure of his acquaintance, he was personally popular. His temperament was of that decisive character which always lends an impression of force and energy; and which, when accompanied by natural generous impulse, inspires confidence, respect and trae regard. For a period of five or six years past he battled against physical infirmity; and, with a determination which knew no yield, he didn't give in until advised about six months ago to seek a southern clime in the hope that a tendency to consumption might be averted. Accompanied by his dovoted wife he removed to Denver, where, after a sojourn of five months, he peacefully sank to rest. His remains were brought to Kingston by his wife for interment in the family burial plot at Cataraqui.

Mr. Ball entered the drug business as an apprentice with Mr. A. Leach, of Millbrook, in 1874, remaining with him afterwards until he graduated in the spring term of 1885. In the same year he purchased the drug business of Mr. G. A. Davlin, at 1091, Queen-st. west, in the city of Toronto, and conducted it for three or four years with marked success. In 1888, he was appointed to succeed Mr. J. E. Kennedy as examiner in dispensing for the Council of the Ontario College of Pharmacy. Shortly after failing health induced him to sell out to Mr. O. F. Botsford, and he travelled for a time representing Messrs. Lynnan, Knox & Co., Mont-real. After regaining his health somewhat he opened a new business at West Toronto Junction, and, a year or two later, disposed of it for the same reason as before. For a time he engaged with Messrs. Hooper & Co. as manager until failing health induced him to relinquish that position also. At a later period he became manager of the Gladstone Pharmacy and only gave that up upon being advised to go South in the hope of recovery.

His devotion to his family was a marked characteristic of his life, and it is un derstood that insurance and bequests willed to him leave them in comfortable circumstances. He married Georgins A., daughter of James Reid, Esq., Kingston, in 1886, and she, with their two sons, still survives him.

A Substitute for Olive Oil.

The United Consul at Stuttgart reports that on account of the great expense and difficulty in procuring pure onve oil for table purposes, there have been many attempts made in Germany to produce from other substances than the olive, an oil which, having all the qualities that recommend olive oil, could be sold at a lower price. In Southern Germany, for some years past, oil has been produced from the beech-nut; it has given great satisfaction, but has not come into general use, because the production has been small, and the oil has never been pushed on the market. One reason why more has not been done in the production of beech nut oil has been the great scarcity of the nut in certain years. The beechnut contains but 22.77 per cent. of oil, but when the nuts are plentiful, the case with which they can be gathered, the fact that there is no other expense, except

the pressing, and the good prices that have been received for the oil, have made the production of the oil very profitable It is only of late that the seeds of the Linden tree have been used for the production of the oil. According to the report of Dr. C. Muller to the German Botanical Society, this oil has a number of excellent qualities, which appear to make it certain that the seed of the Lin den treo will hereafter be considered one of the principal sources for obtaining table oils. The Linden tree is a certain bearer, so that a large quantity of seeds may be counted upon each autumn. It is maintained that the oil has a peculiarly fine flavor, free from all bitter or aromatic taste, and that it has the appearance of olive oil. It belongs also to the oils which do not evaporate. Oil made from Linden seed will never become rancid. It has no tency to oxygenate. It will stand a great degree of cold without freezing, as Dr. Muller exposed it to 3 below zero with out noticing any change. Chemist and Druggist

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WANTED By a graduate of the O. C. P., a situation as Assistant or Manager, eight years' experience, good references, Ad dress-"Duragist," Stayner, Ont.

MANAGER A graduate of the O.C.P. who has had several years experience as manager of different stores, wishes to secure a similar position. Is willing to take a share in the business. Satisfactory references. Address Box 55, CANADIAN DRUGGET, Strathroy, Ont.

SITUATION WANTED As assistant, by a young man with nearly two and a half years' city experience. Goad dispenser ; best of references. Address—"W. W. G." Box 97, Brantford, Ont.

WANTED.

DRUG BUSINESS WANTED, preferably in Western Ontario. Give all necessary particulars, Address H. E. LANNIN, Box S6, Beeton, Ont.

WANTED-Soda Fountain in good running order. Give full description and price, W. A. JONES, 758 Bathurst St., Toronto,

FOR SALE.

FOR SALE Arctic Fountain (S syrups) also Generator and two Copper Cylinders, all in prime condition and nearly as good as new, A snap for eash. STOTT & JURT, Bowmanville, Oat.

FOR SALE - Small Drug Stock, Fancy Goods and Stationery, in new south-western town. Good chance for single man. Terms cash. Box 45, Estevan, N. W. T

BUSINESS CHANGE - A splendid opportunity for a young druggist whose expenses will be light. For sale an old estabished drug business in a thriving villege in the County of Middlesex, on the main line of the G. T. R. Store and dwelling ex-ellent. Stock small, clean and well selected. Expenses light, and business axtisfactory and practically all cash. Reasons for selling failing he dth and a desire for retirement. Present proprietor owns both store and dwelling, and will make terms right to suitable person. For further information apply to W. MURCHISON, 1418 Queen St. W., Toronto.

Estimation of Uric Acid.

