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Makers on the premises of
**SURGICAL INSTRUMENTS
ELASTIC STOCKINGS
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Druggists' Sundrymen, etc.
Braided Speaking Tubing
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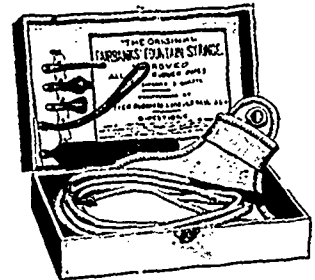
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Fairbanks' Fountain Syringe

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SIX HARD RUBBER TUBES

Under our trade mark "TYRIAN" we manufacture a full line of Druggists' rubber goods. Write for catalogue.

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BAYER'S PHARMACEUTICAL PRODUCTS.

SOMATOSE

A tasteless, odourless, nutrient meat powder; it contains all the albuminoid principles of the meat in an easily soluble form. It has been extensively employed and found to be of the greatest service in consumption, diseases of the stomach and intestinal tract, chlorosis and rickets. It is of great value in convalescence from all diseases. SOMATOSE strengthens the muscles and stimulates the appetite in a remarkable manner. Dose for adults: a level teaspoonful three to four times a day with milk, gruel, coffee, etc.

IRON SOMATOSE

(Ferro-Somatose). A first-class tonic, containing the albuminous substances of the meat (albumoses) organically combined with iron. Special indications: Chlorosis and Anæmia. Daily dose: 75 to 150 grains.

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The active principle of the thyroid gland. It is most efficacious in Strumous Diseases, Myxædema, Obesity, Rickets, Psoriasis, Eczema and Uterine Hemorrhages. Dose: 5 grains two to eight times a day for adults; 5 grains one to three times daily for children.

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Tartrate of Piperazine Anti-Arthritic, Uric Solvent. Has a marked effect on the diuresis. Dose: 16 to 32 grains daily.

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An Iodine Cicatrisant which is an excellent odourless substitute for Iodoform and highly recommended for Burns, Wounds, Scrofulous Ulcerations, etc.

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A perfect substitute for Iodoform. Odourless and nontoxic. Has a covering power five times greater than Iodoform. Especially useful in Ulcus molle et durum.

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FOR INFANTS, INVALIDS,
and
THE AGED.

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It is now extensively advertised in Canada, and may be obtained of leading wholesale houses, or of

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Montreal and Toronto

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LUNG TONIC
(Three Sizes)

EMBROICATION
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HÆMORRHODINE
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ATOMS OF HEALTH

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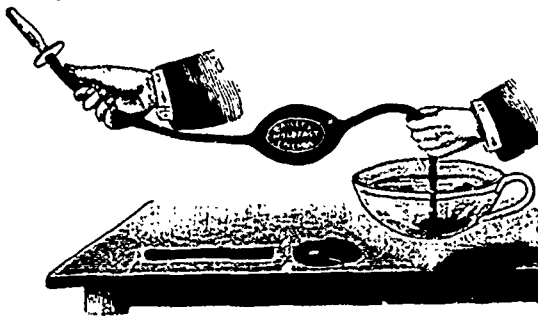
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Chloroform Pure,
[Answering all recognized purity tests.]

Morphine and Salts
AND OTHER FINE CHEMICALS.

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Best
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Make

Will
Supersede
all others.

Best Black, oval boxes, complete, per dozen, \$4.91
Best Drab, " " " " 3.61
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CARBOLIC DISINFECTANTS (Fluid and Powders)
SOAPS, OINTMENT, TOOTH POWDER, ETC.

Are the Original and Only Reliable

Have been awarded 85 Medals and Diplomas for Superior Excellence
in competition with others.

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EVANS & SONS, LIMITED, Montreal.

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and other wholesale houses, who
will be pleased to quote rates on application, or trade lists and circulars
will be mailed direct by the manufacturers,

F. C. CALVERT & CO., MANCHESTER, ENG.

Canadian Druggist

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

VOL. X.

TORONTO, APRIL, 1898.

No. 4

"APENTA"

THE BEST NATURAL APERIENT WATER.

Bottled at the Springs, Buda Pest, Hungary.

"APENTA"
THE BEST NATURAL APERIENT WATER.

"We know of no stronger or more favorably-constituted Natural Aperient Water."

L. Lieberman

Royal Councillor, M.D., Professor of Chemistry,
and Director of the Royal Hungarian State
Chemical Institute (Ministry of Agriculture),
Buda Pest.

"APENTA"
THE BEST NATURAL APERIENT WATER.

PRICES TO RETAILERS:

\$5.50 per case of 25 large glass bottles.
\$8.50 " 50 small " "
\$8.50 " 100 glass quarter "

"APENTA"

SEE that the Labels bear the well-known
RED DIAMOND MARK of the

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THE APOLLINARIS COMPANY, Ltd.,
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WALTER R. WONHAM & SONS,
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Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription \$1 per year in advance.

Advertising rates on application.

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

New advertisements or changes to be addressed

Canadian Druggist,

37 COLBORNE STREET,
TORONTO, ONT.

EUROPEAN AGENCIES:

London, England: 145 Fleet Street, E.C.
Paris, France: 13 Rue de la Grange Bateliere.

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CAJUPUT OIL IN CROUPOUS PNEUMONIA.—Sinha (Therap. Gaz.) has treated eighteen cases of croupous pneumonia with great success with oil of cajuput. The oil is given in the form of an emulsion in doses of five minims.

Window Advertising.

The matter of window dressing has become an important feature in all lines of business. At one time the dry goods dealer, haberdasher or clothier were almost the only merchants who gave particular attention to this all-important form of advertising, and the chemist and druggist contented himself mainly with the colored show bottles or handsome jars which always have been the acknowledged sign of the "apothecary shop." With the advance in public taste, however, and the desire to "catch the eye" of the people, window dressing has now become quite an art with the modern druggist, and it goes without saying that it is one of the most profitable forms of advertising adopted by the drug trade.

The bright, showy window, neatly but not too profusely decorated with goods which are in general demand, so placed as to attract attention, and to stimulate the desire of the public to possess them, has now become a leading feature not only of the city drug store but also of those in smaller places. With some of the trade, however, this excellent form of advertising is still neglected. We have seen some windows in which a promiscuous assortment of patent medicines, toilet articles, sponges, etc., were so inartistically and crowdedly thrown into the window that the first impression of the passer-by would naturally be, that is if it even would draw the attention of any one, that he was passing a junk shop or a "clearing sale" of job lots of all manner and kinds of goods. A druggist should carefully consider what impression is made upon the public by his wares and notably by his display of them. If in passing the store window the glass is shining, the contents are clean and tastily arranged, and the general appearance one of neatness and care, is it not natural to suppose that the interior is kept in the same neat, methodical order, that the preparations made there are to be relied upon as being made with the same

care as is shown in the arrangement and display of goods and the prescription work is done in the same way, with a view to care, cleanliness, neatness and reliability? On the other hand would not the careless, dusty and inartistic window display give the impression that this was an index of the interior of the store and the work done in it? We believe our readers will agree with us that the up-to-date druggist who puts forth his best efforts to make his window, his store and the surroundings as attractive as possible is bound to be well repaid for any additional time or labor bestowed upon it—and the general public will show their appreciation by patronizing this place of business in preference to one who neglects these important features of "business bringers."

Time must be Served in a Retail Store.

The Council of the Pharmaceutical Association of the Province of Quebec has recently ruled that apprenticeship in a wholesale drug house will not count. Wholesale houses are, expressly, by clause 4052 of the Pharmacy Act, "exempt from the operation of this act so long as they confine themselves to wholesale dealing." It is evident that an apprentice cannot learn all the branches of pharmacy in a wholesale store which he would necessarily be daily in contact with in a pharmacy proper. Take dispensing, for instance. It is slowly and by degrees that an apprentice becomes acquainted with this art, and it is rarely that he is entrusted with putting up prescriptions of a dangerous character until he has been practically engaged in handling drugs some two or three years, and even then he is under the surveillance of the chief clerk or proprietor. We are of opinion that after a youth has passed his certified clerk's examination, a year spent in a manufacturing pharmacist's laboratory would be of great service to him; but from examples we have seen we do not think that three years in the routine work of such a laboratory could possibly supply the place of the same length of time spent in a pharmacy proper.

In concluding we cannot refrain from protesting against the tone of a contemporary while discussing the merits of the recent ruling. The Council of the Pharmaceutical Association is open to public criticism, and it may be that a temperate discussion of the question might induce the Council to modify its decision and permit a certified clerk to spend one year

in a manufacturing chemist's laboratory after passing his minor and before presenting himself for the major.

We quite agree with the contention of the editor of *Merk's Report* in reference to the education of the pharmacist where he says (Vol. xii., No. 7): "It is in the laboratory such as it may be, not of his college, but of his employer's store and behind the prescription desk that he slowly accumulates the quality of a true pharmacist."

The law in England requires (*vide Chemist and Druggist*, volume 52, number 937, page 561) that the candidate for examination must produce a certified declaration that he has been for three years practically engaged in the translation and dispensing of prescriptions.

Now as wholesale druggists cannot legally dispense prescriptions and in fact do not do so, it is evident that the apprentice would not have the kind of experience required in a certified clerk, if his time were spent other than in a retail drug store.

With regard to the increase of the annual fees paid by licentiates, certified clerks and registered apprentices, the Council has the law on its side, and we feel confident the Council would not have resorted to this measure without urgent necessity. The fight at Quebec was long and bitter, and it was necessary to checkmate all the tactics of the enemy, who was well supplied with funds, and from what we know of Mr. Muir, the worthy secretary and registrar, and Mr. Williams, the president, we feel satisfied there was no useless expenditure of money. It is certainly worth \$10 to any pharmacist engaged in active business to be free, to a great extent, from departmental store fake competition, and it is clearly understood that this apparently exorbitant fee will only be for the current year.

Pharmaceutical Examinations.

The sessional examinations of the Montreal College of Pharmacy closed on Thursday, March 31st, and the following students, named in order of merit, passed the December and March examinations, namely:

Materia medica, senior class, English—G. H. Voss, prize; Alfred James Bedard, A. E. Baldwin, Allan T. Christie, F. J. Lemastre, Moses Albert, O. H. Tansey, C. F. Covernton.

Materia medica, junior class, French—

G. Richard, prize; Miss A. A. Prevost, Hercule Guerin, Joseph Valois.

Chemistry, junior class, English—Alfred J. Bedard, prize; T. A. Swift, E. Percy Jones, Allan T. Christie, Moses Albert, A. E. Baldwin.

Chemistry, senior class, French—Gustave Richard, prize; Miss A. A. Prevost, Hercule Guerin, J. A. Goyer, S. Moisan, Gilbert Faulkner.

Botany Class—George H. Voss, prize; S. Moisan, D. R. O'Neill, P. G. Mount, C. A. Dechenes, R. Pasquin.

The annual meeting of the college will be held on Thursday, May 4th, when the prizes won by the students will be presented.

Acetylene Gas.

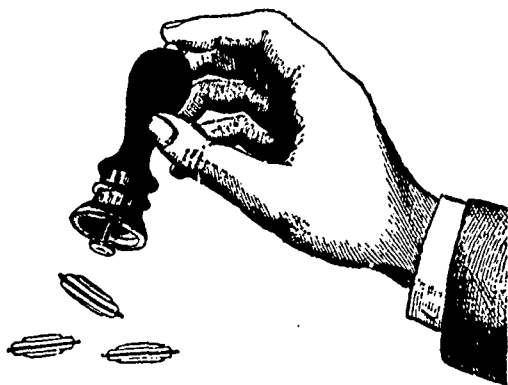
An interesting lecture on "Acetylene Gas as an Illuminant" was delivered April 5th in the Grand Trunk Literary and Scientific Institute rooms, Montreal, by Prof. T. D. Reed, M.D., Dean of the School of Pharmacy. The properties of the gas were explained in a lucid manner. It is a colorless gas, with a pungent smell, by which its presence in a room can be readily detected. Its specific gravity is 0.91, or about nine-tenths that of air. From burners, specially prepared for it, which were exhibited by the lecturer, it burns with a very strong, luminous white flame. One cubic foot contains 868 units of heat, somewhat greater than that of common gas, but at present its great value has only been recognized as an illuminant. It is claimed that when burning the acetylene gas only gives off about a sixth as much carbonic acid, and none of the poisonous carbonic oxide, as does coal or water gas. Shades of all colors are easily detected by the acetylene process. It is also claimed that a burner emitting one-half of a cubic foot of gas per hour will, when burning, give a light equal to 25 standard candles, whereas a burner emitting five cubic feet of ordinary gas per hour will give a light of only 18 standard candles. From an economic point of view it is claimed that there is a very large reduction in the price of this gas compared with ordinary gas.

It is not considered dangerous as regards its explosive propensities; there is also little or no danger resulting from the gas being blown out by the ignorant.

Acetylene gas, as explained by the professor, is developed from carbide by the application of water, through the aid of a generator. Its utility for stereopticon

CHAPIREAU'S

CACHETEURS



AND CACHETS

Are used by Druggists throughout Canada, and are pronounced to be the best in the market. No up-to-date chemist can do without them. Complete Machines (last a life time) suit all sizes Cachets, \$5.00 to \$10.50.

JUST



OUT

10 Tablets in phial. Each tablet makes an ounce of black unfading ink. Retail at 10 cents. Elegantly put up.

JUST THE THING FOR THE KLONDIKE.

CANADIAN SPECIALTY CO.

38 Front Street East, TORONTO, ONT.

HEADACHES

Resulting from

OVERSTUDY
SLEEPLESSNESS
NERVOUSNESS
EXHAUSTION

Are cured by taking

EFFERVESCENT

HYDROBROMATE OF CAFFEINE

—WITH—
BROMIDE OF POTASSIUM

10 cent size, 2 doses, 75c dozen
25 cent size, 12 doses, \$1.90 dozen

ASK FOR A LITHOGRAPHED WALL CARD

ELLIOT & CO.

5 Front Street East : : : TORONTO

'Diamond' Lye

Powdered
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is
the best on the market

TRY A CASE

— \$3.60



ELLIOT & CO.

5 Front Street East, : TORONTO

Maypole Soap...

Washes and Dyes at the same time.

MADE IN ENGLAND.

A
Perfect
Scientific
Dye.



For
Home
Dyeing
Unequaled

This is the most popular Household Dye sold in England. Over 5,000,000 packages were used in 1897, and the consumption—wherever it has been once used—is steadily increasing.

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8 PLACE ROYALE,
MONTREAL.

ARTHUR P. TIPPET & CO.
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... 1898...

WALL PAPERS

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We purchase our Sponges direct from the fisheries and comprise amongst other

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Foams, Half Foams and Cuts. Finest goods ever shown in Canada.

BATH SPONGES

in Florida and Abaco Sheep Wool, Nassau, Abaco and Cuba Velvets, and Florida Yellow; Nassau and fine Acklin Reef and Acklin Grass; also superior line in fine Surgical, Semoka Toilet, and finest Silk Toilet.

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American and English, first and second qualities.

Send for Catalogue.

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The Canadian Board of Trade Journal

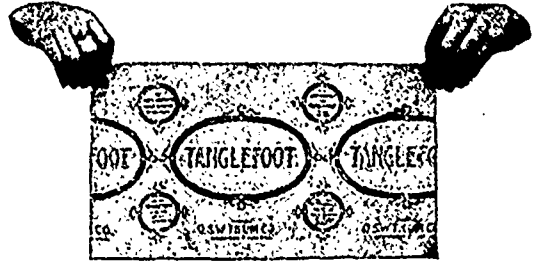
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\$3.40 A CASE.

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purposes was vividly shown by the production of various views. The lecture throughout was listened to with much attention, and was thoroughly appreciated. At the conclusion of the same a cordial vote of thanks was tendered the lecturer.

Pharmaceutical Examinations.

MONTREAL COLLEGE OF PHARMACY.

MATERIA MEDICA AND PHARMACY SENIOR CLASS, MARCH 31ST, 1898.

Examiner, PROFESSOR T. D. REED, M.D., J.P.

1—Name four derivatives of alcohol of medical value and show by an equation the production of one of them. 2—Distinguish between hydrocarbons and carbohydrates. Give four examples of each, and note the chief chemical differences which distinguish them. 3—Distinguish between distillation, fractional distillation, destructive distillation, distillation in vacuo. What are the conditions for obtaining a satisfactory sample of distilled water? 4—What is a ferment? Name four products, obtainable by as many different ferments. 5—Give a concise account of the botany and pharmacognosy of Ergot, give also the official preparations with strength. 6—Nux Vomica, definition, botanical name of plant, medicinal action, official preparations. Give in outline the official process for titrating the Galenical preparations of Nux Vomica. 7—Relate the modern idea, as to the constitution of Alkaloids. What are Leucomaines; Ptomaines? 8—With 1 pound of powdered opium 11 p. c. morphia strength, half pound of 8 p. c., and 1 pound of 5 p. c., how large a quantity of powder of 10 p. c. morphia strength may be made? 9—Give the composition of the following: Heberden's Ink, Pilul. Rufi, Ward's Paste, Huxham's tincture and Pil Cochia. 10—Relate the principal facts of the botany, pharmacognosy, pharmacy and therapeutics of colchicum.

BOTANY.

Examiners { PROFESSOR JOS. E. BERNROSE, F.C.S.
PROFESSOR J. L. MORRISON, F.R.M.S.