The estimation of uric acid in urine is not an easy task, and good methods for it are always welcome. An accurate and fairly simple process was recently communicated to the Royal Society by F. G. Hopkins, B Sc. of Guy's Hospital, which depended on the complete insolubility of the uric acid in a saturated solution of ammonium chloride. Messieurs Arthaud and Butte have just published the following method, involving the use of hyposulhite of copper. The process was brought out some little while ago, but improvements have been effected in it, so that it is now as follows: 100 grammes of the urine are taken, and carbonate of soda added to precipitate the phosphates and to dissolve any precipitated uricacid. It is best to operate with warm solutions. Half of the filtered liquid is taken for the estimation. The following two solutions are prepared :

For the estimation, 2 parts of solution A are mixed with S parts of B, which gives a solution containing a known quantity of copper hyposulphite, of which 10 cc. precipitate exactly 2 centigrammes of uric acid. To effect the precipitation 50 cc. of the filtered urine are titrated gradually with the copper solution. To determine the end reaction, it is necessary to filter a few drops of the mixed liquids until the point arrives when the filtrate gives no precipitate with more copper solution. It is also important to see that no excess of copper has been added. The calculation is then simple.—*Repertoire*.

Aluminum.

Aluminum, when reduced to powder and mixed with a solution in water of gum lac, gives a metallic paint which covers well and may be shaded with aniline colors dissolved in water. The solution of gum-lac is made by bringing to boiling point a mixture of gum-lac and borax and an alkali, such as soda or ammonia. The solution must contain at least from 15 to 20 per cent. of gum-lac. Aniline colors are added to produce the shade desired, and aluminum is added in sufficient quantity to produce a paint sufficiently fluid for application with a brush. The color is brilliant, very durable and impermeable, and may be applied to metals, paper, wood and woven materials. It may be rendered supple by the addition of a small quantity of glycerine.



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

Your Orders Solicited.

IMPORTERS,

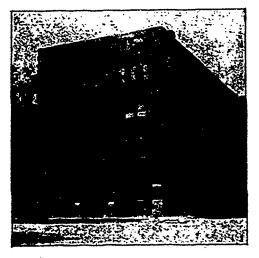
(DETROIT, MICH

WINDSOR, ONT.

London. - Ontario.

Jas. A. Kennedy & Co.

ESTABLISHED } Seely, The American Perfumer.

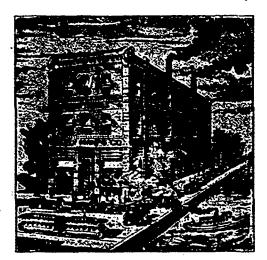


OUR AMERICAN LABORATORY.

List of Jobbers who handle our

Celebrated Perfumes :

Lyman, Knox & Co. Lyman Bros, & Co. Lyman, Knox & Co., Montreal. J. Winer & Co., Hamilton. J. A. Konnedy & Co., London. H. P. Baird, Woodstock, N. B. T. B. Barker & Sons, S. McDiarmid, Brown & Webb, Simson Bros, & Co. Halifax, N. S. Bole, Wynne & Co., Winnipeg. W. Brunet & Co., Quebec. Langley & Co., Victoria, B. C.



OUR CANADIAN LABORATORY.

Should you need an assortment of Seely's Perfumes before our representative calls upon you, mail your order to one of the above mentioned firms, or send direct to us, and they will receive prompt attention. Thanking our friends for past favors, and wishing them all a prosperous New Year, we remain, Yours very truly,

SEELY MANUFACTURING CO.



Extra Purified

EPSOM SALTS

Specially Prepared for Druggists.

FREE FROM MOISTURE.

FREE FROM DIRT.

The Finest Quality Made.

THESE SALTS CAN BE OBTAINED FROM

JAMES A. KENNEDY & CO., London. -1-

J. WINER & CO., - - Hamilton. -:-

H. SKINNER & CO., - Kingston.

AND OTHER LEADING HOUSES.

E. BRAMWELL & SON., St. Helens, Lancashire, Eng.

Manufacturers of :--Hyposulphite of Soda, Sulphite of Soda, Glauber Salts, and Sulphate of Potash.

Canadian Druggist Prices Current:

CORRECTED TO MARCH 10th, 1894.

						-		
The quotations given represent a	verage	prices	CASTOR, Fibre, lb	16 00	17 00	Bleached, 1b.	45	50
for quantities usually purchase	ed by	Retail	CHALK, French, powdered, lb.	10	12	Spruce, true, lb.	30	35
Dealers. Larger parcels may be	e obtai	ned at	Precip., see Calcium, Ib	iŏ	12	Tragacanth, flake, 1st, lb.	75	80
lower figures, but quantities	smalle	r than	Prepared, 1b	5	G	Powdered, lb	1 10	1 15
those named will command an a			CHARCOAL, Animal, powd., Ib	- Ă	5	Sorts, lb	45	75
ALCOHOL, gal		84 25	Willow, powdered, lb	20	25	Thus, Ib.	8	10
		2 00		25	30	Terran Althan 11.	27	30
Methyl, gal.			CLOVE, 1b.	30		HERB, Althea, lb		
ALLSPICE, Ib	13	15	Powdered, lb.,.		35	Bitterwort, 1b	27	30
Powdered, lb	15	17	COCHINEAL, Honduras, Ib	40	45	Burdock, Ib	16	18
ALOIN, OZ	40	45	Collopios, 16	75	\$9	Boneset, ozs, Ib.	15	17
ANODYNE, Hoffman's bot., lbs	50	55	Cantharidal, lb	2 50	2 75	Catnip, ozs, 1b.	17	20
Aurowroor, Bermuda, 15	45	50	CONFECTION, Schna, lb	25	30	Chiretta, lb	25	30
St. Vincent, Ib	15	18	Creosote, Wood, Ib	2 00	250	Coltsfoot, lb	20	38
ALSAN, Fir, lb	45	50	CUTTLEFISH BONE, Ib	35	40	Feverfew, ozs, lb	53	55
Copaiba, lb	65	75	DEXTRINE, Ib	10	12	Grindelia robusta, lb	45	50
Peru, 16	2 50	2.75	Dover's Powder, 16	1 50	1 60	Hoarhound, ozs., lb	17	20
Tolu, can or less, lb	75	80	ERGOT, Spanish, lb	1 00	1 10	Jaborandi, lb.	45	50
BARK, Barberry, lb	22	25	Powdered, lb	1 15	1 30	Lemon Balm, lb	38	40
Bayberry, lb	15	18	ERGOTIN, Keith's, oz	2 00	2 10	Liverwort, German, Ib	38	40
Buckthorn, lb	15	17	EXTRACT, Logwood, bulk, Ib	13	- 14	Lobelia, ozs., lb	15	20
Canella, lb	15	17	Pounds, Ib	14	17	Motherwort, ozs., lb	20	22
Cascara Sagrada	25	30	FLOWERS, Arnica, Ib	15	20	Mullein, German, lb	17	20
Cascarilla, select, lb	18	20	Calendula, lb	55	60	Pennyroyal, ozs., lb.	18	20
Cassia, in mats, lb	iš	20	Chamomile, Roman, Ib	30	35	Peppermint, ozs., lb.	21	25
Cinchona, red, lb.	GŎ	65	German, lb	40	45	Rue, ozs., 1b	50	35
Powdered, lb	65	70	Elder, lb	20	22	Sage, Ozs., 1b	18	20
Yellow, lb.	35	40	Lavender, lb	12	15	Spearmint, Ib.	21	25
Pale, 1b.	40	45	Rose, red, French, lb	1 60	2 00	Thyme, ozs., lb.	īs	$\tilde{20}$
Elm, selected, lb.	16	18	Rosemary, Ib.	25	30	Tansy, ozs., lb	15	18
Ground, lb	17	20	Saffron, American, lb.	75	SO	Wormword, oz	20	22
Powdered, lh.	20	28	Spanish, Val'a, oz	1 00	1 25	Lerba Santa, Ib	38	44
Hemlock, crushed, lb.	18	20	GELATISE, Cooper's lb	1 20	1 25	Honey. lb	13	15
Oak, white, crushed, lb	15	Ĩž	French, white, 1b	- 40	50	Hors, fresh, lb	20	25
Orange peel, bitter, lb	15	16	GLYCERINE, Ib.	161	1.5	INDIGO, Madras, 1b	75	80
Prickly ash, lb	35	40	GUARANA.	3 00	3 25	INSECT POWDER, Ib	25	28
Sassafras, lb.	15	16	Powdered, lb.	3 25	3 50	ISINGLASS, Brazil, Ib	2 00	2 10
Soap (quillaya), lb	13	15	GUM ALOPS, Cape, 16	18	20	Russian, true, lb	6 00	6 50
Wild cherry, lb.	13	15	Barbadoes, lb.	30	5 0	LEAF, Acouite, Ile	25	· 30
BRANS, Calabar, lb.	45	50	Socotrine, lb	65	70	Bay, 1b	18	20
Tonka, lb	1 50	2 75	Assafætida, lb	25	28	Belladonna, Ib.	25	30
Vanilla, lb.	7 50	\$ 50	Arabic, 1st, lb.	65	70	Buchu, long, lb	50	.50 55
BERRIES, Cubch, sifted, lb	75	80	Powdered, lb.	75	85	Short. Ib	22	25
powdered, lb	85	90	Sifted sorts, lb	40	45	Coca, 1b	55	60
Juniper, lb	10	12	Sorts, li.	25	30	Digitalis, 1b.	25	30
Ground, lb	12	14	Benzoin, lb	50	1 00	Encelyptus, Ib	īs	
Prickly ash, lb.	40	45	Catechu, Black, Ib.		20	Hyoseyamus	25	20
Bubs, Balm of Gilcal, 10		60	Gamboge, powdered, lb		1 35	Matico, ib	70	30 75
Cassia, 1b	25	30	Guniac, Ib.	75	1 00	Senna, Alexandria, Ib	25	
BUTTER, Cacac, lb.	75		Powdered, lb	95	1 20	Tinnevelly, Ib	15	30
			Kino, true, lb.	45	1 20	Stramonium, Ib		25
CAMPHOR, Ib	65 2 00	2 10	Warmh 11.	45	4 S	Tea Dei B	20	25
CANTHARIDES, Russian, lb Powdered, lb	2 10	2 20	Myrrh, lb Powdcred, lb	55		Uva Ursi, lb LEEGUTS, Swedish, doz	15	18
	2 10	2 20	Opium, 1b		5 25	Liconice, Solazi	1 00	1 10
CAPSICON, Ib	30	.10 35	Powdered, lb	6 50	5 25 6 75	Pignatelli.	45 35	50
Powdered, lb	16	18	Scammony, pure Resin, 15	19 60	13 00	Gramo		40
CARBON, Bisulphide, lb	40	50		12 80	45	Grasso Y & S-Sticks, 6 to 1 lb., per lb	30	35
CARMINE, No. 40, oz	40	00	Shellac, lb	-90	70	A de como de construito de la 10-1 foct 10	27	30