To what groups and classes of plants does the Fucus Vesiculosus belong? Describe its reproductive organs. 2—Describe the fruit called "Samara"; in what family of plants is it found? 3—What kind of plants are included in the Groups: Thallophtyes, Bryophtyes and Pteridophtyes? 4—What do you understand by the "Alternation of Generation"? Illus-

trate by an example taken from the Ferns. 5—Name some forms of inflorescence found among the grasses, and the parts of one of the flowers in order. 6—Describe in botanical terms the following articles of food: figs, onions, peas, lettuces, carrots, asparagus, Postin beans. 7—Give the essential characters of a yellow lily, yellow flag, and of a buttercup. 8—Where are the chloroplastids found and what are their functions? 9—Define the terms: rotate, papillionaceous, dichogamy, monoecious, dioecious. 10—How would you distinguish between cellulose, cutin and lignin?

CHEMISTRY SECOND YEAR.

Examiner, PROF. C. A. PFISTER.

1—Five grammes of an organic body which is liquid and neutral gives on combustion grams 11.89189189 of CO_2 , and 6.081 grams of H_2O . Find the percentage composition (C.H.O.) 2—Find the formula of the above, name the body; it is the ethyl series v. Dens. 2.569 (air=1). 3—We desire to titrate a sample of vinegar, using normal H.Cl. and semi-normal N.H.₃. Into 100 cm³ of the sample is poured 102.4 cm³ of the ammonia. This was found to be excess and 62 cm³ of the H.Cl. was required to make the liquid neutral. Find the Λ of the vinegar. Pure acetic acid = Λ 1.064. 4—A manufacturer has the above in quantity at 2,201 gallons. For excise purposes this is to be taxed according to the alcohol of 94 p.c. Λ .8201 it represents; make the calculation. Alcohol pure may be taken as Λ 7940. 5—Five grammes of a mixture of KNO_3 and NaNO_3 is treated with H_2SO_4 . The dry sulphates weigh 4,229 grammes. Find the quantity of each nitrate. 6—From 100 lbs. of glucose, containing 10 p.c. of water, how much alcohol should be obtained, in fermentation, allowing 7 p.c. for loss. 7—Give the chemical formula for Diethylamine, Hydrate of triethyl, butylammonium, methylethyl propylphosphine. 8—Show the mode of generation of phenol from its usual hydrocarbon source. Give the formula for Nitrobenzene, and show the relation of aniline to ammonia. 9—Show the relation of the aldehydes, acids, ethers of the series $\text{C}_n\text{H}^{2n}_n + \frac{1}{2}\text{O}$. 10—Explain the terms: Series, homologue, isomeric, metameric, polymeric. The formula of ethylglycol diatomic is $\text{C}_2\text{H}_6\text{O}_2$, note the aldehydes and acids obtainable from it. Indicate the three nitricethers from glycerine.

CHEMISTRY AND PHYSICS JUNIOR CLASS.

Examiner: PROF. JOS. BERNROSE.

1—What is the weight of a cubic metre of ether (.720)? of a minim (Imp) of quicksilver (13.59)? 2—Where and in what state does Iodine occur? How is it obtained, and what are its Chemical and Physical properties? 3—Given a pipette graduated into tenths of a cubic centimetre, a test tube and some pure water, how would you determine the specific gravity of a weighted button of lead? 4—Readings by Hearn and Harrison's barometer on March 19th, at noon 29.80; the day before 30.30; what does this statement mean? 5—How much calcined magnesia will be obtained by heating 1000 grammes of the B.P. Carbonate? 6—How would you make a dialysing apparatus, and how would you use it? 7—By what reaction may the Phosphate, oxalate and iodide of sodium be distinguished? 8—When the following objects are viewed through a spectroscope, which kind of spectrum is seen? (a) an incandescent solid, (b) a flask filled with NO gas, (c) a bunsen flame vaporizing a metal or a metallic salt, (d) a solution of eosine or magenta? 9—In what does the Solar spectrum differ from these, and why? 10—What material would you use for making a galvanic battery composed (a) of one fluid (b) of two fluid cells.

MATERIA MEDICA JUNIOR YEAR.

Examiner, PROF. J. E. W. LECOURS.

1—Give reasons for rejecting the first portion of the distillate in preparing distilled water, also for ceasing the operation before the still is empty. Give the characters (test) for Aq. Distil. P.B. 2—How are the following prepared: Aquanisi; Aq. Rosaium? 3—Explain the process for Syr. Ferri Iod. P.B. 4—What is observed on mixing Syr. Scillæ and ammonium carbonate? 5—What is meant by titration? Name two preparations of P.B. to which this process is applied. 6—Name some cases in which hot water is not suitable for making a solution. What is the objection? 7—Make suggestions for the preparation of the following: R. Permangan., Potas gr. iii. Divide i. to xii. pills. 8—Explain the production of ethylic alcohol. How strong are the Sp. V.R. and Sp. Tenuier P.B.? 9—What is the opium strength of the following: Laudanum, Vin. Opu, Dover's, arom chalk with opium, paregoric? 10—What is the proportion of quinine in the wine, in the tincture of quinine? Give the strength in Alkaloid of Ext, Nuc Vomica. Tinct. Nux Vomica.

"Very Satisfactory."

In last month's issue Messrs. Lawson & Jones, label printers, London, Ont., called the attention of the trade to their samples of calendars for next year. They write us that the "ad. was very satisfactory" and say "kindly continue our ad. re calendars as it appeared in last issue. Post card applications to see samples are coming in by every mail. Respectfully yours, Lawson & Jones."

As another instance of the value of advertising in the CANADIAN DRUGGIST, we have been shown an order from a drug firm in Newfoundland for some goods which were only advertised in the DRUGGIST last month. *It pays to advertise in the Canadian Druggist.*

Decalcifying and Desilicating Sponges.

Dr. E. Rousseau decalcifies sponges which contain much lime salts, such as *Leuconia*, *Leucandra*, *Sycon*, etc., by first hardening and then imbedding in celloidin. The imbedded pieces (not more than 2 Cm. in length) are then immersed for from 12 to 24 hours in a mixture of 15-40 parts nitric acid of sp. gr. 1.4, and 100 parts of 85 per cent. alcohol, and are then transferred to 85 per cent. alcohol containing some precipitated calcium carbonate until every trace of acid is removed. Sections are then made in alcohol of the same strength. For desilication the sponge is treated with fluoric acid after imbedding in celloidin, as in the previous method. One of the small imbedded pieces is then placed in a caoutchouc capsule having a lid and containing at least 50 C.c. of alcohol. To this is added commercial hydrofluoric acid drop by drop up to 20 or 30 drops, according to the amount of silica in the sponge. The desilication takes from one to two days. The pieces are then placed in 85 per cent. alcohol containing some lithium carbonate. As a precaution all the vessels and instruments used must be covered with caoutchouc or paraffin. By this process very good sections may be obtained of *Tethys*, *Suberites*, *Thenia*, *Glodia*, *Reniera*, etc.—*Zeits. fur Angew. Mikros., Phar. Journal.*

CAPTOL.—This is a condensation product of chloral and tannin, a brownish powder, recommended as an antiseptic astringent in the treatment of falling of the hair due to seborrhea.

British Columbia Notes.

And now there is a breathing spell. The almost stampede to the much-talked-of Klondike mines during the last three months has subsided for a time and we have now leisure to look back and marvel at the credulity of mankind. Just what the Canadian Yukon has in store for us it is not possible at this moment to estimate; in fact reports from the various mining camps are so varied—so contradictory—that at times one even wonders whether the old story of the Cariboo is to be retold with its miseries intensified. If only the truth could be arrived at; if men would not allow their imagination to take possession of their sounder judgment, what a different complexion would be put upon things! That there is gold in the Klondike need not be told here, but it will certainly be got only by much suffering, hard toiling and perhaps after bitter disappointments.

Such a city as Victoria has been, and as Vancouver has been this spring! The usual trade has been entirely pushed to the background, and *miners' wants* have had first place. The drug store windows presented an appearance that perhaps has never been equalled in all their history, even in this mining province; nothing but thick chamois vests, medicine chests, pocket microscopes, etc., etc. And there has been quite a big business done, too, although there has been some great awakening as to what is really required in that cold, cold country. Saccharin is among one of the articles that is not popular with intending miners. The majority prefer to take sugar, and although the extra weight is a serious consideration they generally end by taking it. It has been noticed, too, that many have taken small quantities of lime-juice tablets instead of citric acid, though this latter article has been so cut down in price by the retailers that it is hardly worth handling. Generally speaking the prospective miner thinks he knows what drugs he wants. He has been told by a friend who is in the drug business, or his family physician has furnished him with a list, and consequently he comes armed and determined to have what he wants or nothing. We have met many such, and, though we have used some persuasion and probably succeeded in a measure in modifying the list, it has been pitiful to see what a lot of rubbish these men will persist in hampering themselves with. A large number will not bother with a

case at all, but take a few useful drugs packed in their outfit. Sensible men! How different to those who bring all the way from London, Eng., a £5 medicine chest and want to throw it over the rocks before half way.

The streets of these cities have looked the busiest for years during these past few months. Men of all nations, dressed in every conceivable style of arctic apparel, have rushed from store to store getting and comparing prices. And every man has some brilliant scheme (all his own) for making money.

There was one party we met who were tramping the city over pricing hot water bags. For what purpose think you? It was their intention to fill the bags with liquor, and each man of the party would pack one on his back and another on his chest *under his clothing*, and so avoid the customs' officers. That was the scheme, but whether it was ever carried out we cannot say, nor do we know if the bags were bought.

Mosquito remedies by the thousand. Every old miner knows a sure preventive against the pests, and certain it is that many will lose money in speculating with these recipes.

As we said at the beginning "there is a breathing spell now;" but there is every prospect that what business has been done is nothing to what will follow. But here let it be said that "druggists" have gone up in great numbers to the Klondike. Every party of any size had either an M.D. or a druggist with them, and what these poor fellows will do when they arrive is beyond our ability to say. So far the greater number have been American physicians and druggists; Canadians and English have wisely held back, for there is very little for them in that healthy climate.

Enquiries have reached the city as to the prospects of obtaining situations in the Province, as so many have been reported as leaving or left. The fact is that every position is filled as soon as it is vacated without any difficulty, and there is no better opportunity now for a druggist to open out, or a drug clerk to get employment than there was a year ago.

BORON ALLIED TO DIAMOND.—Crystalline boron, says the Chemical News, is very closely analogous to diamond—i.e., crystalline carbon. It has the lustre, the high refractive power of the diamond, with which mineral it also competes in hardness.

“FLY PADS.”

ARCHDALE WILSON & CO.

Direct the attention of the Drug Trade to the judgment of Hon. Mr. Justice Rose, restraining The Lyman Brothers and Company (Limited) from imitating “Fly Pads,” and give public

NOTICE

that all parties manufacturing or selling imitations of “Fly Pads” will be proceeded against in the Courts.

In the High Court of Justice.

BETWEEN **ARCHDALE WILSON & COMPANY,** Plaintiffs,

—AND—

LYMAN BROTHERS & COMPANY (Limited), Defendants.

The 23rd day of June, A.D. 1897.

1. This action having on the 25th and 26th days of January, A.D. 1897, been tried before the Hon. Mr. Justice Rose, and the said the Hon. Mr. Justice Rose on the 23rd day of June, A.D. 1897, having adjudged that the way in which the defendants have put up their fly paper, both as to the form, the envelopes, the packing into boxes and the ornamentation of the boxes, and the advertisements, was calculated to mislead.

2. IT IS THIS DAY ADJUDGED that the defendants, their servants, agents and workmen, be, and they are hereby, restrained from continuing to put up and advertise such matter as to mislead.

3. And this Court doth not think fit to make any other order in the matter.

4. And it is further ordered that there be no costs of and incidental to the trial of this action to either party.

Judgment entered 15th October, 1897.

S. H. GHENT, Deputy Clerk at Hamilton.

“SURE CATCH” Sticky Fly Paper

PRICE LIST FOR 1898:

One or more Boxes.....	\$0.40 per box
Half Cases (Five Boxes).....	1.80 each
One to Five Cases (Ten Boxes each).....	2.40 per case

At the solicitation of many jobbers we shall also pack “Sure Catch” in half cases, thereby avoiding repacking small lots.

SPECIAL OFFER
In every case of “SURE CATCH” Sticky Fly Paper, we shall pack 10 sheets of “SURE CATCH” Poison Fly Paper Free (one sheet in each carton). At the usual price, this nets the dealer 66 2/3 per cent. per case more than the usual profit on Sticky Fly Paper.

“SURE CATCH” POISON FLY PAPER. Made of Extra Heavy absorbent Felt Paper. Packed six sections in an envelope.

PRICE LIST.—1 Box, 50 Envelopes, \$1.25.

1 Case, 10 Boxes, 500 Envelopes, \$10.00.



“True Fruit” Fountain Syrups

We are the manufacturers of the above justly celebrated Syrups, so well and favourably known to the trade throughout Canada.

Crushed Fruits and Syrups of every flavour you want for your Fountain.

Also **“True Fruits” Brand Powdered Fountain Chocolate**

The Best is always the cheapest in the end. Use “True Fruit” and you will be satisfied as well as the customer.

WRITE US FOR QUOTATIONS.

J. HUNGERFORD SMITH CO.

Rochester, N.Y.

Manufacturing Chemists.

Toronto, Ont.

Pure Paris Green

Guaranteed Above the Government Standard.

IN BULK AND PACKETS.

Pure Carbonate of Copper

For Spraying Fruit Trees, Etc.

The Fungicide Recommended by the
Department of Agriculture.

Packed in Kegs, Pounds, and in 3 oz. Packets
Two Dozen in a Box.

Glacial Acetic Acid

VERY FINEST QUALITY. In Demijohns, 80, 85, 90, and 95 per cent. In Wood, 80 per cent.

The Canada Paint Co. Limited, Montreal

Diseases of the Stomach.

COCAINE, PEPSINE, NARCEINE

The ANTIGASTRALGIQUE WINCKLER, is the most effective remedy known to medical science for Diseases of the Stomach, Cramps, Indigestion, Dyspepsia, Gastralgia, Vomiting after meals, and during Pregnancy.

DOSE: One or two tablets or pills fifteen minutes before meals, or when symptoms appear.

Winckler Antigastralgie Pills

COCAINE, PEPSINE, NARCEINE

Same direction as for the WINCKLER ANTIGASTRALGIQUE.

DOSE: One or two pills fifteen minutes before meals, or when symptoms appear. This is specially recommended to the people who can't stand the preparations lightly alcoholized.

WINCKLER, Pharmacist, Montreuil, Seine.
MONTREAL. M. DECARY.

TORONTO: The Druggists' Corporation of Canada, Limited

STIMULATING and REFRESHING LIQUEUR HOR.

KOLA, COCA and LIME GLYCEROPHOSPHATE.

A Stimulating Tonic. It Strengthens the Entire System.

Perfect specific for Albuminuria, Nervous Irritability, Phosphaturia, Neuralgia, Consumption, General Debility, Exhaustions.

WINCKLER, Pharmacist, Montreuil, ^{Near} Paris.
MONTREAL. DECARY.

TORONTO: The Druggists' Corporation of Canada, Limited.

WE would be very glad to supply the Drug Trade and Medical Profession with our Catalogue of Fine

Pharmaceutical Specialties....

Our Standard Fluid Extracts will compare with products of any other Laboratory on the continent.

THE

Martin, Bole & Wynne Co.

Wholesale Druggists, Winnipeg, Man.



Czarina Complexion Powder

Contains no lead or other substances poisonous to the skin, but is a delicately pure and delightfully perfumed complexion beautifier. As a toilet powder it has no equal.

—IN FOUR SHADES—

White, Cream, Brunette, Flesh.



FRANZ JAHN, 73 1/2 King St. W.
TORONTO, ONT

The only Pills which purge without pain

BOISSY'S SAPONACEOUS PILLS

LAXATIVE
PURGATIVE
REFRESHING

The Box of 40 Pills: 2/- free by Post.
Phie BOISSY, 2, Place Vendome, PARIS

Agent: M. DECARY, Pharmacist, Montreal

Pharmacy at Cape Colony.

Specially contributed for THE CANADIAN DRUGGIST.

If the standard of a pharmacy is to be taken from a Canadian point of view, then there are but two in Cape Colony. There are drug stores; any amount of them. The proprietors keep them as such; it pays better—I very much question whether elegant pharmacy would pay at all, outside of Cape Town. The man who runs a dirty little shop in some Malay or nigger quarter makes more money out of his "droppels" and other Dutch concoctions than the man running a better class store in a more civilized quarter. Even the Boer and Dutch

shop alone is about \$450 per month, salaries amounting to very near the same figures. "You must do a large business to meet such an expense," I said to the manager. "Yes, we not only do a large business but a first-class one. Our turn over in what you call 'holiday goods' is considerable. We carry a large stock of French, English and American perfumes and toilet requisites. Our dispensing business is also satisfactory. We fill doctors' prescriptions at a slight advance over recognized rates, our reason for doing this is obvious. If you have a prescription, and you want it filled cheaply, and at Petersen's, then you must take it to our retail store, which caters

second as to drugs, they certainly ran the Germans very close. Nearly all lines special to United States pharmacy were there to meet American doctors' prescriptions, and I was not a little surprised to find a full stock of fruit essences, manufactured by a New England firm.

My next call was on the wholesale store, where I met Mr. Petersen and Mr. Harry, purchasing principal, who undertook to furnish any particulars for African trade that I might require. He showed me over the store, the largest of its kind in Cape Town. The firm does a manufacturing business, and when I visited the establishment pill, capsule and other machinery was running full time.

"Your firm controls the African sale of a number of American lines, I think, such as Chamberlain's, Ayer's, Fellows, and Horlick's preparations. Do you control any Canadian lines, and are you inviting correspondence with other parts of the Empire outside Great Britain?" I asked.

"We control the sales of the patents you mention, also Pain Killer, which, as far as we know, is Canadian. We only see Canada through United States spectacles.

"You can tell the trade of Canada through the pages of THE CANADIAN DRUGGIST that we shall be pleased to hear from them, and we will give our candid opinion on any question they may put.