LYMAN BROS. & CO., Toronto.

CANADIAN DRUGGIST.

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1.1.0	D		
	-Purity, 100 sticks in box Purity, 200 sticks in box	75 1 50	75 150
**	Acmo Pellets, 5 lb. tins	2 00	2 00
**	Lozenges, 5 lb. tins Tar, Licorice & Tolu, 5	1 50	1 75
	lb. tins	2 00	2 00
	07	30	35
	им, lb	70 1 20	80 1 25
MANNA.	lb. .	1 60	1 75
Moss, Ice	land, lb	9	10
TUSE, To	lb aquin, oz	9 46 00	10 50 00
NUTUALLA	s, 115	21	25
Powder	ed, lb	$\begin{array}{c} 25\\ 1 & 00 \end{array}$	30 1 10
VUX VON	исл. lb	10	1 10
Powder	исл, lb	25	27
JAKUM, I	lb , Merc.,lb ½ and ½	12 70	15 75
Citrine,	16	45	50
ARALDEI	IVDE, oz Jack, Ib	15	18
	ed, lb	$\frac{22}{25}$	25 30
чтсн, bl	ack, 1b	-3	4
Bergun	ly, true, lb Calcined, bbl cash	10	12
Adhesiv	c, yd	$225 \\ 12$	$\frac{3}{13}$
Bellado	na, lb un Comp., lb	65	70
Galbant	un Comp., lb	S0 95	85 20
icau, fi orry He	ADS, per 100	$\frac{25}{100}$	30 1 10
losin, Co	mmon, Ib	21	3
White,	lb	31	4
OCHELLE	White, oz	25 25	30 28
оот, Асс	onite, lb cut, lb	22	25
Althea,	cut, lb	30 25	35 30
	b	15	16
Bitter, 1	Ь	27	30
Blackbe	rry, lb.	15 18	18 20
Calamus	sliced, white, lb	20	25
Canada	, sliced, white, lb Snake, lb	30	35
• onosh,	Black, lb	15 40	20 45
Columb), 1b	20	22
Powde	ered, 16	25	30
Contstoo	t. Ib	$\frac{38}{20}$	40 25
Curcum	, powdered, lb	13	14
Dandelio	on, Ib	15	18
Galanca	ane, 1b	15 15	10 18
Gelsemi	um, 16	22	25
Gentian	or Genitan, lb d, lb	.9	10
Powde	a, 10	10 13	12 15
Ginger,	African, lb	18	20
Po., I	b ca, blehd., lb	20	22
Po	1b	27 30	30 35
Ginseng.	. lb	3 00	3 25
Golden a	Seal, 1b	75 90	80 95
Hellebor	e, White, powd., lb.	50 12	95 15
Indian I	lemp	18	30
Inccae,	lb red, lb	2 65 2 S0	2 75 3 00
		2 30	-3 UU 60
Powde	red lb	60	65
Kava Ka	wa, lb	40 12	90 15
Powde	lb red, lb	12 13	15 15
Mandrak	c, lb	13	18
Masterw	ort, 16	16	40
	orentine, lb	30 40	35 45
Parcira	Brava, true, lb	40	45
Pink, lb. Pareles	16	73 30	80 35
Pleurisy,	16	30 20	35 25
Poke, It		15	18
Queen of	the Meadow, lb	18	20 30
Rhubarb	, 16 , 16	20 75	30 250
Sarsaimr	ma, Rond, Ib	40	45
Cut, lt		50 55	55
Senega, 1 Squill. 11		55 13	-65 15
Stillingia	, lb	22	25
Bounda	red, 1b	25	27