"We export Aloes, Buchu, Ginger, and other Cape products. Any Canadian house likely to buy from us direct we would foster business connections with. We are open to buy and sell."

This concluded the "C.D." man's talk with the manager of an African wholesale store.

The house of Messrs. B. G. Lennon & Co., Ltd., is a gigantic concern, with its head office at Port Elizabeth, and its branches in every town throughout South Africa. From Table Bay to Buluwayo you will find Lennons. They are the first to appear on the scene as townships spring up; they never leave while life exists around.



Africander prefers a dirty looking shop, strong physic, and plenty of it. "Some thing to clear my stomach out" is the usual request and he gets it.

The finest pharmacy in Cape Town is undoubtedly that of Messrs. P. J. Petersen & Co. The illustration herewith will give a good idea of the exterior, while the interior is fitted on the latest principle, no expense being spared to make it the best concern of its kind and to keep it an easy first.

A Scotchman, who has had both British and continental experience, controls the affair, assisted by one London and two Edinburgh men. The rent of the

for that class of trade. If you turn your eyes inside the only other place in this city that can call itself a pharmacy, you will see quite a mixture of color. This trade is not for us; we do not want it.

"Do you handle any Canadian products?" I next asked.

"Yes, Davis' Pain Killer and Fellows' Syrup, I think that is about all. We charge 1/6 for the former, 4/ and 6/ for Fellows' small and large respectively."

I had no need to question him as to American products. American perfumery, as I have pointed out, took a third place. I am not sure the American did not stand

But they are not friendly to the trade. Lennons is a monopoly. If you offend Lennons they will in all probability open a store opposite your very door, and a more up-to-date concern than your own. Lennons sway the retail trade at their own sweet will. Lennons can ruin small stores, they can dictate their own terms. This institution has a wonderful power. The tariff now in force is practically hostile to patent and proprietary articles. Twenty per cent. is collected in these lines, while prepared foods and all other goods handled by druggists, with a few exceptions, are passed at nine per cent., *ad valorem*. All medicines destined to the South African Republic are levied on at the rate of five per cent. providing the goods are consigned *via* Natal. Natal collects nothing on goods in transit, whereas the Cape charges amount to five per cent., to say nothing of excessive railroad freights.

To Entertain Members of A. Ph. A.

The committee of twenty-five appointed a short time ago to make arrangements for the annual convention of the American Pharmaceutical Association, which will be held in Baltimore the week beginning August 29th, held its meeting recently at the rooms of the Merchants' and Manufacturers' Association.

Henry P. Hynson, who is the local secretary of the association, presided at the meeting, with Dr. D. M. R. Culbreth as secretary. The principal discussion concerned the entertainment features, and after some debate the following rough draft was adopted: Monday, August 29th—A.M., meeting of the Council; P.M., reception to visiting delegates and ladies. Tuesday, August 30th—A.M. and P.M., business meeting of association; afternoon, ladies and visiting members shown about town. Wednesday, August 31st—Excursion to Annapolis Naval Academy and Bay Ridge by boat, dinner served en route. Thursday, September 1st—A.M. and P.M., business session. Friday, September 2nd—A.M. and P.M., business session; afternoon, visiting delegates driven through park; night, trolley ride to Gwynne Oak Park. Saturday, September 3rd—A.M., final business session. Monday, September 5th—Excursions to Gettysburg and Washington.

The discussion of ways and means also occupied considerable time, but the details will be left to the various committees for decision. It was suggested that

the invitation be in the shape of a pamphlet giving interesting facts about Baltimore, and that they be mailed generally to druggists throughout the country. Neither the headquarters nor the hall in which to hold the meetings has as yet been decided upon. Chairman Hynson's committee appointments were as follows:

Invitation—Henry P. Hynson, John F. Hancock and Dr. D. M. R. Culbreth.

Headquarters, Hotels, Hall, etc.—H. B. Gilpin, Charles E. Dohme, John C. Muth, J. Webb Foster and O. E. Webb.

Reception—A. J. Corning, John F. Hancock, Carl H. Bryan, W. L. Sohl and others to be named later.

Souvenir and Badges.—D. M. R. Culbreth, Horace Burrows, Charles Caspari, H. S. Dulaney, C. B. Swindell.

Transportation.—Louis Yakl, C. C. Bartgis and Charles Caspari.

Entertainment.—H. P. Hynson, George L. Muth, E. O. Street, Charles Caspari, Charles E. Dohme, H. P. Gilpin and O. W. Smith.

Finance.—Charles E. Dohme, H. A. Elliott, George L. Muth, M. S. Kahn and H. C. Winkleman.

Order of Business.—Dr. A. R. L. Dohme, Prof. William Simon, J. Fuller Frames, J. H. Hancock and John A. Davis.

Business Helps.

SEEDS.

A large number of druggists in Canada have found the handling of garden and flower seeds, and in many cases, field seeds a very profitable investment. We know personally of several retail druggists who make each year a very considerable amount of money out of this line. They are easy to handle, need not necessarily occupy much room, afford a good margin of profit and the demand for them is generally at a time when it is unnecessary to secure any additional help. There are a number of wholesale dealers from whom those who are contemplating this addition to their stock, can procure everything desirable and who will readily give information as to the kinds and quantities that the beginner should require. This line is of course not a new one by any means, but we believe that there are localities where they are not now kept by druggists, where it would at least pay to look into it and probably order a trial lot for the coming season.

Another reasonable line is that of
MIXED PAINTS.

Of this it may also be said that it is not by any means a new line, as a large number of the oldest druggists in Canada have carried them in stock for years, and the fact of their still continuing the lines shows that it is a profitable one and that their example may well be imitated in some sections where this trade has heretofore been monopolized by other dealers. In connection with this, the handling of paint brushes, artists' materials, tube paints, etc., naturally fits in and forms an important part of the stock-in-trade.

Items of Interest.

United States manufacturers of rubber goods have advanced prices about 20 per cent. owing to the increased cost on crude materials.

* * *

The *Pharmaceutical Journal* (Eng.) says that nearly 1,000 registered chemists of Great Britain deal to a greater or less extent in photographic materials and appliances.

* * *

The Belgium Government offers a prize of \$10,000 to any person that will discover a chemical that will take the place of phosphorus in the manufacture of matches.

* * *

The firm of Williams, Davis, Brooks & Hinchman Sons, of Detroit, Michigan, whose amalgamation we noted recently, have assumed the name of the Michigan Drug Co.

* * *

The Novelty Plaster Works Co., of Portland, Maine, has been organized with a capital of \$10,000.

* * *

Messrs. Simson Bros. & Co., of Halifax, N.S., have shipped a car load of their lime-juice for the Klondike trade.

* * *

A prominent departmental store of Toronto has been endeavoring to place large orders with the wholesale drug houses of this city, but we are pleased to say that in every case they have been refused.

CAJUPUT OIL IN CROUPOUS PNEUMONIA.—Sinha (Therap. Gaz.) has treated eighteen cases of croupous pneumonia with great success with oil of cajuput. The oil is given in the form of an emulsion in doses of five minims.

Send a Post Card to

LAWSON & JONES

LONDON, CANADA

if you want to secure one of the best and cheapest designs for a Calendar for next season. They have the sole agency for Canada of one each of the best English and German calendar manufacturers, and are not selling these goods through a number of sub-agents, but will sell them direct to Canadian merchants. European goods in these lines are known to be much better value than American, with an extra 25 per cent. reduction in tariff on English goods this year.

To secure them you must order early.

The firm's travellers will only have time to cover the whole ground of the Dominion once between now and the time for importing for 1899 season.

A Post Card sent to us at once intimating that you are interested in Calendars

**will cost you one cent
will not oblige you to buy
will oblige our traveller**

to show you the first in your town the finest line of Calendar Samples ever shown on the Canadian market.

Applications to see samples will be recorded in order of receiving them.

LAWSON & JONES, LONDON, CANADA

BOVRIL

It is a mistaken idea to assume that this truly great preparation of condensed food is useful only to Explorers, Mining Prospectors, and Surveyors, who require their food supplies put up in small bulk. Many a time it has in the sick room stood a rampart of defence

BETWEEN THE PATIENT and DEATH

And many a convalescent has been by its strength-giving and invigorating properties

HURRIED FORWARD TO RUGGED HEALTH.

Its use as a food brings health to the sick, strength to the convalescent, vigour to the healthy, and will furnish powers of

ENDURANCE TO THE ATHLETE

or to any person requiring to undertake

Great MENTAL or PHYSICAL STRAIN

The medical profession without exception recommend it in their practice.

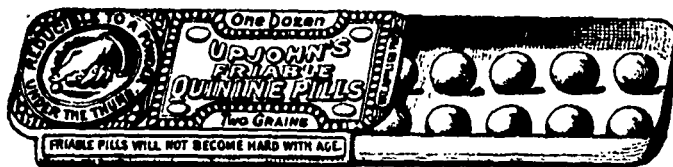
Prepared by

BOVRIL, LIMITED

27 St. Peter St., Montreal.

and London, England.

NOVELTY, CONVENIENCE AND PROFIT



THE NEW PACKAGE FOR RETAILING

Upjohn's Friable Quinine Pills

The Novelty

in the handsome, enamelled metal box, with slide cover, holding 12 pills, each in a separate compartment.

The Convenience

is in its size—fits the vest pocket or lady's purse—

giving a handy means for carrying quinine pills.

The Profit

is 300 per cent., when the package

is retailed for 15 cents. The superior quality of the pills and their unique quality of friability insure their ready sale.

Put up in attractive counter display containers holding one gross of boxes.

Order a Gross or 1/4 Gross from your jobber. They cost no more than the "solid" kind.

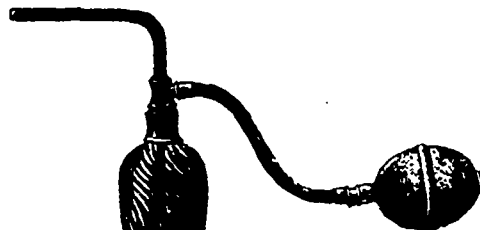
GILMOUR BROS. & CO., MONTREAL

Sole agents for Upjohn's Pills



English Seamless Nipples

- No. 1—Best quality, per gross \$1 75
- No. 2—Best quality, per gross 2 25
- No. 3—Best quality, per gross 2 75
- IN GROSS LOTS ASSORTED 2 15
- No. 5—Fine quality, per gross 3 00
- Special—No. 2—Bright goods, medium size, per gross 1 60



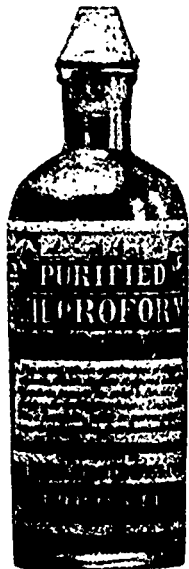
- No. 1—McKenzie Leader Water-Oil, 1 Tip, dozen \$1 50

(Quotations on application for quantities).

N.B.—British goods are now enjoying the Preferential Tariff.

The J. Stevens & Son Co., Limited

145 Wellington St. W., Toronto



LYMAN'S CHLOROFORM

Specific Gravity 1.49

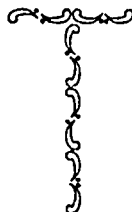
Recommended by *Lancet* and *Canadian Practitioner*, used exclusively in General Hospitals in Brantford and Kingston, and recommended in preference to any other make by all leading physicians who have tested it.

PRICE to Druggists, \$1.23 per lb. bottle. PRICE to Doctors, \$1.75 per lb. bottle.

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Adjustable Eye Protector

Used by Wheelmen, Street Car Men, Navigators, etc.—in fact all who are exposed to the inclemency of the weather. Positively the only protector made that fits in a cup shape around the eye and is Dust Proof.

If you cannot see without glasses, you can wear it over them

When not in use insert under fold of bicycle cap or sweat band of hat.

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A Medicine that sells on its merits. A Medicine that is guaranteed, and if, after using the entire contents, your customer is not satisfied, we cheerfully refund the money.

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"A malt tonic of surpassing value in its action on the nerves."
"Admirably adapted to the wants of ladies before and after confinement."
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Trade Notes

E. Beattie is opening a new drug store at Cranbrook, B.C.

Field, of Milton, Ont., has opened a new drug store, at Golden, B.C.

W. J. Fleming, druggist, Prince Albert, Saskatchewan, is advertising to sell out.

H. D. Peters has purchased the drug business of N. R. McKenzie, Newcastle, N.B.

The stock of W. Ruckler, druggist, Thamesville, Ont., was destroyed by fire March 28th.

A. D. Stevenson has purchased the drug stock of the estate of Wm. H. Clark, Milltown, N.B.

The Egyptian Rheumatic Oil Co., Limited, Halifax, N.S., have applied for letters of incorporation.

Reid Bros. is the title of the drug firm at Alberton, P.E.I., formerly carried on by

Wm. Skinner, senior member of the firm of Henry Skinner & Co., druggists, Kingston, Ont., died March 19th.

A fire broke out in the laboratory of Simson Bros. & Co.'s wholesale drug warehouse, Halifax, N.S., April 1st, doing considerable damage.

W. J. Bauld, corner Dundas street and Ossington ave., Toronto, has sold his drug business to J. H. Hallett, who will carry it on as a branch store.

The drug business of W. E. McCartney, Kamloops, B.C., is now known as the Kamloops Drug Co., Limited, W. E. McCartney being manager.

Reid & Coly are opening a drug and fancy goods business at Wardner, B.C. The drug department will be under the management of W. F. Reid.

C. H. Couen, 491 Parliament street, Toronto, has purchased the drug business of E. G. West, 568 Jarvis street, and will conduct it as a branch store.

J. H. McCollam, Milton, Ont., has sold his drug business to Higginbotham & Co., who will conduct it as a branch store under the name of Wickson & Co.

Geo. Marshall has removed his drug business to the corner opposite the one previously occupied by him. His address is now 310 Queen street east, Toronto.

S. T. White has purchased the drug stock of J. H. Dennis, Oakville, Ont., and

added it to his own, and has moved into the premises formerly occupied by Mr. Dennis.

Mr. Frank C. Simson, wholesale druggist, of Halifax, N.S., paid us a visit recently. He speaks of trade in the Eastern provinces as being "very good," (and fishing equally excellent.)

Messrs. Evans & Sons, Limited, have decided to revert to their old system of having two travellers in the city of Toronto. Owing to increase of business they find that one traveller is insufficient for their requirements.

Montreal Notes.

The drug business in Montreal is flat, and the general health of the city having been remarkably good all through the winter, physicians have not written as many prescriptions as usual. Some hopes are entertained of a revival after the 1st May. One thing is certain there is an enormous number of houses as yet unrented in this city.

Some pretty large orders for drugs have recently been filled in Montreal for British Columbia. They say the drug stores, and, in fact, all other retail stores are doing remarkably well in that enterprising province owing to the large influx of strangers on the way to the gold fields.

The Klondike fever does not appear to have struck Montreal pharmacists very hard. One drug clerk, out of employment I believe, got as far as Edmonton where he got stuck owing to the leader of the party, under whose banner he had enlisted, not turning up at the last moment.

Owing to the comparatively low price of camphor this spring, the druggists have reduced the price to 60cts. per pound in one pound lots.

Mr. Muir, secretary of the Pharmaceutical Association, has issued a circular, stating that the Council has decided, under the power given it by article 4029 of the Pharmacy Act, to raise the annual subscription for the year commencing May 1st, 1898, to licentiates, and physicians registered as pharmacists, \$10.00; certified clerks, \$5.00, apprentices, \$2.00.

Sale of Liquors by Druggists.

A number of deputations recently waited on the committee appointed by the Manitoba Legislature to formulate

amendments to the License Act of that province. Amongst others was one from the Pharmaceutical Association, who asked that druggists be permitted to sell liquor without a doctor's certificate. A number of cases of hardships were cited as having occurred under the present regulations, and Dr. McArthur, who is a well-known temperance worker, expressed the opinion that the application of the association would not meet with opposition from the temperance organizations, providing reasonable restrictions were provided.

Meetings Held.

The annual meeting of the Lyman Bros. & Co., Limited, was held in Toronto March 24th, Mr. H. H. Lyman in the chair.

The following directors were re-elected for the ensuing year:—

President, H. H. Lyman, Montreal.

Vice-president, F. S. Lyman, Q.C., Montreal.

Managing director, C. McD. Hay, Toronto.

Secretary-treasurer, J. Watts, Toronto.

The statement presented showed a very satisfactory business for the past year.

A meeting of the Provisional directors of the "Druggists' Corporation of Canada, Limited," was held in their office, Toronto, on Monday, April 4th, at which the following officers were elected:

President, J. E. D'Avignon.

Vice-president and manager, Wm. J. Dyas.

Secretary-treasurer, J. C. Hedley.

It was decided to call the first meeting of the shareholders for Wednesday, May 4th, to be held at the office of the Company in Toronto.

A "Stratford druggist" has forwarded us a clipping from a local paper, being an advertisement of the Barnsdale Trading Company, in which not only are prominent patent medicines advertised at "cut rate" prices, but a cut representing the box of a largely advertised pill is given. We hope the manufacturers of this article will take prompt measures to ascertain by whose authority this cut was made and furnished to these people, as the Stratford druggists and others in the west are "up in arms" at the audacity of someone.

Pharmacy in England.

Erasmic Soap—Effective Window Displays—Formaldehyde as a Proprietary Disinfectant—New Book of Formulæ—Publication of the British Pharmacopœia 1898—Influenza on the Wane.

(From our own Correspondent)

During a recent visit to one of the south coast winter resorts I noticed that many of the chemists have gone in for window displays of Crossfield's Erasmic Soap, which has lately been extensively pushed by the proprietors. The soap is wrapped in a violet-colored paper and boxed in an effective dark olive-green box. From a sort of family resemblance in the displays I should imagine that the accompaniments are supplied free with a fair order of soap. These consist of several yards of yellow silk for draping the sides and back of window, bunches of artificial violets and leaves, etc. The contrast is very attractive and invariably causes attention—the boxes of soap and piles of tablets being displayed to the best advantage. The drawback appeared to me chiefly in the fact that so many were doing the same thing; but the idea is one that I have repeatedly suggested in this journal. There is no reason why a druggist should not do the same sort of thing at periodical intervals with his own specialties, where the profits would be larger and his neighbor would not be likely to clash. For instance, an effective display of lavender water, lavender smelling-salts, lavender-scented cloudy ammonia, etc., might be followed by hair preparations. These should have bright labels, such as red and gold, and an elegant background of dark green plush. A complete series would include hair-wash, hair-restorer or dye, bay rum, brilliantine, liquid shampoo, pomades, etc. This display might be followed by one of a more medicinal nature—such as cod liver oil, cod liver oil emulsion, extract of malt, with cod liver oil and other similar household remedies. A friend of mine in the colonies is doing this, and at the same time each week he has an advertisement in the principal local papers drawing attention to the leading specialty which is being exhibited that week. This is illustrated by an electro, something after the style used by the Cuticura proprietors, which is not elaborate but understood at a glance.

I recently referred to the progress that formaldehyde is making as a disinfecting agent, and it has since occurred to me

that druggists might do well to introduce this article under a fancy name as a general disinfectant. For this purpose the 40 per cent. solution, which is usually sold wholesale, should be diluted in the proportion of half an ounce of formaldehyde in a pint of water. As the public do not like disinfectants to be odorless, it would be a good plan to add a few drops of terebene or eucalyptus oil, so that the diluted liquid has a slight odor. The general directions might include its use as a gargle, diluted with an equal volume of water, in catarrh and sore throat. For ringworm, it should be applied on lint and remain in contact with the affected part for ten minutes, two or three times a day. As a disinfectant and deodorant the liquid should be sprayed into the room once or twice a day in severe infectious cases, and a sheet saturated with the solution be suspended over the door. It is also advisable to place some of the solution in a food-warming apparatus, heated by a night light, placed in the centre of the room, so that the solution gently evaporates without boiling, and a steady current of formaldehyde is disengaged. In mild cases the solution could be allowed to spontaneously evaporate from one or two soup plates exposed in the room. About a tablespoonful of this liquid should be placed in the utensils in order to obtain perfect sterilization of the excretions. The disinfectant should receive a fancy name, and the utmost made of its special properties of not staining and harmless nature.

One of our trade journals, *The Chemist and Druggist*, is bringing out a book of formulæ, something after the style of that published several years ago by *The British and Colonial Druggist*. It is being edited by a member of the staff, P. McEwan, F.C.S., whose name is a guarantee of careful revision, and that practical common-sense will be brought to bear upon the mass of material at his disposal. But the fact remains that these published formulæ are, as a rule, of shockingly inferior merit. Too often they are devised by people who never think of examining the product critically and comparing it with what is already known. As an instance, the

journal in question not long ago published a formula for aromatic toilet vinegar that consisted merely of dilute acetic acid and a few common essential oils dissolved in an altogether inadequate proportion of spirit. The author probably concocted this on the spur of the moment, and certainly never could have tried it, as such wretched stuff would not pass muster anywhere. Many of these so-called new formulæ are only arm-chair amended editions of formulæ published years ago in various journals or books of receipts. The superior enlightenment of modern knowledge is shown by substituting citral for oil of lemon in a recipe for essence of lemon or heliotropia for extract heliotrope in a perfume. Those who have been called upon for preparations and have looked up all the published formulæ generally discover that nothing quite satisfactory has appeared, and that further experimenting is required to elaborate a really first-rate article. Naturally when this is obtained the result is not communicated broadcast.

The death of Sir Richard Quain, president of the General Medical Council, and, therefore, head of the Pharmacopœia Committee, will not delay the production of that long-expected volume. Messrs. Spottiswoode & Co., the Queen's printers, have received the contract for publishing the 1898 B.P., but do not expect that it will be ready until May or June. The volume will be some 50 pages larger than its predecessors in spite of the careful pruning process, and the extra cost of production is to be met by increased price. This has been fixed at \$2.50. In spite of all the congratulatory remarks that have recently been uttered by the members of the medical committee, that did not do the work, those who appear to take most interest in the new volume are students preparing for the pharmaceutical qualification. The wholesale houses are also apparently interested because the alteration in many of the forms will require for some time duplicate preparations being kept—those of 1885 and 1898 B.P. respectively. But I am assured by one of the members of the committee that this has been borne in mind, and that very little inconvenience is likely to result.

The influenza fiend has been busy, but nothing like a panic or even an epidemic has occurred. A good many cases are improperly attributed to influenza, and an ordinary bronchial catarrh is elevated into the more popular disease at the moment. Still the medical profession has been busy, and although many cases occur the treatment is now so clearly recognized that unless unfavorable symptoms of pneumonia or other complications ensue, the progress is usually quite satisfactory.

PILLS

WE have been manufacturing pills for over a quarter of a century, and during that time have kept up with all the advancements in this branch of pharmacy. Our processes of manufacturing are of the latest, thereby insuring pills which, in accuracy of division and superiority of finish, cannot be excelled. As to solubility, we will cheerfully submit our products for comparison with those of any manufacturer, believing we have attained perfection of product in this respect. Friability is no criterion whatsoever by which to judge solubility, for the most soluble substances known, such as rock candy, caustic potash and soda, most kinds of salts (organic and inorganic) in crystalline or compressed form, and even ice, can be easily driven into or through a board, yet no one questions the ready solubility of these substances in water, or in the stomach when they are properly prepared in medicinal doses. We do not claim our pills to be friable, and have never claimed them to be more soluble than friable pills, yet a simple test in water, artificial gastric or artificial intestinal juice, will prove their solubility to be even BETTER than friable pills.

We have the best facilities for the handling and manufacturing of special formula pills, and firms that have their pills made for them in large quantities would do well to correspond with us.

We invite inquiries from druggists who use regular stock pills in large quantities, for on such we make specially low figures. Our regular discount is 50 per cent. from our list to one and all druggists who buy assorted lots of pills. We list and stock a complete line of sugar and gelatine-coated pills, and can prepare specially in large lots any of our formulæ with different coating and in different shapes.

To conclude, our pills are made of the best materials, by improved processes, on the latest machinery; they are sold at the most reasonable prices (50 per cent. off list) and on the most reasonable terms, 90 days.

We invite inquiries.

Frederick Stearns & Co., Manufacturing Pharmacists,

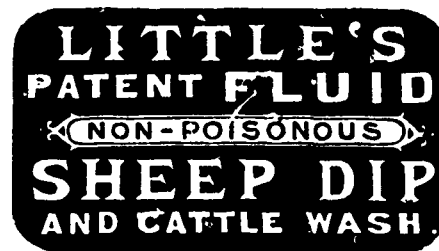
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Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

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

Removes the unpleasant smell from Dogs and other animals.

"Little's 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 is pronounced to be the cheapest and most effective remedy on the market.

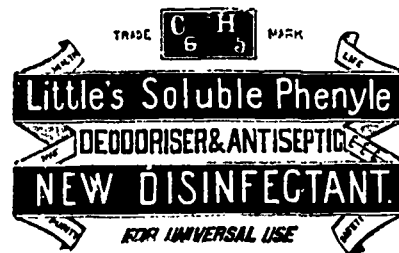
17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at 75c. Is wanted by every Farmer and Breeder in the Dominion.

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Sole Agent for the Dominion.

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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 Disinfectant, 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 neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals 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 gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

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RUBBER GOODS this spring?*



All the most successful ones are buying theirs from us. We have larger and more complete orders this year than we ever had before. For quality, style, variety, and finish we can't be beat, and our prices are right. Come along; send in your orders, and we will do the rest. All the wholesalers stock our goods.



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Emergencies : How to Treat Them.*

By W. H. GARRISON, Pearl, Ill.

My subject is "Emergencies : How to Treat Them," and at a first glance the pharmacist may well ask, "What has that to do with pharmacy?" And, on the other hand, the physician who has not comprehended in its fulness the great purpose and object of his calling may throw up his hands in horror at the thought of the pharmacist rendering aid to the injured and thus apparently depriving him of a portion of his bread and butter. But upon a moment's reflection the pharmacist will readily see that while a knowledge of "emergencies and how to treat them" may not throw any great light upon the scientific side of pharmacy, it may nevertheless have a great deal to do with the peace of mind of the pharmacist and with his standing in the community, and hence bear directly on his pocket-book, either for "weal or woe." In other words, it has to do with the practical rather than with the scientific side of our profession.

The American pharmacist is universally recognized as a public servant, and in order to maintain the dignity of his calling he must be ever ready to meet intelligently all emergencies, from the selling of a postage stamp at midnight to the administration of the proper antidote for hydrocyanic acid poisoning. But aside from all speculation, it is a fact that the pharmacist is the man who is often called upon suddenly, and when he least expects it, to come to the relief of some one who has met with some grave injury, either from accident or design; and if he is not informed to a reasonable extent, he is likely to make a blunder that will cost him his reputation and the unfortunate victim his life. Furthermore, there is absolutely no good reason why the pharmacist should bear having his hands tied with the claims of ignorance and allow his fellow-man to perish or valuable time to be lost, simply because a physician who has not the proper conception of his calling may think of objecting to the pharmacist rendering aid to his patient in cases of emergency.

Now, since the pharmacist is in point of fact the man who is most often called upon to render aid while the physician is being summoned, it becomes important that he should be fairly conversant with at least the principles underlying the proper treatment of emergencies that are

most often met with. The field of emergencies is a broad one, and it is beyond the province of this paper to comment on all of them or even to mention them. I shall, therefore, refer briefly to a few only of the more common ones, such for instance as the arrest of hemorrhage of traumatic origin. I consider this first, because the pharmacist is not infrequently called upon to render aid in emergencies of this nature, and if he will but act promptly and with judgment, he can not only save the life of the patient but he can also render the services of a physician more valuable in the after treatment of the wound, while at the same time bringing credit and satisfaction to himself.

BLEEDING WOUNDS.

Suppose a man is brought to your door with a frightful wound of the forearm which is bleeding profusely. What will you do? The man may bleed to death before a physician can be summoned; prompt action is necessary. The pharmacist need not stop to reflect as to what artery has been severed or as to whether the wound is incised, lacerated or punctured. These are all in order for the physician, but to the pharmacist the great indication is to arrest the bleeding until the physician arrives. And he must not be carried away by the confusion of the moment, else he will be seen grasping a bottle of Monsell's solution, glycerite of tannin or some other styptic, and very diligently pouring it into the wound—which would be a great mistake, as styptics are only useful in parenchymatous bleeding (*i. e.*, capillary oozing) and not in arterial or venous hemorrhage; and even in parenchymatous bleeding they are not to be used if other means are at hand for controlling it. On the contrary, the pharmacist who is properly informed and keeps his presence of mind will promptly tie an Esmarch elastic bandage around the arm just above the elbow, or if no Esmarch is at hand, he must simply use his common sense and make use of a piece of rubber tubing that he may have about his percolators, or if he has none of this he can run to the show case and take the rubber tubing off a fountain syringe and tie it tightly around the arm. The point to be remembered is that an elastic bandage of any kind is more efficient in controlling hemorrhages than one that is non-elastic, and if the pharmacist remembers this he can usually find means of applying it, even if he be forced to use his own suspenders.

After the bleeding is somewhat under control, the pharmacist should at once turn his attention to the wound itself. And right here is where he can make himself of immense value or of equally great detriment, depending on whether or not he understands the principles underlying modern antiseptic surgery. If the pharmacist protects the wound properly, he will not only not be supplanting the physician, but, on the contrary, he will be making the physician's work more valuable to the patient and more pleasant to the physician himself.

ANTISEPTIC DRESSING.

The pharmacist is not the judge as to whether the wound is or is not already infected, but it is duty to make an effort to prevent any further opportunities of infection after it comes under his care, and to this end he should simply cover the wound with sterilized gauze, if at his command, and if not, then he can quickly make an antiseptic solution of bichloride of mercury (1 to 2,000 or 1 to 3,000), dip some clean absorbent cotton into it and cover the wound, allowing it to remain until the physician arrives. At all events, he must make no attempt to close the wound, especially with ordinary adhesive plaster, as this is beyond his sphere and likely to result in damage to the patient.

And right here I want to condemn in no uncertain language the practice of covering a wound, be it ever so small, with adhesive plaster that has been moistened with the saliva of either the patient or the pharmacist. This may seem a trifling matter, but is a common practice among the laity, and even among persons who should certainly have better judgment and training. The practice is not only a filthy one, but is also the cause of no considerable amount of suffering, as the saliva is especially rich in pathogenic germs.

The treatment that I have described for a wound in the forearm may be applied with proper variation to wounds of any part of either extremity. But suppose the wound is in the neck, or some other locality where pressure cannot be utilized in the manner mentioned, then what shall we do? In answer it may be said that the underlying principle is the same. It is pressure that we want, and we may get it by packing the wound thoroughly with sterilized gauze or with clean absorbent cotton wet in an antiseptic solution, or if neither is available, then the pharmacist may place his thumbs in the wound, and thus close the bleeding vessels; however, this is a dangerous

*Read before the Illinois Pharmaceutical Association.

practice, and should not be resorted to when other means are at hand.

The pharmacist should cleanse his hands before making any attempt at dressing the wound, and this may be hastily done by washing them with soap and water and then dipping them in strong alcohol. These means are usually at hand and can be utilized quickly, and while they are by no means thorough, they are perhaps all that the pharmacist can make use of at the moment, unless he chances to have other antiseptic solutions available.

INSOLATION, OR SUNSTROKE.

I shall now refer to insolation, or "sun-stroke," as it is a subject that often interests the city pharmacists, and even occasionally the pharmacists of the country village as well. If a man is carried into your store prostrated by the heat, you can render valuable service both to the individual and to the physician by removing the clothing from the shoulders and chest of the unfortunate victim; in fact, strip him to the waist, place him in a perfectly recumbent position, and have some one pour cold water from a height onto his neck and back, while you hastily procure some ice from your soda fountain or elsewhere. Break the ice into small pieces, fill an ice-bag and apply it to the man's head. You may even add salt to it, thus making a freezing mixture; but it is of the utmost importance that such an application should not be allowed to remain in one position longer than a few moments, for in such an event the scalp would be frozen and devitalized, and serious injury result. If you have no rubber ice-bag, you can use an empty cork sack or a towel or such other material as may be at hand. The patient should be kept perfectly quiet until the physician arrives, and some stimulant may be administered, such as ether or ammonium carbonate.

SYNCOPE, OR FAINTING.

Another condition somewhat similar to the previous one is syncope from fright or injury or even possibly from joy, and the circumstances surrounding such emergencies are peculiarly calculated to the cause of the pharmacist "losing his head," so to speak, as they usually occur under conditions of great excitement.

When this accident occurs the victim in the majority of cases is a young lady, and she is, as a rule, promptly surrounded by a number of anxious friends or curious spectators or both, and the very first

impulse is to "lift her up;" but if the thoughtful pharmacist is present he will promptly and strenuously object to this proceeding, and will insist on keeping her in a perfectly recumbent position, and will at the same time loosen all clothing about the neck, chest and waist, and then sprinkle cold water over the face, neck and chest. The water should be sprinkled with considerable force, or poured from a height if the syncope is complete, but if only partial, then these proceedings may be unnecessary, and the administration of stimulating inhalations may suffice.

The most convenient inhalations are ammonia or amyl nitrate, but these are of little avail if the syncope is complete, as in that case the respiratory movements are almost absent. While these steps are being taken the anxious friends and over-curious onlookers should be urged to stand back and thus give the patient air, and in the majority of cases a few moments only will suffice to enable you to note evidences of recovery; the physician will arrive and the pharmacist's duty will have ended.

BURNS AND SCALDS.

In conclusion I shall refer briefly to the treatment of burns and scalds. True, there is but little for the pharmacist to do in this direction, but occasionally he is called upon for assistance in such accidents, and he should at least be aware of the fact that he can do but little, and thus avoid embarrassment. However, he may contribute quite considerably to the comfort of the victim by promptly adopting measures to exclude the air, and for this purpose a number of remedies have been suggested, but the time-honored carron oil possesses the great advantage of being nearly always at hand and is probably as efficacious as any of the newer remedies. Still we may add about one per cent. of thymol to the carron oil, and thus add to its antiseptic properties.

We should thoroughly saturate a piece of clean gauze or absorbent cotton with this preparation and cover the affected surface, and if the burn is not quite extensive, this will suffice to bring a great deal of relief to the sufferer. If, however, the burn covers a large surface, it may be necessary to give an anodyne in addition to the foregoing treatment, and perhaps the best one is morphine, either hypodermically or internally. This will give relief, and since the object of the

pharmacist's efforts is to give temporary relief, he will have accomplished it and can await the arrival of the physician.

I have now referred to a few of the emergencies that are most frequently encountered, and I wish to emphasize the fact that what I have said is intended for the pharmacist and not the physician, and while it covers, as I believe, fairly well the duty of the pharmacist in the cases cited, it would by no means cover the duty of a physician in the same cases. The pharmacist occupies a middleground between the physician and the layman, and while he is in no way competent to supplant the physician, and, indeed, has no inclination to do so, still, the public at large rightfully looks up to the pharmacist as a man of superior intellect and judgment, and expects him to be more competent to act in cases of emergency than is the ordinary man.

As I said in the beginning, time will not permit me to more than hint at the subject of emergencies in this paper, but I would suggest that a more extended study of the subject might be interesting to the pharmacist and would widen the sphere of his usefulness and influence.