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Unicorn, lb. Valerian, English, lb true	38	40
Virginia Snake, Ib	20 40	25 45
Yellow Dock, lb	$\begin{array}{c}15\\2\ 25\end{array}$	18
Rum, Bay, gal. Essence, Ib.	3 00	2 50 3 25
SACOHARIN, 02	$\begin{array}{c}1&25\\&13\end{array}$	1 50 15
Essence, Ib. SACCHARIN, OZ SKED, Anise, Italian, sifted, lb. Star, lb. Burdock, lb.	35	40
Canal Y. Dat Of 1055, 10	30 6	35 7
Caraway, 1b Cardamom, 1b	$\begin{array}{c} 10 \\ 1 \ 25 \end{array}$	$\begin{array}{c} 13 \\ 1 50 \end{array}$
Celery	30	35
Colchicum Coriander, lb	75 10	80 12
Cumin, 16 Fennel, 16	15	20
Fenngreek, powdered, lb	15 7	17 9
Flax, cleaned, lb Ground, lb	3 <u>1</u> 4	4 5
Hemp, 1b	6	61
Mustard, white, lb Powdered, lb	11 15	$\frac{12}{20}$
Pumpkin,	25	30
Quince, lb Rape, lb	65 8	70 9
Strophanthus, oz	$\frac{50}{22}$	55 25
SEIDLITZ MANTURE, ID.	25	30
SOAP, Castile, Mottled, pure, lb White, Conti's, lb	10 15	12 16
Powdered, Ib	25	35
Green (Sapo Viridis), 1b SPERMACETI, 1b	$\frac{12}{50}$	25 55
TURPENTINE, Cluan, oz	75 10	\$0 - 12
Venice, lb Wax, White, lb	50	75
Yellow	$\frac{40}{5}$	45 6
Quassia chips, lb Red Saunders, ground, lb Santal, ground, lb	10	12
Santal, ground, lb	5 5	6 6
CHEMICALS. Acid, Acetic, 1b	12	13
Glacial, lb	45	50
Benzoie, English, oz German, oz	20 10	$\frac{25}{12}$
Borneic, Ib.	20	25
Borneic, İb. Carbolic Crystals, Ib. Calvert's No. 1, Ib.	30 2 10	38 2 15
No. 2, lb	1 35 65	1 40 70
Gallic, oz	-10	12
Hydrobromic, diluted, 1b Hydrocyanic, diluted, 1 oz. hot-	30	35
tles doz Lactic, concentrated, oz	$150 \\ 22$	$1 60 \\ 25$
Muriatic, ID	3	5
Chem, pure, lb Nitric, lb	18 103	20 13
Chem, pure, lb	25	30
Oleic, purified, lb Oxalic, lb	$\frac{75}{12}$	80 13
Phosphoric, glacial, lb Dilute, 1b	$\begin{array}{c}1 & 00\\ & 13\end{array}$	1 10 17
Pyrogallic, oz. Salicylic, white, lb.	35	38
Sulphurie, carboy, lb.	1 80 21	2 00 23
Bottles, 1b Chem. pure, 1b.	5	Ğ
Tannic, lb.	18 90	20 1 10
Tannic, lb. Tartaric, powdered, lb AGETANIAD, lb	40 90	45 1 00
ACONITINE, grain	4	5
ALUM, Cryst., Ib Powdered, Ib	$1\frac{1}{4}$	3 4
Powdered, lb AMMONIA, Liquor, lb. 880	S2	10
AMMONIUM, Bromide, lb Carbonate, lb	65 12	75 13
Indide, oz Nitrate, crystals, lb	35 40	40 45
Muriate, Ib	12	-16
Valerianate, oz	55 16	60 18
ANTINERVIN, 0Z	85	00
ANTHYRIN OZ ARISTOL, OZ ARSKNIC, Donovan's sol., lb	$1 \ 00 \\ 2 \ 00$	1 10 2 25
ARSENIC, Donovan's sol., lb Fowler's, sol., lb	25 13	30 15
Icdide, oz	35	40
White, lb. ATROPINE, Sulp., in $\frac{1}{2}$ ozs., oz	6 700	7 800