BURNS AND SCALDS.

By Dr. A. Riza, New York.

On the fourth of July I had a serious case of burning in a boy of 12 years, caused by the premature explosion of some large firecrackers. The whole face and also the eyeballs were burned. I used the following prescription:

℞ Cocaine..... ʒ i-s
Boroglyceride..... ʒ ij

Sig.—Apply locally on absorbent cotton.

For the burns of the eyeballs:

℞ Atropine..... gr. iv
Cocaine..... gr. iv
Acid. oleic. gr. xl
Ol. Olivæ..... ʒ j

Dissolve alkaloids in the oleic acid by use of water bath and add to the olive oil, previously warmed.

As soon as the acute and painful stage was past I prescribed:

℞ Aristol.... ʒ ij
Ft. pulvis.

Sig.—Dust the parts.—*Medical Summary.*

It is estimated that over \$32,000,000 worth of patent medicines are sold each year in the United States.

The number of chemists and druggists in Great Britain, as shown by the register at the end of 1897, was 15,215.

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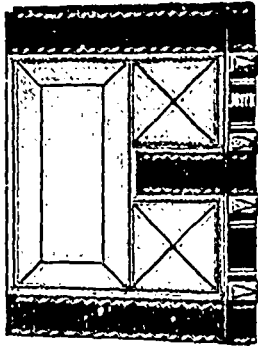
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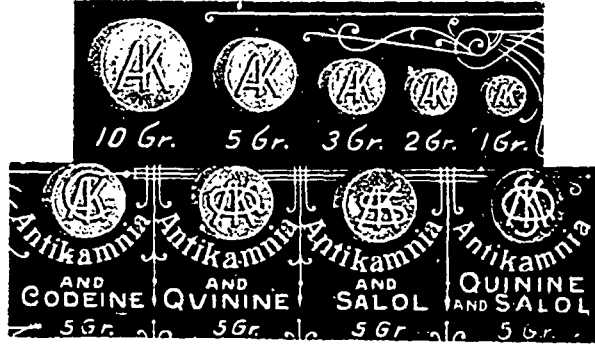
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Formaldehyde.

By GEORGE ROSE.*

Formaldehyde, formic aldehyde, or formalin, was discovered by Hofman in 1869. In the formation of starches and sugars from the carbon dioxide which the plant absorbs from the air, it is believed that formic aldehyde is formed as an intermediate product. Chemically, it is prepared by the limited oxidation of methyl alcohol, or when calcium formate is subjected to dry distillation. The gradual oxidation of methyl alcohol occurs when a stream of air saturated with the vapor of methyl alcohol is drawn through a tube containing a copper spiral or platinized asbestos.

Formaldehyde is a powerful germicide, due to its combination with gelatinous and albuminoidal substances; in consequence of its chemical reaction with the various volatile products of decomposition it is a decided deodorant. Its great antiseptic properties were discovered by Berlitz and Trillat, who found that an addition of 1 in 50,000 was sufficient to prevent the development of bacteria in meat-juice. Leow recognized it as a powerful poison to vegetable protoplasm. Its non-poisonous character makes it extremely useful in preserving certain preparations, and in pharmacies, especially dispensaries where there is much dispensing done, it can be used in some cases with good results. This is particularly so where large quantities of fermentable mixtures have to be kept readymade, and often enough to last some days or even weeks.

In hospital dispensaries and establishments where a large amount of dispensing has to be done in a very short time, it is necessary to prepare beforehand many preparations which, in some cases, must last a considerable time, and, as may be expected, a preservative of some kind must be used, such as alcohol, salicylic acid, chloroform, and now formaldehyde. The addition of alcohol is costly, and, unless a large quantity be added, the preparation becomes sour, owing to the action of micro-organisms and natural ferments. Salicylic acid is objectionable in many ways. Camphor and chloroform have a taste and smell which many cannot tolerate, so there still remains to be found a preservative that can be used without having any particularly objectionable points. I have for a considerable time used chloroform, and, experimentally, formalin, in

all cases where my experience has taught me that a preservative must be used, such as in making fresh infusions and decoctions sufficient to last perhaps weeks, in the solutions of the alkaloids; mixtures which, if dispensed as written, would keep only a few days, whereas they are often expected to remain good for two or four weeks; mixtures which contain organic substances in which bacteria grows with extraordinary rapidity. Those containing ergot are very common in my case; these at times assume the appearance of mucilage in a few hours, and here something must be done. Almond-mixture is one which ferments after a few days, and patients often have enough to last them two weeks, and nothing keeps it so well as formalin—1 in 10,000 [of the 40 per cent. solution] will keep it sweet for weeks and cause no inconvenience to the patient. Milk is another fluid which gives trouble in hospitals, it often goes bad during one night; but as small a quantity as 1 in 50,000 will keep it for that time and give no unpleasant symptoms to the patients. Milk required for future analysis can be kept sweet for some weeks by adding four or five drops to each 100 c.c. It is stated to have the curious effect of slightly increasing the total solids in some cases, due probably to the conversion of milk-sugar into dylactose.

For infusions and decoctions 1 in 1,000 to 1 in 3,000 answers best; but, taking into consideration the powerful effect formalin has on animal tissue, and how intensely irritating is even a weak solution, it is doubtful if the former strength can be adopted until its action on the human economy is better understood. When it is used for concentrated preparations the case is somewhat different, and no harm can possibly result from its use. It has the advantage of having little taste or smell in such small quantities, and thus differs from chloroform. For infusion, which it is an advantage to keep one or two weeks, it is decidedly useful; but when required to be kept longer nothing answers so well as chloroform, 1 in 500 or 1 in 1,000, such as for gentian, calumba, quassia, either single or four times the strength of the Pharmacopœia; these, when diluted, have little of the smell or taste of chloroform. When patients are put on digitalis, jaborandi, and a few others, and only small quantities of stock need be made, formalin answers well. Its power to destroy the bacteria of fermentation and putrefaction is its strongest point, and is thus of

great service in pharmacy for preparations which have a tendency to ferment. In breweries it has been found useful on account of its arresting secondary fermentation, although not interfering with the resulting quantity of alcohol produced; it also reduces the acidity, and thus enables the process to be conducted at a lower temperature. It cannot be said it is systematically adopted in this country for this purpose, but it has been used with marked success on the Continent. Antiseptic agents were used to preserve beer and other fermented fluids from the ravages of aerial ferments long before Pasteur explained the true cause of fermentations, and were protected under patents; hydrofluoric acid was one.

In the manufacture of mineral waters of a sweet nature it is impossible to exclude the germs of putrefaction from the materials and apparatus; consequently much turbidity is the result, and great is the loss to the maker. Most of the preservatives in common use have therapeutic activity or corrosive action on the metals. It is claimed that formalin will do away with these objectionable points, and 1 in 20,000 is considered sufficiently strong for the purpose. For washing the utensils 1 in 1,000 should be used; the mixture can be used over and over again, as long as it retains its characteristic odor.

Formalin has not been much used in medicine. As a spray and paint it has been found useful in diphtheria— $\frac{1}{2}$ to 1 per cent. as a spray and 1 in 500 as a paint. Glycerine agar inoculated with the bacillus and sprayed with formalin gave no growths. As an inhalation diluted with carbonic-acid gas it has been found beneficial for consumptives; if used too strong it may bring on hæmorrhage, etc. In ophthalmic surgery a 1 in 2,000 solution has been found useful for injury to the cornea and various forms of ulceration. Applied three times at intervals of two days it has been found useful in ringworm. In dentistry its weak solution is antiseptic and astringent.

It is excellent for keeping urine required for future analysis—it will keep it sweet for weeks. For preserving vegetable products a 1 to 2 per cent. solution has been found best; little of the fresh appearance is lost, and the odors are quite distinguishable after many months. Gelatine exposed to the vapor of the 40 per cent. solution for twenty-four hours becomes like leather, and insoluble in boil-

* A paper read to the Chemists' Assistants' Association, February 17th (slightly condensed).

ing water: it is thus useful for the preservation of the cultivations of bacteria. In nutrient gelatine for biological specimens it must be used early in those cases where the bacteria liquefies the gelatine. It is used extensively for hardening tissue, and saves much time; it does not cause shrinkage of the cells. Tissue $\frac{1}{2}$ to $\frac{3}{4}$ inch thick hardens in twenty-four hours in 40 per cent. solution; for loose tissue it is best to use a 5 to 10 per cent. solution. A saving of time may also be effected by making the mucilage with formalin-water, and placing the specimen in direct. For preserving specimens a 2 per cent. solution is now being used in many places instead of methylated spirit; it does not require to be changed very often, and is thus more economical. After an operation the specimen may be placed in the solution, and will keep in good condition until an examination of it can be made. Many specimens have been spoilt in consequence of the evaporation of the spirit which was formerly used. Surgeons now rinse their hands and instruments in a weak solution prior to and after operating, and 1 or 2 per cent. is about the desired strength. It may be mentioned that it is very painful to cuts and abrasions of the skin.

It will be found most useful for disinfecting rooms, and can be used in the form of a spray, or placed in various parts of the room in shallow vessels. Lamps can be obtained for using the solid paraformaldehyde; they are specially constructed, and, by an ingenious method, moist carbonic-acid gas is made to pass over the slowly vaporized solid, converting it into formic aldehyde. These will be of service to those distressing cases of cancer which have to be isolated on account of their unfortunate condition; and if the pharmacist can recommend anything to destroy the unpleasant odor which is characteristic of them, he confers a boon on the sufferers and attendants that is not easily forgotten.—*Chemist and Druggist*.

HYDROGOL AND ORGANOSOL.—By these names are introduced (Pharm. Post) two solutions of colloidal metallic silver, the first being prepared with water, the second with organic solutions, for instance, alcohol. They are expected to replace other silver preparations for hypodermic use. The solutions are stated to be prepared from silver nitrate by means of reducing agents.

Medicinal Uses of Coffee.

It is said that the first use of coffee by man was made by the prior of a convent. He was told by a goat-herd of the exciting effects of the berries when eaten by his goats; so he thought he would try them and see if he could not keep his monks awake during what should have been their vigils. He succeeded admirably, and brought coffee into the way of earning its world-wide reputation. The most active principle of coffee is caffeine; it contains also certain oils, which no doubt have a share in its action. Many years ago a claim was made that green, or unroasted, berries had a great value in liver and kidney troubles. One enthusiast prefers a mixture of two parts Mocha and one part Martinique and Isle de Bourbon coffee. He puts about three drachms of this in a tumbler of cold water and lets them strain and infuse over night. The next morning, after straining, the infusion is taken on an empty stomach the first thing after getting up. This medical authority cites many cases of kidney and liver colics, diabetes, nervous headaches, etc., which, though rebellious in all other treatment for years, soon yielded to the green coffee infusion. The remedy is a very simple one, and well worthy of a trial. Another use of coffee medicinally is in nausea and retching. For that purpose a strong infusion is made of the berries which have been ground and roasted, and it is sipped while very hot.

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Their therapeutic value depends upon the presence of sulphate of magnesium, sulphate of sodium, of which the former

is greatly in excess, and a small amount of lithia.—*Milwaukee Medical Journal*, December, 1897.

An Official Pronouncement.

Under date of February 1st, Mr. John Mackenzie, Official Bacteriologist of the Ontario Board of Health, reports the following result of his action in subjecting Antitoxin purchased on the open market to bacteriological test:

"I beg to report to you the result of a test which has been made during the past month, upon Messrs. Parke, Davis & Co.'s Antitoxin. This firm has repeatedly requested that such a test should be made, but routine work in the laboratory has been so great that it has been impossible to get the time until recently for its completion.

"The sample tested was bought in the open market, at a drug store, and the test applied was one to determine if the sample contained the number of antitoxic units indicated by the label.

"The label claimed that the bottle contained 1,000 units; the result of the test showed that it contained over 1,200 and under 1,500 units, probably nearer 1,500 than 1,200 units. This shows that the Antitoxin was reliable, as it is necessary to place in the bottle a good margin of units in excess of the label strength, so that the loss of units which takes place by keeping, may not be so great as to bring it in a reasonable time below the amount indicated by the label.

"Antitoxins differ from other drugs in this respect, that there is no danger in over-dosing; the danger is rather the other way, and the rate of decrease in strength due to keeping is determined by factors which are largely not controlled by the manufacturer."

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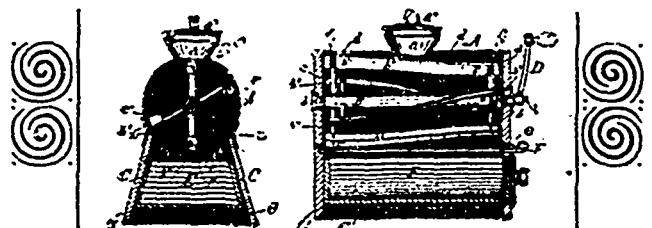
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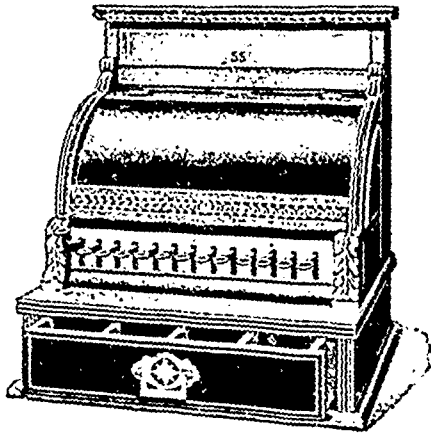


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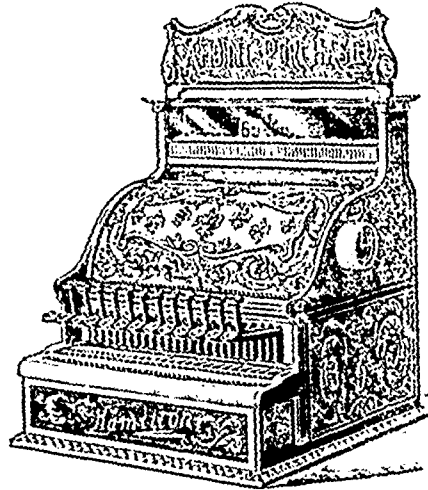
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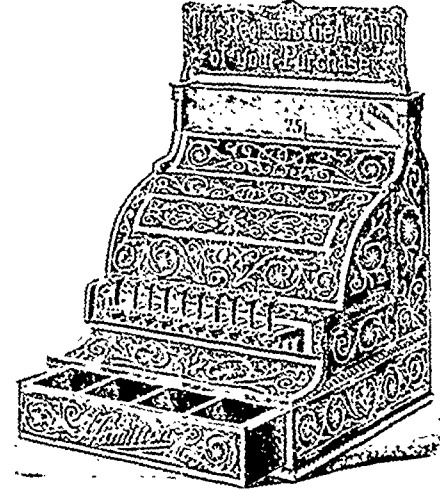
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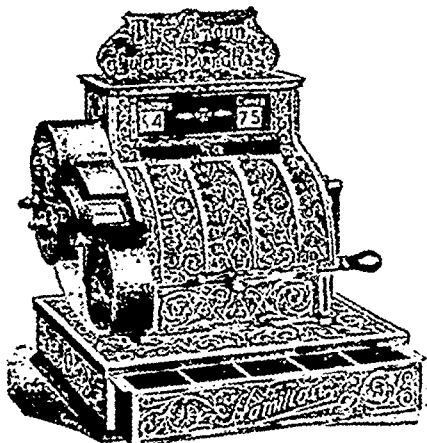
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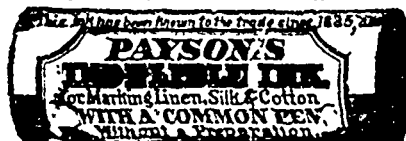
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The Selection of Photographic Apparatus.

Now that the days are lengthening, and spring with its accompaniments of bright weather and sunshine is almost upon us, the amateur photographer will begin to think about unearthing his apparatus from winter quarters and preparing it for work again; while there will be those who, tempted to investigate the great unknown in photography, will be considering the question of purchasing suitable apparatus with which to pursue this delightful pastime. For the latter this short article is written, offering suggestions and advice in the matter, while a word or two will also be given to those already advanced in the art.

It is so often the case that the beginner, when looking about for apparatus with which to commence photography, purchases a hand camera frequently at considerable expense. This is the worst possible procedure, and is the direct cause of keen disappointment, and often of the abandonment of the hobby altogether. It should be remembered that the successful use of the hand camera can only be accomplished after a complete mastery of the processes of development in instantaneous work has been obtained, and it is courting failure for any one with practically no knowledge of photography to commence work in this way.

The beginner is, therefore, strongly advised to purchase at the outset a good field camera, for with it instantaneous pictures can always be taken, if desired, by means of a shutter attached to the lens; while there are makers who construct cameras which, although essentially designed for use on a stand, can with equal ease be used in the hand. As to the size of plate to be carried, that of most general utility is undoubtedly the half plate, because, in the first instance, when the beginner will be experimenting with his apparatus and making preliminary trials, a smaller plate may always be used—and, in fact, is recommended—by means of carriers in the dark slide.

The amateur with a moderate sum at command will naturally require apparatus at as reasonable a figure as possible. There is no advantage in going to the very extreme as regards cheapness, but under such circumstances a complete outfit should be purchased in one set. A thoroughly reliable half-plate set with good camera possessing modern movements, rapid rectilinear lens, book form dark

slides, etc., may be obtained through a good photographic house for five guineas, and is capable of turning out really first-class work.

To those budding amateurs possessed of a longer purse, and who are desirous of commencing photography under the most favorable conditions, each piece of apparatus should be purchased separately.

The principal feature of every photographic outfit is the lens, and in selecting this much care should be exercised. A couple of good R.R. lenses may be purchased, one having a focus of about 7 inches, for landscape work, and one of about 4 inches focal length, for wide-angle work or photography at close quarters. Good foreign lenses can be procured at the most reasonable prices, and they are instruments, too, which are capable of doing splendid work, but there is always a certain amount of risk with them. Where price is no object the beginner is recommended to invest in a lens of modern make, such as a Dallmeyer's Stigmatic, which can truly be termed a universal lens; in fact, as the maker asserts, it is capable of doing the work of four lenses. A lens of this description, covering at its full aperture a quarter-plate, can, by inserting a smaller stop, be made to cover a half-plate, thus becoming at once a wide-angle lens; or by removing the front combination the focal length is doubled, when it may be utilized as a long-focus landscape lens. Every lens should be kept in a separate chamois leather bag, free from dust and grit, and when cleaned it should be carefully wiped with a very soft old silk handkerchief.

As regards the special form of camera, the best for every purpose is one built with square bellows, and although the beginner may not at first appreciate its value, the time will arrive when, having become proficient, he will find such a camera simply indispensable. Cameras with conical bellows are generally lighter in weight and more elegant in appearance, but when they are being used under extraordinary circumstances, where it becomes necessary to employ the rising front or swing back to its utmost limit, parts of the image are cut off, and troubles soon arise. Then, too, when using a wide-angle lens, it is very seldom that a camera of this description can be satisfactorily and easily manipulated, and in other ways the tapering bellows becomes a source of annoyance. In the matter of the tripod the principal points are that it should be perfectly rigid when set up, not liable to

vibration; and nothing in it should be sacrificed to lightness.

When the beginner has completed the outfit he should become thoroughly acquainted with the working of every part of the apparatus by setting it up and mastering the details of manipulation; and if a photographic friend be available, a few lessons should be taken. The preliminary chapters of a work like the "Ilford Manual" are very useful for conveying information in this respect.

To the amateur who, having made progress in photography, is desirous of purchasing a hand camera, a few words of advice may not be out of place here.

In the first place it should be decided whether roller films, flat films, or glass plates are to be used. The writer still adheres to the latter, but most hand cameras designed to carry plates will admit of the employment of flat celluloid films. When selecting a hand camera the following points should more particularly be considered:

- (1) The lens.
- (2) The method of plate changing.
- (3) The shutter.
- (4) The particular form of shutter release (the trigger).

According to the quality of the lens will be the price of the camera. The ideal lens for hand-camera work is one which will give absolutely sharp images to the corners of the plate when used with the full aperture of about F.6, allowing exposures to be made with a quick shutter and in a dull light. Most hand cameras are fitted with lenses of much too short a focus. If possible, one having a focal length of not less than 5 inches for a quarter-plate should be chosen, provided with an iris or revolving diaphragm. The great objection to so many hand cameras is that the lens is built into the body, being extremely difficult to reach for cleaning; whereas if it be simply screwed into its flange in the ordinary way it can not only be taken out easily and cleaned when necessary, but it may, if required, be used in a stand camera, in which case, of course, an extra flange would have to be provided. There should also be a flap or sliding panel to protect the lens from dust when not in use.

Regarding the method of plate changing, in the writer's opinion there is nothing equal to the changing bag, where the fresh unexposed plate is transferred to the bag by means of a plate-lifter and shifted into position in front. The whole operation is under the worker's control, and there is

practically no chance for the plate to become fixed. Dark slides for the hand camera have their good points, but in many respects it is doubtful if they are superior to a well-made magazine. There is one particular, however, in which they are extremely useful, in that they may be filled with plates of different speeds and time and instantaneous exposures made at will, whereas if this were done in a magazine camera there is great danger of losing their whereabouts. Some cameras have an extra chamber, into which each plate falls as it is exposed. Although this is a fairly reliable method on the whole, the size of the camera is somewhat increased.

There is no doubt but that the roller-blind shutter is the best for hand camera work, and very few are made nowadays without it. Metal shutters actuated by springs are very uncertain. The springs are generally spirals of brass wire, which soon become weak, causing the shutter to work slowly and sometimes to fail altogether. The question of a shutter release may seem so trivial a detail as to be not worth considering, but in point of fact, it has a most important bearing upon the subject, and is more often than not the cause of blurred images and spoilt plates. The proper place for the trigger is undoubtedly in front of the camera, so that it may be pushed backwards towards the lens, thus reducing risk of vibration to the minimum. Some releases are placed on the right-hand side of the camera, and are intended to be pushed downwards with the thumb. This device is not a good one, as often in the excitement of releasing the shutter the camera receives a tilt upwards from beneath. The pneumatic ball, of course, is always good, but it is a question whether the long rubber tube is an advantage in hand camera work.—*Phar. Journal (Eng.)*

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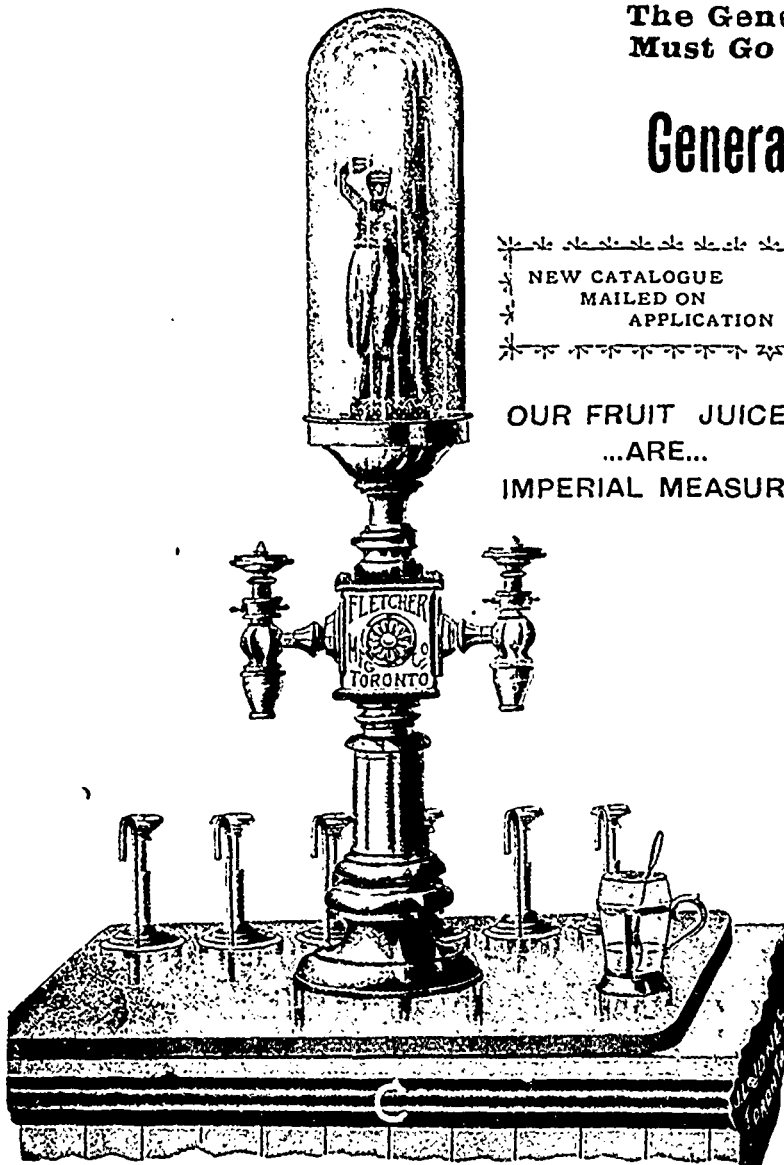
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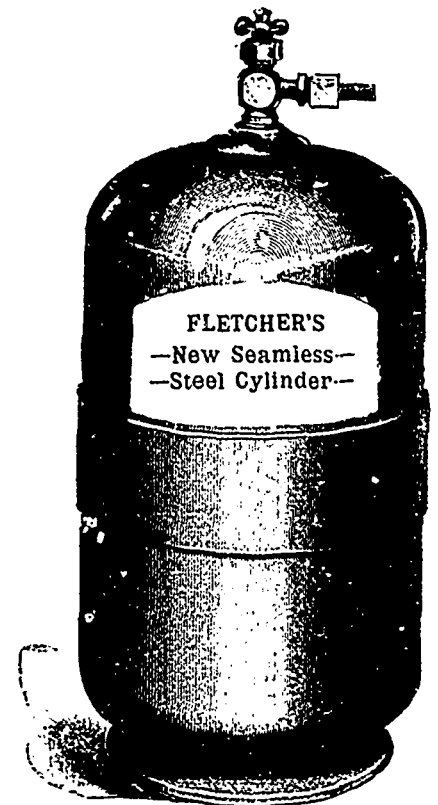
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Bacteriology as a Side Line for Chemists.

By F. PILKINGTON SARGENT, Ph.C.

Of late years much has been done both in England and America to develop a more professional spirit amongst chemists and druggists. As a result of these efforts we find that they are striving to make more use of their education than heretofore by engaging in profitable scientific pursuits, which, however, can only be profitable to chemists in certain neighborhoods and with a certain class of clients. One of the most interesting and fairly profitable of these subjects is bacteriology, and as the practice of it requires care and cleanliness more than expensive apparatus, it can easily be brought within the reach of the chemist. A medical man often has sputum which he wishes to be examined, or the local authorities may require a bacteriological examination of water, etc.; and there is no reason why a chemist, with a little experience, should not perform these operations, and so add a little to his income. I will endeavor to indicate the lines on which intending students of the science should proceed.

Bacteria are minute, colorless cells, generally transparent, and they contain no nucleus. Their contents are often homogeneous, but sometimes are oily and granular. They may be round (cocci), united in groups of eight (sarcinae) or in chains (streptococci), or they may consist of minute straight rods (bacilli), the smallest of which are the influenza-bacilli. Sometimes the rods are spirally coiled, forming spirilla. The pellicle often found on decomposing organic matter is composed of the extended cell-membranes of the bacteria which have conglomerated. They are reproduced by fission or splitting, but often by means of spores, which are formed either in the centre or less frequently are terminal. The products of their metabolism are numerous; sometimes coloring-matters are produced (never chlorophyll), very often foul-smelling liquids; though in some cases, as in the bacillus of Asiatic cholera, a pleasant-

smelling liquid is excreted. These bodies, when existing in quantities, are fatal to the bacilli producing them. They may be obtained in various ways—by boiling pure cultures of the required bacilli, filtering and purifying by means of alternate solution in dilute alcohol and precipitation by absolute alcohol, in which they are insoluble. It may be of interest to note the method by which Koch obtained his tuberculin. He bred the tubercle-bacilli in an alkaline solution of veal (taking precautions that no other bacilli were present) containing 1 per cent. of peptone and 4 to 5 per cent. of glycerine. This solution, having received the seed-culture, was kept at a temperature of 38° C. for three or four weeks, when a pellicle formed; this broke up in three or four more weeks, and the ripe solution was filtered through infusorial earth. Such bodies are alleged to have a very powerful physical action, and are supposed to be of great therapeutic value in cases where the bacilli producing them are concerned.

In the study of bacteriology the principal processes are the preparation of media and the sterilization of instruments, etc., used in the preparation and inoculation of such media. Sterilization is rendered more difficult by the powerful resisting action of the spores, which are able to retain their vitality at a temperature far above that at which the parent bacteria would succumb. The most efficient sterilizer for instruments is the Bunsen flame. Where, however, from the nature of the tools, it is inapplicable, they should be heated in an oven to 170° C. for half an hour, or in a steam-bath for one hour, the last-named being best for such things as cotton-wool, great care being taken in drying. To sterilize gelatine it must be heated on a water-bath for a quarter of an hour daily, during three days. If heated longer at once, it loses its power of solidifying. Blood serum so treated would decompose, hence it must be heated to 55° C. for three or four hours daily during a week. Sometimes it is necessary to use chemical sterilizing agents, the best for the purpose being 0.1 per cent. solution of corrosive sublimate. Carbolic acid, lime, chlorine-water, osmic acid, etc., are also used. Chloroform is also a very useful sterilizing agent, owing to its low boiling-point. In using chloroform to sterilize a liquid, it is mixed with the liquid, allowed to stand some days, and then heated to 62° C. for one hour, this process killing both bacilli and spores.

An incubator is also required. This is simply an oven, preferably with felt sides, glass doors, and a thermo regulator attached, capable of being retained at a temperature of about 37° C. Several bell-jars, square glass plates, water-baths, hot-water funnels, and test-tubes complete the apparatus required, it being taken for granted that all chemists possess a fairly good microscope.

To fit up a bacteriological laboratory for advanced work requires an initial expenditure of about 10%, invested thus:—

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Sterilizer	2	10	0
Incubator	4	0	0
Counting-apparatus	0	15	0
Coddington lens	0	15	0
Regulators, thermometers, Pasteur's flasks, etc.	2	0	0

As to the preparation of media and cultivation of the micro-organisms, gelatine media are unmistakably the best for a beginner, and the following process is the one generally recommended for its preparation:—

Five hundred grammes of good meat, free from fat, are chopped fine and allowed to stand in 1,000 c.c. of water for twenty-four hours; the liquid is then filtered and heated on a water-bath for forty minutes to precipitate albumen, and again filtered, making up to 1,000 c.c. with water if necessary, then adding 100 grammes gelatine, 10 grammes peptone, and 5 grammes of common salt, allowing to stand for a while, then heating on a water-bath to dissolve the gelatine, keeping the bulk made up with water. Now the reaction of the liquid is noted, and, if acid, neutrality is produced by means of caustic soda. It is then filtered through paper in the hot water funnel, and if the filtrate is not clear a little egg-albumen is added, the fluid is boiled and refiltered.

Some of this prepared solution is then introduced into test-tubes (about filling a quarter of the tube) carefully by means of a funnel, none of the mass being allowed to touch the side of the upper part of the tube. These test-tubes must have been sterilized by immersion in boiling water for one hour. Having introduced about 10 c.c. of the medium, the tubes are plugged with cotton-wool, which has the remarkable property of preventing the passage of bacteria, and kept heated in steam for a quarter of an hour daily for five days. They are then ready for inoculation—that is, for the insertion of seed-cultures containing any particular bacterium. These seed-cultures are introduced by means of a sterilized platin-

um wire, which is first inserted in the sputum or other body from which it is desired to extract the bacilli, and then inserted into the gelatine in the tube, which is held mouth downwards during the temporary removal of the cotton-wool plug. Plate-cultures, potato-cultures, etc., as not being suitable for one just commencing the study, need not be more than mentioned. Some time after inoculation, varying with different bacilli, a white or coloured streak will be observed to form in the course of the platinum needle. This is due to the formation of colonies of bacilli, and if another tube be inoculated from one possessing such a streak, a culture will be obtained of greater purity than the first, and by continued reinoculation a perfectly pure culture will be finally obtained, the characteristics of which can then be definitely ascertained.

Having now briefly sketched the main points in bacteriology, I may refer to its value to the chemist. It is impossible to describe in detail here the many processes involved in the science, but the two which are of most general interest may serve as types. The value of a bacteriological examination of drinking water is not very great since it is almost impossible to distinguish in a reasonable time the pathogenic microbes from those which are non-pathogenic. The total quantity of microbes present in a sample of water is therefore all that is generally required, for, as Professor P. F. Frankland has pointed out, if there are a large number of microbes of any description present there is a greater chance of harmful microbes being there than if only a few were present. As to how many colonies might be allowable opinions differ. Miguel says a good sample ought not to yield more than 10,000 colonies per c.c.; other writers, however, give a lower estimate. If a sample of water contained, say, over 0.1 per million of albuminoid ammonia, and gave over 5,000 colonies per c.c., then it would certainly not be safe for human consumption.

A sample of water is obtained in a sterilized bottle, and the examination of it must begin at once before the microbes have time to multiply. One cubic centimetre is well mixed with some of the melted gelatine prepared as above and poured over a square glass plate under a bell-jar, both sterilized. When the gelatine has solidified the plate is placed in such a position that it may be retained at about 22° C. for several days, when numerous colonies are found to have de-

veloped. These are then counted by placing a glass marked into squares, and called Woffhugels counting-plate, over the gelatine, though not touching it, and examined by means of a lens. The number of colonies in one square being noted, this number multiplied by the number of similar squares on the plate will give the number of microbe colonies in 1 c.c. of the water.