	Deserves Assessed attacks and		
	BISMUTH, Ammonia-citrate, oz	· 40	45
	Salicylate, oz Sulcarbonate, lb,	30	35
	Subcarbonate, Ib,	2 75	3 00
	Subnitrate, Ib	250	260
	Вовах, 16	9	10
	Powdered, Ib	10	ĩ
		8	13
	BROMINE, OZ.		
	CADMIUM, Bromido, oz	20	25
	Iodide, oz	45	50
	CALCIUM, Hypophosphite, Ib	1 50	1 60
	Iodide, oz.	95	1 00
	Iodide, oz Phosphate, precip., lb	35	38
	Sublide		
	Sulphide, oz	5	.6
1	CERIUM, Oxalate, oz	10	12
	CHINOIDINE, OZ	15	18
	CILLORAL, Hydrate, lb	1 00	1 10
	Croton, oz	75	80
1	Силоворовм, 16	65	2 00
1	Citizenoronal, Ibiliti and	25	30
	CINCHONINE, sulphate, oz		
	CINCHONIDINE, Sulph., oz	15	20
	COCAINE, Mur., oz	6 50	8 50
-	COPPER, Sulph. (Blue Vitrol) lb.	7	8
	Iodide, oz	65	70
4	COPPERAS, 16	ĩ	3
	Emilia Acotto Ile		80
•	ETHER, Acetic, lb	75	
	Sulphuric, 16	40	50
	EXALGINE, OZ	1 00	1 10
]	HYOSCYAMINE, Sulp., crystals, gr.	25	30
	IODINE, 1b	5 00	5 50
	lodoform, 1b.	6-00	7 00
-	lobol, oz	1 30	
1	Inon, by Hydrogen	1 00	1 10
	Carbonate, Precip., lb Sacch., lb	15	16
	Saech., Ib	35	40
	Chloride, lb	45	55
	Sol II	13	16
	Sol., lh. Citrate, U. S. P., lb		
	Ourace, U. S. F., 10	90	1 00
	And Ammon., Ib	75	80
	And Quinine, lb	1 50	3 00
	Quin. and Stry,. oz	18	30
	And Strychnine, oz	13	15
	Dialyzed, Solution, Ib	50	55
	Ferrocyanide, lb	55	60
	Hypophosphites, oz	20	25
	Iodide, oz	40	45
		40	45
	Syrup, lb.		_
	Lactate, oz Pernitrate, solution, lb	.5	.6
	Fernitrate, solution, lb	15	16
	Phosphate scales, Ib	1 25	1 30
	Sulphate, pure, lb	- 7	9
	Number of a li	ŝ	10
	Exsiccated, lb.		
	And Potass. Tartrate, Ib	80	85
	And Ammon. Tartrate, lb	85	90
1	LEAD, Acctato, white, lb	13	15
	Carbonate, 10,	7	8
	Iodide, oz	35	40
	Rad 11	7	
	Red, 1b LIME, Chlorinated, bulk, 1b		9
1	IME, Uniormated, balk, Ib	4	5
	In packages, Ib	6	7
I	ATHIUM, Broinide, oz	40	45
	Carbonate, oz	30 ·	35
		25	30
	Citrate, oz		
	Iodide, oz	- 50	55
~	Salicylate, oz	35	40
3	AGNESIUM, Calc., lb Carbonate, lb	55	60
	Carbonate, 1b	18	20
	Citrate, gran., lb.	40	45
	Sulph. (Epsom salt), lb	13	3
,	Comparison Diale Action 12		
-	IANGANESE, Black Oxide, 1b	5	7
ğ	MENTHOL, OZ.	45	50
J	AESTHOL, OZ.	90	95
	Ammon (White Precip.),	1 25	1 30
	Chloride, Corrosive, lb	1 00	1 10
	Calomel, lb	i 15	1 20
	Calomel, lb. With Chalk, lb	60	65
	T- 121. Date		
	10dude, 17010, 02	35	40
	Bin., oz	25	- 30
	Oxide, Red. lb	1 30	1 35
	Pill (Blue Mass), Ib	70	75
٦	IT'S SUCAR now does 11.	33	45
1	ILK SUGAR, powdered, lb		
D	IORPHINE, Acctate, oz	2 00	2 10
	Muriate, oz.	2 00	· 2 10
	Sulphate. oz	2 00	2 00
p	KISIN, Saccharated, oz	35	40
ī	HESTERINE OF	40	45
T	HENACETINE, 07		
ŗ	PILOCARPINE, Muriate, grain	5	1 10
ţ	IPERIN, OZ.	1 00	1 10
P	nosphorus, lb	90	1 10
P	OTASSA, Caustic, white, lb	55	60
	OTASSIUM, Acetate, 10	35	40
\mathbf{F}	Bicarbonate II	15	17
F		10	
F	Richmonate 24	3.4	16
r	Bicarbonate, lb Bichromate, lb Bitrat (Cream Tart.), lb (14 25	15 30

The Decline in the Gum-Arabic Trade and its Lesson.

There has long been a saying to the effect that no man was absolutely indispensable, no matter how much he might appear so. There never was a man yet who understood a business so well, but that, if necessity arose, some one else could be gotten to fill his place satisfactorily, and we may add, that as a usual thing, when emergencies do arise by which such changes are rendered necessary, they result in permanent benefits that could have accrued in no other way. As with men, so with matter, and a striking instance of the truth of the principle is furnished in the case of the gum-arabic trade during the last thirteen years. The Pharmacentische Post of a recent date, has the following:

"From the year 1875 to 1880, the normal prices of gum-arabic ranged, in Trieste, according to quality, from 65 to 75 Austrian florins per 100 kilograms (200 pounds), the Gehziri gum bringing from 45 to 55 florins. The immense arrivals of gum from the Soudan, in the beginning of 1882, ran prices down to 38-42 florins for the better class, and from 26 to 30 florins for Gehziri gums.

"The Egyptian insurrection again brought these prices up some 10 or 15 florins respectively and the immediately following revolt in the Soudan, and the edict forbidding exportation, at once raised the price of Soudan guns already in Europe, to 300 florins, and prices continued to advance until 600 florins per 100 kilograms was reached.

"The existing stock was soon exhausted, even at this price (about \$1.50 per pound), and for a time Europe was absolutely without gumarabic, or even of Gehziri gum. In 1885-86 the first lot of Gehziri gum arrived, via Cassana, but this source of supply was soon shut off by the Italian-Abyssinian war.

⁴In 1890 gum-arabic and Gehziri gum again appeared in the market, not in very considerable quantities, but sufficient to bring the price for the first down to 100-140 florins, according to class, and the latter to 50-70 florins.