In the examination of milk the quality rather than the quantity of microbes is of importance, as also in the examination of the sputum of suspected phthisical subjects, which is carried out as follows: A little of the more dense portion of the sputum is spread on a cover glass by means of a needle, and dried a little. It is then placed in an aniline water-solution of fuchsine, gently warmed, and allowed to stand for five minutes. It is then removed and placed in a 3-per-cent. solution of hydrochloric acid in alcohol for one minute. This removes the stain from all but the bacilli. It is now rinsed with water, and a drop of aqueous methyl blue is poured over it, when it is again washed, and dried by quickly passing it through the flame of a spirit lamp about three times. It is now ready for examination. If the *bacillus tuberculosis* be present, numerous rodlike bodies of very characteristic form will be noted. They generally appear to be more or less ringed, their marking being brought out wonderfully by the double stain. To examine milk, one drop of the suspected milk is evaporated on a cover glass with one drop of a 1-per-cent. solution of sodium carbonate, which saponifies the fat, and is then treated as above. Did space permit, many more examples might be brought forward to prove that bacteriology is a most interesting, appropriate, and possibly a profitable science for the chemist to pursue; and, particularly to the numerous students of photomicrography, a field is opened up which cannot be surpassed in providing material for delicate work.—*Chemist and Druggist.*

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Around the edges of the burns, after the ointment is spread, he dusts diiododithymol (Aristol) in powder form. In burns of small extent, he employs the powder only. Cleanliness must be thorough whenever the dressing is changed. One of the great advantages of the foregoing is its freedom from poisonous effects. There is some smarting at first, but it soon passes off.—*Medical Age.*

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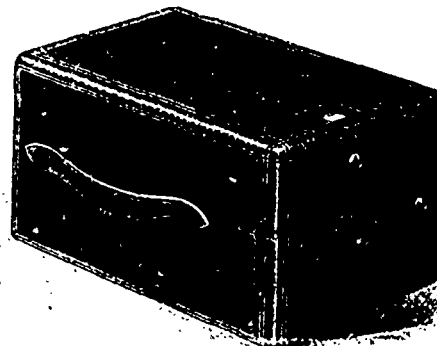
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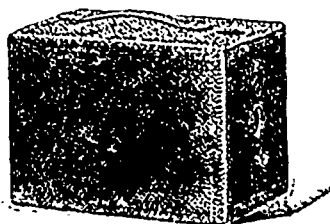
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Photographic Notes

ALUMINIUM TO REPLACE MAGNESIUM.
—M. E. Demole, in a communication to the Société Française, recommends aluminium as much superior to magnesium for flash-light work. He found that the reds and yellows in a bouquet of flowers came out in almost ortho-chromatic relation when aluminium was used as the illuminant—a much superior result to that with magnesium being secured. Although a mixture of potassium chlorate and magnesium or aluminium serves very well. M. Demole finds the following to be superior, the mixture burning with a rapidity which leaves nothing to be de-

known fan-leaved palm, and it is a fine plant for decorating the studio, although for introducing into portraits it is rather massive. Another good palm is *Ereca Lutescens*. This is a very graceful and rather tall-growing variety, and can be used in many ways, either for decorating the studio or in practical portrait work. Many of the numerous family of *Kentias* are also very useful and they are very good, sturdy plants, as well as graceful in form. The well-known *Cocos Weddelliana* is a little gem in its way, its light, feathery appearance giving it the look of a graceful fern, and harmonizing well with

Water.....	1000 parts
Borax.....	10 "
Acetate of Soda (fused)....	10 "
Chloride of gold (1% solution).....	30 "

As soon as the half-tones appear blue by transmitted light, rinse and fix in a 10% hypo-bath for ten minutes. To obtain a brownish-black tone, treat the print in the manner just indicated, but when the prints have attained to a red-violet tone in the bath, remove them, and after rinsing immerse them in the following:

Water.....	1000 parts
Potassium Chloroplatinite..	1 "
Common salt.....	5 "
Citric Acid.....	5 "

They will soon take the desired tone, and when this point is reached, plunge them in the 10% fixing bath. As soon as they



sired. If less permanganate be employed than the proportion recommended, the speed of combustion is less, and the smoke very much greater.

Potassium Permanganate..... 2 parts
Aluminium..... 1 "
—Photogram.

FOLIAGE IN THE STUDIO.—Probably nothing adds more to the artistic appearance of the studio, or produces a better effect on patrons by exhibiting good taste, than a few handsome or strikingly formed natural plants. Among plants that are particularly adapted to this purpose is the palm family. One of the best palms for bold, striking effects is the *Latina Bourbonica*. This is the well-

artistic surroundings. For more bold and striking effects, the well-known family of *Dracenas*, or dragon trees, are frequently very useful, but the red-leaved varieties must be used with care under the skylight, as, in a photogram, they come out very dark. When using ortho-chromatic plates, however, their color values are much better rendered.—*The Professional Photographer*.

TONING GELATINO-CHLORIDE PRINTS.—The following formula is given in the *Photo-Revue*: Wash prints in two waters containing as little lime as possible, then, after draining off the excess of water, immerse in a bath composed of

come in contact with the hyposulphite they will redden, as if all the toning had disappeared, but, on waiting, the proper tone will come back little by little. The wash water after fixing should be changed at least ten times.

Photography for Chemists.

Mr. H. Hunt, L.P.S.I., recently read a paper on "Photography" before the Irish Pharmacists' Assistants' Association, in which he argued that the art of photography should be taken up by chemists as a source of profit to themselves, and to enable them to set the novice right in the purchase of chemicals. Having related the history of the discoveries which

had brought the art to its present position, the lecturer showed by practical demonstrations on the blackboard diagrams of light passing through lenses, and explained its action on chemicals. Speaking of the camera Mr. Hunt, said this was secondary, up to a certain point, to the skill and experience of the operator. To show that expensive apparatus was not essential, he showed a photograph taken by means of a cigar box, an elastic band, and a shutter worked by a hairpin. Half-plate cameras were recommended for beginners, and promiscuous snap-shots were deprecated. The focussing of an object was dealt with. The taking of a picture was governed by the exposure, character of the light, nature of the subject, time of year, hour of day, etc. Sky and sea views required short exposures, while woodland scenery and dark masses of foliage required long exposures. The rule was "expose for the shadows and let the high lights take care of themselves." Developing was next treated of, and the following formula for a developing-preparation was given as a stock solution of pyro:

Pyrogallie acid	1 oz.
Nitric acid	20 min.
Water	5½ oz.

Add acid before pyro.

NO. 1.

Stock solution of pyro	1 to 2 oz.
Water to	20 oz.

NO. 2.

Carbonate of soda	2 oz.
Sulphite of soda	2 oz.
Bromide of potash	20 gr.
Water to	20 oz.

For a correctly-exposed plate equal parts of Nos. 1 and 2 were taken: 6 dr. of each would be sufficient for one plate. The developing-tray should be kept away from the ruby lamp. Place the plate in the tray, film-side upwards, and pour thereon the mixed developer with a rapid motion so as to completely cover the plate, rocking the tray immediately. In a minute or two the image will begin to appear in patches, the parts where the light was brightest showing up first. In a landscape the sky would first appear in a dark patch. The developer should consist of three parts, viz.:

1. The developer or reducer..... Pyro.
2. Accelerator..... Soda carb.
3. Restraint..... Bromide of potassium.

The addition of sulphite of soda prevents pyro absorbing oxygen from the air, and bromide of potassium keeps the pyro from attacking the silver salts too rapidly. The

plate, having been developed, should be first washed and then immersed for five minutes in a solution of alum and water—1½ oz. and 20 oz. respectively—then again washed, and afterwards placed in a fixing-solution of a 20-per-cent. of hyposulphite of soda to dissolve the unaltered salts of silver on the plate, and leave the image only, the result being a double salt of hyposulphite of soda and silver. After removal from this bath the plate should be washed in running water for two hours. Printing and toning were next touched upon, the solution for the latter being given as—

Sulphocyanide of ammonia	30 gr.
Chloride of gold	2½ gr.
Water	16 oz.

After toning, the prints should be fixed in a solution of hyposulphite of soda half the strength of that used for the plate.—*Chem. and Drug.*

Optical Department

In charge of W. E. HAMIL, M.D., Toronto.



Correspondents should note that for an intelligent answer to be given to their inquiries it is necessary in every case to give the following information relative to their patient: (1) Sex, (2) age, (3) occupation, (4) near point of distinct vision for small type with each eye alone, (5) how their eyes trouble them, *i.e.*, their asthenopic symptoms, (6) vision of each eye at twenty feet alone without glasses, (7) best vision obtainable with glasses, naming correction.

Example.—J.S., male; age, 18; book-keeper; can read small type to within five inches of each eye; complains of much headache through the day and evening; eyes feel sore and water a good deal, look red and inflamed, etc., etc.

R.E.V. $\frac{20}{20}$ with +1.50 = $\frac{20}{20}$
L.E.V. $\frac{20}{20}$ with +1.50 = $\frac{20}{20}$

The above example is taken to illustrate about how we desire inquiries to be made.

L.A.T. What is the best line to pursue in high myopia, say above 14.D, in a man 35 years old?

Ans.—It depends upon his occupation, but in these high cases the best plan is to give them a little more than half their full correction. In the case above I would

probably order a minus 9, possibly 10. Of course at church and public gatherings this correction will not give as good vision as could be obtained by full correction. On the other hand, it affords fairly satisfactory vision at all distances, for myopes realize their infirmity and soon learn by intuition and experience to interpret retinal images which the emmetropic eye could not possibly do. A pair of extra fronts to slip on as occasion demands overcomes the most exacting. Although high myopes seldom prefer their full correction on account of the minifying effect which concave glasses has on objects, which is especially pronounced with high numbers of concave glasses.

T.L.B. I had a child, aged 2 years, brought to me whose hair was a beautiful white and eyes a pink. The light seemed to hurt the child's eyes and they seemed to be moving in every direction constantly. What would you advise in this case?

Ans.—This child no doubt was an albino, which is caused by a diminution of the pigment in the system. The result of so little pigment causes the hair to be white, and because there is little or none of this pigment on the back of the iris and in the choroid the light enters the eye in floods, which causes photophobia. Perhaps the best advice in these cases is to do nothing, although a pair of plain smoked glasses, about No. 2 tint, would be very comfortable. You can give the parents some comfort by telling them that the pigment may increase as the child becomes older, which is a fact in some few cases.

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The following order was recently received in a retail drug store in Western Ontario. What does it call for? "Eyes-dying Amerky."

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We pride ourselves on the good opticians we have turned out, there is not a high salaried optician in Toronto or Ontario except our students. Well begun is half ended, and you can make no mistakes if you join our classes.

Qualification first, Diploma second, is our motto. You can get a Diploma from some places simply by buying a few goods, but that does not make you a successful optician.

Those diploma-giving colleges are always run by some Optical Firm, who make sales of their goods to students by holding out their diploma as a bait. We are independent of any Optical Firm; and the knowledge gained at, and a Diploma received from, THE OPTICAL INSTITUTE OF CANADA means something and always indicates merit—and you are free to buy where you please.

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Don't let the matter of a few paltry dollars perhaps ruin your whole future career as an optician, because somebody, or college, offers you a course of instruction free with the hope of selling you a bill of goods. There will be one or more first-class opticians in your town who are graduates of THE OPTICAL INSTITUTE OF CANADA, and you can't afford to be a third rate one.

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Toronto, Canada.



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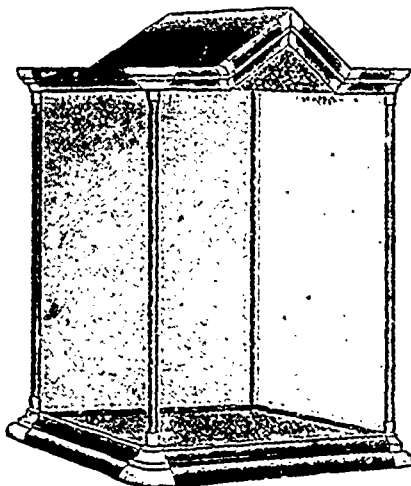
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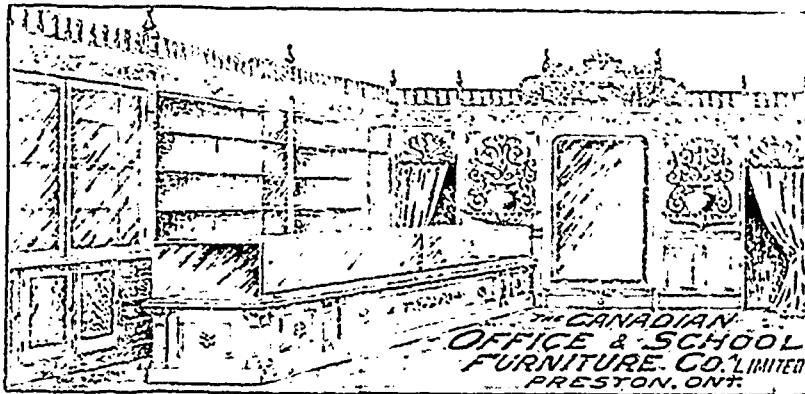


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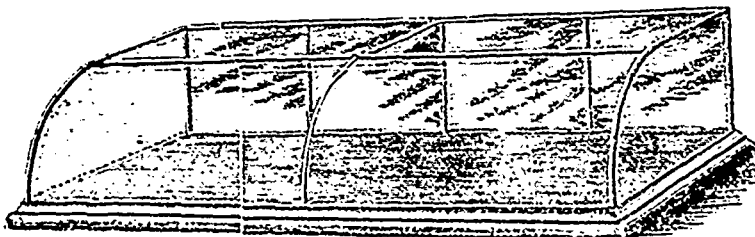
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The Science of Optics.

By LIONEL LAURANCE.

Entered according to Act of Parliament in the year 1896, by Lionel Laurance, at the Department of Agriculture.

Myopia.

At the age of fifty-five, when the condition, that in an emmetrope causes acquired H, comes on, the structural changes that take place in the eyes do slightly decrease the extent of the M, and weaker lenses are required for distance, and in act slight degrees of M, say up to 1.50D or 2D, may disappear altogether. For reading, of course, after forty years of age, the Cc. lenses must be reduced in strength on account of the advent of presbyopia, and if the M be not very high the person will reach an age when he requires no lenses at all, and later Cx. lenses for reading and Cc. for distance.

If the myope be of more than 2.50D, theoretically Cx. glasses can never be required. The PP, owing to the presbyopia, can recede, but it can never pass beyond the PR, and the myope of 2.50D can therefore always read at 16 ins.

In reality, M of 6D is the smallest degree that cannot at any age require Cx. lenses, because M might decrease owing to the flattening of the eyes in old age as much as 2.50D, and the decreased visual acuteness of old age may require that the reading may be brought to 11 inches.

When a person gets old the pupils become smaller and cut off some of the peripheral, and therefore most refracted rays, thereby causing a myope to see rather better.

When one hears of people with wonderful sight who have never, or only very late in life, required spectacles for reading, it is a certainty that they are myopic to a greater or lesser degree.

In very high degrees of M, when lenses are of no use owing to the extremely bad condition of the eyes, some improvement in sight might be made with discs with centre apertures which reduce the circles of diffusion formed at the macula. Such bad cases of M should not, however, be treated by the optician unless all available medical treatment has been tried without result.

Myopes not using glasses have a habit of partially closing the lids, so as to cut off some of the peripheral rays, and thus obtain better vision. The name of the defect—eye closed—is derived from this habit.

Large pupils are rather the rule in M.

This is doubtless caused by inactivity of the sphincter of the iris induced by inactivity of the sphincter of the ciliary. As the incident cone of light has a greater angle of divergence when the pupil is large, it would seem as if a large pupil should cause improved V in M, but this is more than counteracted by the increased refraction of the eye when the pupil is large, so that the sight is really worse with large pupils.

Accommodative M is a term applied to a condition of the sight where the eyes being hyperopic or emmetropic, the ciliary muscle contracts spasmodically, causing an apparent M. It need hardly be said that not being true M it cannot require Cc. lenses. Sometimes this condition is found with true M, causing it to appear of a much higher degree than it really is. It is usually due to exophoria because the necessary convergence effort brings about an accommodative effort. This condition was mentioned under H and will be again referred to under spasm of accommodation.

The PP without lenses should be measured in every case of M in order to prove the correction by lenses, and to avoid an overcorrection where there is a spasm of the Ac. Thus suppose a person to be twenty years of age, and the sph. lens that makes $V = \frac{20}{8}$ is 4D, then the amplitude being 10D and the M 4D = 14D, and 14 into $\frac{10}{4} = 2\frac{3}{4}$. His PP will be at $2\frac{3}{4}$ in. and the correction found -4D is about right. If the position of the PP does not correspond to the distance test further investigation is needed.

Although M has been discussed as being refractive and should be so considered by opticians for the sake of simplicity, it is in reality nearly always axial. It is said indeed that the cornea of the myopic eye, being larger than the emmetropic, in proportion with the rest of the globe, is of a greater radius, and so of less refractive power. This might be or not, or the eye might be myopic, partly refractive and partly axial, but the anatomical structure is of no importance to the refractonist; he is interested only in the refracting power of the eye, and so whether the defect be the one or the other it does not in the slightest degree alter the fact that for convenience M must be considered as the condition of eyes that have more

than 50D of refraction, and the correction consists of giving lenses that neutralize the surplus refraction so that the eye and lens together make the normal refractive power of 50D.

A Cc. lens diverges parallel rays of light. The myopic eye of say 3D is exactly adapted for receiving on the retina the focus of rays from 13 ins., hence if there be placed in front of such an eye a -3D or 13 in. Cc. lens, parallel rays are rendered divergent just as if they came from a distance of 13 in., and thus distant objects are made visible. The optician renders parallel rays divergent, before they enter the eye, to that extent for which any myopic eye is anatomically adapted.

A -sph. lens corrects a slightly lesser degree of M than its No. 1 indicates. The difference is small and need not be considered, as the defect is always taken as being of so many D according to its correcting lens. The difference is owing to the distance between the lens and the eye itself, instead of the former forming an integral part of the latter. The nearer the lens is to the eyes, the stronger is its power, so that if a person sees through a Cc. lens equally well when it is further removed, it shows that the lens is too strong, and if he sees better when it is nearer it is too weak for a full correction. Myopes wearing glasses that do not fully correct the defect bring them as close to the eyes as possible. The habit is also indulged in because then the retinal image is larger. The retinal image in M is larger than in Em., a Cc. lens makes it smaller. It is best when it is the same as in Em., which is when the lens is about at 15 m.m. in front of the eye, so this is the proper position for the lens when in use.

The Ac. is really never totally relaxed except in extreme old age, and very high degrees of M. Therefore under atropine most cases of M show a smaller degree of defect and the correcting lens, if a full correction be needed, must be somewhat stronger—perhaps 1D—than that which makes $V = \frac{20}{8}$ while the effects of the drug obtain.

In very high degrees of M the removal of the crystalline by operation has been suggested and even tried. The results did not prove satisfactory, being generally followed by retinal detachments, nor were there in any case reasons to suppose that changes in the retina and choroid were arrested, while on the other hand fluidity of the vitreous seemed rather to be caused by the operation than prevented.