"In 1892, notwithstanding the importations were not any more considerable than in the preceding year, there was a drop of 20 per cent in prices, and guns fell back to the prices of twelve years previously. The diminution of importation of all varieties (Arabic. Gehziri, Senegal, etc., which in 1881 amounted to 40,000 quintals, and averaged 30,000 quintals for years) continued, and last year but 10,000 quintals of gum, of all sorts, were imported."

This constant decrease of demand for gum-arabic is due mainly, and almost solely, to the discovery of cheaper substitutes for the gum in the arts and industries, and these substitutes have proven so satisfactory that, notwithstanding the present low prices, there is a demand for only 10,000 quintals per sumum, or only one quarter of the amount of gum needed in 1881. The probability is that had the scarcity, and consequently enormously high prices, not have occurred, the world would have continued to use 40,000 or 50,000 quintals per annum, and the effective substitutes would still be unknown.— Nat. Druggist.

Cod Liver Oil Report.

FROM JOH. RYE HOLMBOE. Tromsoe, Norway, Feb. 7th, 1891.

Stormy weather has continued to impede the winter fisheries, which may now be considered nearly ended with a yield of cod liver oil probably not exceeding one third of last year's production.

The Lofoden fishery has commenced with pretty satisfactory prospects. It is, however, alarming to note, that the livers are unusually poor. A catch of 600,000 codfish has only yielded 1350 hektoliters of livers against last year 1950 hekt. out of the same quantity of fish. I calculate that it will need 40 millions of cod or 10 millions more than ever caught at Lo foden to make up a total quantity of cod liver oil similar to the aggregate yield in 1893 from the Winter & Lofoden fisheries.

In spite of these facts the foreign importing markets have been slack and I have heard of sales at 60 sh. cif. I wish to see a little more of the Lofoden fishery before quoting firm, fearing if stormy weather should continue as hitherto, it will be impossible to execute orders at the above figure.

In the meantime I book orders at competitors' prices and will quote firm on enquiries by letter or wire.

BORO SALICYLIC ACID SOLUTION, COntaining four grammes each of boric and salicylic acid in a liter, proposed by Cesaris and Carcano, has been found of such value in an Italian hospital that it completely replaced the mercuric chloride solution. The addition of the boric acid adds permanency to the salicylic acid solution; the strength of the solution can be increased so as to contain six grams salicylic acid per liter, although this solution was only occasionally used.—(*Bollet. Chim. Farm.*) *Pharm. Ztg.*

ACETIC ACID FOR THE PREPARATION OF EXTRACTS, - F. Hoffman proposes to replace alcohol by acetic acid in the preparation of extracts. The fluid extracts so prepared contain about 25 per cent of extractive, 30 per cent. of acetic acid, and 45 per cent. of water. They are very aromatic, and their preparation is very economical. Experiments with nux vomica and belladonna have been very successful. The extraction is more rapid than with alcohol, and at the same time more complete, and the percentage of alkaloid is high and fairly constant, and decomposition products appear to be less frequent than when alcohol is used as the solvent - Repertoire do Pharmacic.

THE DECOMPOSITION OF CHLOROFORM. Erdmann, who has been investigating the action of oxidising agents on chloroform, disputes the results obtained by Emmerling and Lengyel who stated that the decomposition by means of chromic acid was as follows :

$2\mathsf{CHCl}_2 + 3\mathsf{O} \rightarrow 2\mathsf{COCl}_2 + \mathsf{Cl}_2 + \mathsf{H}_2\mathsf{O}.$

Erdmann, however, states that no trace of free chlorine is to be found, but that the reaction is

$\begin{array}{rl} 2\mathrm{CHCl}_{2} \ + \ \mathrm{CrO}_{3} \ + \ 2\mathrm{O} & 2\mathrm{COCl}_{2} \ + \ \mathrm{CrO}_{2} \\ & \mathrm{Cl}_{2} \ + \ \mathrm{H}_{2}\mathrm{O}, \end{array}$

since he was able to distil over a brownish oil, which could be identified as chromyl chloride. *Apotheker Zeitung*.

NEW PILL EXCIPIENT. Prof. Carles (Bull, de la Soc. de Pharm, de Bordeaux) gives the following process for preparing pills of alterable medicaments, such as potassium permanganate, silver nitrate, gold chloride, the iodides of mercury, etc , which with this excipient do not change in appearance and preserve the active principle indefinitely. Triturate, kaolin, 2; anhydrous sodium sulphate, 1, and water, 1, the mass remains plastic during 6.10 minutes, but after fifteen minutes becomes so hardened that it can be thrown on the floor without danger of breaking. With this mass the medicament in fine powder is incorporated.

CRISTALLINE is a kind of collodion, in which the ether and alcohol employed as solvents for pyroxylin, are replaced by methyl alcohol. It differs from collodion, in that the solvent evaporates more slowly, and in forming a transparent film, which allows the part it protects to be seen and the progress of the treatment followed. An elastic cristalline can be obtained by adding 20 gm. cristalline to 5 gm. castor oil and 10 gm. Canada turpentime. Cristalline dissolves pyrogallic and salicylic acids, chrysarobin and other medicaments. The only disadvantage of its use is its odor.—(Semaine Medicule.)—Amer. Journal of Pharmacy.

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

In pills containing creasote, according to a correspondent of the *Pharm. Post*, the creasote should be thoroughly mixed with twice its weight in powdered liqorice root, and then adding sufficient glycerin until the desired consistency is reached. By this method a plastic mass results, in which the creasote is equally distributed.

CANADIAN DRUGGIST.

M	arch	1894,
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Bromide, lb.5560TARTAR EMETIC, lb.5055Lemon, lb.275300Carbonate, lb.1416THYNOL, (Thymic acid), oz.5560Lemongrass, lb.150160Chirate, Eng, lb.2330VERATRINE, oz.200210Mustard, Essential, oz.66Powdered, lb.3033Zinc, Acetate, lb.7076Neroli, oz.425450Carbonate, lb.7590Carbonate, lb.7076Neroli, oz.375500Cyanide, lb4045Carbonate, lb.1315Sweet, lb.375500Hypophosphites, oz.1012Iodide, oz.6065Origanun, lb.6570Iodide, lb.400410Oxide, lb.1360Petchouli, oz.175180Nitrate, gran, lb.810Sulphate, lb.911Pennyroyal, lb.30322Prusatar, Red, lb.5055Valorianate, oz.7580Rhoeina, oz.8085Yellow, lb.3235Olt, Almond, bitter, oz.7580Rhoeina, oz.8085Yellow, lb.323540Ree't, lb.5060Gamary, lb.7075Qursity, Sulphate, oz.3536Amber, crude, lb.4045Rose, oz.7580Qursity, Sulphate, oz.3536Amber, crude, lb.4045Rose, oz. <t< th=""></t<>
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SOMNAL, oz
SFIRIT NITKE, 1b
STRONTIUM, Nitrate, lb
STRYCHININE, crystals, oz 1 00 1 10 Juniper, herries (English), lb., 4 50 5 00 Salad, gal 225 240
SULFONAL, 0Z
SULTIUR, Flowers of, Ib 21 4 Lavender, Chiris. Fleur, Ib 3 00 3 50 SPERM, gal 1 70 1 80
Pare precipitated, lb 13 20 Garden, lb 1 50 1 75 TURFENTINE, gal 65 68

The Standard Brands. MILLIONS - OF - EACH - BRAND Sold Annually. 'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo' { S. DAVIS & SONS,

"DERBY PLUG," 5c. and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO.,

Drug Reports.

Canada.

Business is very good, considering the impassable state of country roads this spring.

Quinine maintains high price.

Cocoa Leaves, lower.

Oil Cubebs, lower.

Ergot, easier.

Oil Lemon, declined.

Opium maintains high price. Morphia shows signs of sympathizing with it.

Cream Tartar, which has been very low during the month, has advanced, and shows signs of a further rise in price.

Silver shows signs of advancing.

Vanillas are worth more money.

Camphor steady, usually advances about this time.

Flax seed is high.

England.

London, Feb. 27th, 1894.

There has been a sligh improvement noticeable in both home and export trade, but no indications of the revival which was expected. Prices are for the most part unaltered, the chemical market remaining very steady. The recent drug auctions have passed off with fair demands.

Opium is hardening and will probably advance; in fact, agents here decline to execute orders at previous rates. The American demand, in view of \$1 duty, is given as the principal cause.

Jaborandi leaves are scarce, although several parcels are expected.

Cocaine is dearer, a sharp rise having been notified by manufacturers.

Chloral hydrate makers have also advanced their prices.

Morphia manufacturers have advised an advance, but so much remains in second hands that it is hardly carried out.

Jalap is in good demand at full rates.

Ipecacuanha is slightly easier but well maintained.

Senega Root, Cubebs and Camphor are falling somewhat.

Chlorate of Potash is gradually climbing down and Citric Acid is offered at lower prices.

Phenol Sulphoricinoleate is a solution of 20 parts pure phenol, i. c., carbolic acid, in 80 parts sodium sulphoricinoleate.

Montreal.

Cod Liver Oil Report.

FROM JOH, RYE HOLMBOR.

Tromsoe, Norway, Feb. 21st, 1894.

Reports from Lofoden are very discouraging. It appears we are stepping into a period of small fish with lean livers and as a matter of course a fall off in the yield of cod liver oil—similar to what last happened in the years 1883 and 1884, when prices rose to an enormous height.

Up to date there have been caught at Liofoden 3 millions fish yielding 1330 hektoliters cod liver oil besides 3170 hekt. livers for the production of cold drawn oils. The corresponding figures last year were 2,900,000 fish, 1914 hekt. cod liver oil and 4842 hekt. livers, showing a decline in the yield of livers and the fatness of the same of about 30 per cent.

Stormy weather is still prevailing on the grounds and fish appear to be scarce.

Prices have risen considerably during the last fortnight and a further rise must be expected.

My last sales have been effected at 65 sh. but this price can hardly be maintained. Seeing the probability of the next reports causing a further considerable rise, I dare not quote firm to day, but beg my customers will please to wire their wants, when I shall promptly quote firm by telegraph.