The increase of length in the visual line in M is roughly $\frac{7}{8}$ of an inch ($\frac{1}{4}$ m.m.) for each D of the defect. The amount of increase can be calculated by dividing the focal length in mm of the correcting

lens into 300, the result being mm also. Thus in M 2D the focal length of the correcting lens is 500 m.m., then $\frac{300}{500} = .6$ m.m. which is the extent which the visual line is lengthened in M 2D.

be explained to an ad writer just as the case in law is explained to the lawyer. A lawyer may not know the first thing about steam boilers, and yet he may be called to try a case in which a knowledge of steam boilers is necessary. He gets this knowledge from his client and from such other sources as are accessible. It is the same way with the advertisement-writer. He gets all the information he possibly from his client. He studies the advertising his client has done. He makes use of all the good points which his client has made in the past. His business is to take these points and sharpen them and to add other points if he can.

Advertising.

Practical Hints on Advertising.

By CHARLES AUSTIN BATES, New York

There is no use in printing advertisements that people don't believe. The only way to make people believe advertisements is to make them true. It doesn't take a woman long to sort out the truthful stores. There are stores in New York that are undoubtedly making some money, although they have more or less of a reputation for untruthfulness in their advertising. But the stores that are making the biggest success are the ones that keep closest to the truth. I am not a moralist, and so haven't anything to do with the ethics of the case—the wings on my shoulders are not sufficiently developed to interfere with the fit of my coat—but I look at this matter of truthfulness in advertising from a purely business standpoint.

* * *

My old Spencerian copy-book used to say "Honesty is the best policy." I didn't know what it meant when I was writing it, but the more I learn about advertising the more I appreciate this old saying.

A man came to me the other day for a criticism of a circular concerning a certain article. He made a number of very strong claims for the article, and at the end of the circular made the statement that if the article didn't do exactly what it was claimed to do it might be returned and the price paid for it would be refunded. He wanted to scratch that last part out. I told him that his article was either good or bad. If it was bad he ought not to try to sell it; if it was good it would stand the guarantee. If he was telling the truth when he described the article he would never be asked to refund a cent of money. If he wasn't telling the truth he would have to refund the money anyway. If a man claims that an article is a certain thing, or that it will do certain things, and upon trial those claims are proved false, the purchaser is going to bring the article back and demand his money.

And he is going to get it, if he has

back-bone enough to stick up for his rights.

When one man sells another one a bogus gold brick the transaction is called a "bunco game" or a "confidence game." A more euphonious title for similar transactions is "obtaining money under false pretences." Unreasonable policemen and inconsiderate judges have been known to send men to the penitentiary for these little irregularities.

* * *

Now, I cannot see very much difference between selling a man some ordinary article of merchandise under false representations and selling him a gold brick under false representations. I don't believe that either transaction is conducive to permanent trade in the immediate locality where it occurs. I am afraid that the bunco gentleman would find it pretty hard to dispose of a second gold brick in the same neighborhood. I believe it is pretty hard to get a woman back to a store where she has been badly treated—I won't say "buncoed," because that might hurt somebody's feelings.

* * *

One trouble is that a great many people—advertisers included—have a sort of sneaking notion that advertising is a fake anyway, and that honesty and advertising is entirely different from honesty in other transactions. A man who wouldn't think of lying in his daily intercourse with other men, thinks it is perfectly legitimate to stretch the truth a little bit in his advertising. Fortunately for the future of advertising these men are becoming beautifully few. I suppose that the men in Philadelphia who say without reserve that the Wanamaker ads are lies would be glad to take John Wanamaker's personal word for anything he might promise them. That would be "different." Just why, nobody knows.

* * *

I believe there are a number of business men who think that the advertisement-writer proposes to write advertisements out of his inner consciousness, with utter disregard of the business in hand. The case of the advertiser must

The advertisement-writer cannot undertake to give an advertiser something entirely and distinctly new and different from anything he has had before. His proposition is simply to prepare good advertising matter that will help in the sale of goods. In the preparation of effective copy he has the advantage of the advertiser because he has the advertiser's best efforts to work on. It is presumed that the advertiser has done the very best he could and has put all he knew into the advertisement before called upon the professional advertisement writer. The advertiser and the writer would both be very foolish if they didn't make use of the advertiser's knowledge.

* * *

The advertisement-writer's work is to present the actual facts about a business in an agreeable manner. Of course, he has to know what he is writing about, and there is no better place to find this out than from the owner of the business.

Dr. Hamill wishes us to emphasize the fact that he has some very desirable drug businesses for sale, some 26 all told. (a) One in county Huron, town, 3,000; 3 stores; stock, \$3,000; sales, \$15. (b) Toronto, stock, \$2,000; sales, \$10. (c) North-west Territory, population, 1,500; one opposition; stock, \$3,000; sales, \$15. (d) County of Leeds, town, 4,000; stock, \$1,000; sales, \$20. (e) British Columbia, population, 400; stock, \$1,000; sales, \$8. (f) Middlesex county, population, 1,200; stock, \$2,000; sales, \$13. (g) Oxford county, population, 3,000; stock, \$3,700; sales, \$12. (h) County Bruce, population, 1,400; stock, \$3,000; sales, \$10. (i) County of Lincoln, population, 10,000; stock, \$4,000; sales, \$15.

YOUR
**Prescription
 Work**

SHOULD BE

Accurately Executed,

SHOULD BE

Promptly Returned,

SHOULD BE SENT TO

COHEN BROTHERS,

The only Manufacturers of
 Gold and Gold Filled Spectacles and Eye-Glasses in
 the Dominion of Canada.

**FLUID
 CASCARA
 AROMATIC**

(SCOTT & McMILLAN)

NOW

The....

**HOLGATE FIELDING CO.,
 LIMITED**

The attention of the trade is called to the fact that the S. & M. pharmaceutical specialties are now carried in stock by all wholesalers.

Particular attention is called to the above, which is now being detailed.

Always carry it in stock

SEND FOR PRICE LIST

The Holgate, Fielding Co., Limited
 25 Melinda St., TORONTO

**Can you
 Afford to
 Experiment**

- You have seen an up to date bicycle.
- Were the axles self-oiling?
- Were the chain rivets file-proof?
- Were the cranks spring-tempered steel?
- Were the balls hand-gauged and pedals dust-proof?
- Were the cones locked, insuring a permanent adjustment?
- Was the chain between the bearings or on one side?
- Had the chain been submitted to a jerk test of 1,200 lbs.?
- Were the bearings two-point, oil-tempered, file and dust-proof?
- Were the sprockets detachable forged and flanged, or only stamped?
- Were the spoke threads rolled or cut, detracting from the strength?
- Were there oil cups to fall off, permitting dirt to enter the bearings?
- Was it protected by a reliable home guarantee, or guaranteed by some unknown or remote American manufacturer?

The 1898 CLEVELAND has all these advantages

Clevelands = \$55, \$70, \$80

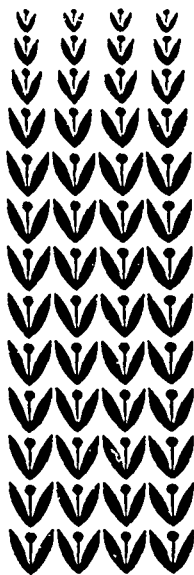
See the CLEVELAND IMPROVED BEARINGS—The only correct principle. The greatest invention since the Pneumatic Tire.....
 NO SIDE PULL, BIND, OR TWIST.

WRITE FOR CATALOGUE. AGENTS EVERYWHERE.

H. A. LOZIER & CO., TORONTO JUNCTION.

Showrooms removed to 117 Yonge St.

A Good Deal of Noise for Ten Cents



I have a couple of large mailing cards, nine inches by eleven inches.

They go through the mails with a one-cent stamp on the address side.

They are printed in three colors.

For identification in this office they are called:

“The Tiger Card.”

“The Elephant Card.”

They are the noisiest things that ever went through the mails.

If you send for them you can hear them coming when they start.

If you want to hear them you will have to drop ten cents in the slot—send five two-cent stamps.

The cards are to be used to drum up business—have been used successfully. Sold to only one firm in each town.

If you buy enough of them you can pre-empt a county, or a state, or an entire line of business in the whole country

They cost \$20 for 1,000, \$65 for 5,000, \$15 for 500.

Charles Austin Bates

Vanderbilt Building, NEW YORK

Formulary

BARBER'S STYPTIC POWDER.

The majority of the preparations upon the market contain tannic acid, alum, sub-sulphate of iron, or some other astringent substance, which, when applied, will arrest local bleeding. Here are two formulas which are said to be serviceable :

- 1.—Alum
Nutmegs.....
Acacia.....
Gum benzoin.....equal parts.

Powder each separately and mix.

- 2.—Alum.....
Gum tragacanth.....
Tannic acid.....equal parts.

Powder and mix.

SHAMPOO POWDER.

- Sodii bicarb..... 4 ozs.
Sodii biborat..... 4 ozs.
Pulv. saponis..... 4 ozs.
Pulv. curcumæ..... 1 dr.
Ol. geranii..... 20 m.
Ol. verbenæ..... 5 m.

Mix. Weigh up into three-quarter ounce packets.—*Chem. and Drug.*

ANTISEPTIC SHAMPOO.

- Ammonium carbonate..... ½ oz.
Boracic acid..... 1 oz.
Distilled water..... 1 pt.
Glycerin..... 4 ozs.
Bay rum..... 1 pt.

This is as effective as the stronger potash or soda mixtures.

SKIN FOOD.

Any of the cold creams may be sold under the name of "Skin Food"; the following is said to be the formula of one that has some sale :

- Petrolatum, white..... 8 ozs.
Paraffin wax..... 1 oz.
Lanolin..... 2 ozs.
Water..... 2 ozs.
Oil of geranium..... 20 drops.

Melt the paraffin, add the petrolatum and lanolin, pour into a warm mortar and with constant stirring incorporate the water and the perfume.

If the preparation is to be tinted red use alkanet root, and an amber colored petrolatum may be employed instead of white.

MOUTH-WASH TABLETS.

- Heliotropin..... gr. ½
Saccharin..... gr. ¼
Salicylic acid..... gr. ij.
Menthol..... ʒj.
Sugar of milk..... ʒv.
Spirit of rose, a sufficiency to perfume.

Mix with any coloring desired, and divide into 120 compressed tablets.

BICYCLE TIRES, CEMENT FOR.

The following formulas have been published in *The Standard Formulary* as reliable cements for bicycle tires :

- Take of
Caoutchouc (in fine shreds).. 2 ozs. av.
Resin..... 140 grains.
Shellac..... 100 "
Carbon disulphide, sufficient
to dissolve the other ingredi-
ents.....

A very good cement can be obtained by placing pulverized shellac in ten times its weight of stronger water of ammonia. The shellac becomes softened, a viscid, transparent mass resulting, which after standing three or four weeks will liquefy. The glue is always ready for use, but in cold weather it is necessary to soften it by placing in hot water.

SODIUM PEROXIDE AS BLEACHING AGENT.

The most practical solutions are one composed of :

- | | |
|-------------------------|--------|
| | Parts. |
| Sodium peroxide..... | 1 |
| Magnesium sulphate..... | 3 |
| Water..... | 95 |

And another, composed of :

- | | |
|---|--------|
| | Parts. |
| Sodium peroxide..... | 1 |
| Conc. sulphuric acid, Sp. gr. 1.84..... | 1.35 |
| Water..... | 100 |

For bleaching straw a solution containing oxalic acid has been found useful.—*Sudd. Ap. Ztg.*

DENTIFRICE FOR DARK ENAMEL.

The following is a dentifrice recommended for the use of persons the enamel of whose teeth has become discolored.

- Chlorate of potash..... 1½ drs.
Powdered boracic acid..... 3 drs.
Carb. of magnesia (heavy)..... 3 drs.
Precipitated chalk..... 3 drs.
Ess. of peppermint..... 5 dps.

—*L'Odontologie.*

TRANSPARENT CHINA CEMENT.

- | | |
|--------------------------|--------|
| | Ounce. |
| Isinglass (French)..... | 1 |
| Glacial acetic acid..... | 1 |
| Water..... | ½ |

Soak the isinglass in the water overnight, add the acid, and heat till clear.—*Chem. and Drug.*

PROCESS FOR SYRUP OF SENEGA.

Take of senega root, 10 troy ounces; stronger ammonia-water, 3 fluid drachms; alcohol, 4 fluid ounces; water, 20 fluid ounces. Macerate in a closed vessel for three days, express and strain, return the dregs and remacerate with stronger ammonia, 1 fluid drachm; alcohol, 4 fluid

ounces; water, 16 fluid ounces. Express and strain as before. Mix the two decantates, add 1 ounce of precipitated chalk, filter, and pass enough water to complete 25 fluid ounces. Percolate this through 38 troy ounces of sugar, and make up to 48 fluid ounces.

MOTH DESTROYING SOLUTION.

Dissolve 20 parts of naphthalin, 20 parts carbolic acid, and 50 parts camphor in a mixture of 50 parts oil of turpentine and 850 parts 90 per cent. alcohol, then add 5 parts each of oil of mirbane and oil of patchouli. The solution is used as a spray.—*Drug. Zei.*

RUBBER CEMENT FOR CYCLES.

- | | |
|---------------------------|--------|
| | Parts. |
| Fish glue..... | 1 |
| Gutta percha..... | 2 |
| India rubber..... | 4 |
| Bisulphide of carbon..... | 32 |

—*Brit. and Colo. Drug.*

Terebene-glycerine is prepared by mixing 7 parts glycerine, 4 parts terebene, and 1 part water, and shaking the mixture thoroughly with frequent exposure to air, until the separating glycerine remains turbid upon standing. This product is employed for purulent wounds and applied by covering the wounds with cotton or gauze saturated with it.—*Ph. Post.*

LAXATIVE REMEDIES.—LAXATIVE TEA.

- Senna, cut..... 8 av. oz.
Couch grass, cut..... 4 av. oz.
Frangula, cut..... 4 av. oz.
Fennel seed, bruised..... ½ av. oz.

Mix. This may be sold when German herb tea, cathartic or laxative tea are called for. Directions: From one-half to a teaspoonful of the species to a cupful of boiling water, this to be taken at bedtime.

WINE OF CINCHONA.

The following formula is given by Dr. G. Romijn :

- Powdered cinchona bark... 10 parts.
Hydrochloric acid (146 parts
for every 310 parts alkaloids).
Alcohol..... 14 parts.
Sugar..... 25 parts.
Water, sufficient to make... 100 parts.

Dissolve 5 parts of sugar in a mixture of the alcohol, two-thirds of the acid, and enough water to make 40 parts; percolate the powder with this menstruum in the usual manner; continue the percolation with a mixture of 20 parts of water and the remaining acid and finish with water. Separate the first 75 parts of percolate, dissolve in it the remainder of sugar, and make up to 100 parts with the succeeding percolate.—*Phar. Weekblad.*

All Wide-Awake Druggists Handle

Dr. Jim ^{5c.} Little Governor ^{5c.}

For Sale by
all Jobbers

and **Cecil Rhodes** 10c.

Cigars
as Leaders

By far the best advertised brands at present before the public

The Canadian Cigar Co., MANUFACTURERS Toronto, Ont.

Amongst Our Advertisers.

An Old Friend.

Our old friend Tangle-foot makes its bow to our readers in this number, introducing itself for the season of '98. No words of commendation are necessary for an article so well and favorably known to the trade. Read the advertisement, there is something in it for you.

Have You a Camera?

If not, there is no reason why you should not, at the price offered by the Vive Camera Co. in this issue. Read their full page announcement. It is interesting and valuable to all dealers in photographic supplies, and to amateur photographers.

Extension of Time.

Messrs. Powell & Davis announce that the time has been extended for taking advantage of their special offer on "Fly Felts." Now is the time to order. Read the adv.

J. Hungerford Smith Co., on page 76a this issue, make some important announcements to the drug trade, both in reference to their fly papers and their celebrated fruit juices and flavors. If you want any goods in these lines be sure to communicate with this firm.

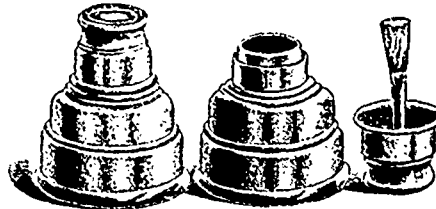
Maypole Soap.

Most gratifying results are reported as to the introduction of Maypole soap, the wonderful home-dyes. There can be no doubt as to the sale of these goods, which are so liberally advertised and give such satisfactory results. We are informed that in Australia alone 12,000 gross of these goods were sold last year. Three

additional colors are now being added to the lines already mentioned in these columns. Send a trial order to Arthur P. Tippet & Co., Montreal.

Perfect Mucilage Bottle.

The "Perfect" Mucilage bottle illustrated herewith is recommended as among the best containers for mucilage paste on the market. It is made of aluminium on



the principle of a glue pot, having a water reservoir and vapor chamber absolutely preventing the contents from thickening or clogging up at the mouth. They retail at fifty cents each, and the trade can procure them from Buntin, Gillies & Co., Hamilton.

Fly Pads.

Messrs. Archdale Wilson & Co., of Hamilton, intend spending a very large amount of money this season in advertising fly pads in family journals and have no doubt that the increased demand will this year be much larger than ever before.

So far the output of fly pads has increased almost every year since their introduction nearly twenty years ago, and at present the sale of fly pads is much larger in Canada than all other forms of fly poisons put together.

To POLISH ALUMINIUM.—Gray or unsightly aluminium may be restored to its white color by washing with a mixture of 30 grams of borax, dissolved in 1,000 grams of water, with a few drops of ammonia added.

WANTS, FOR SALE, ETC.

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

SITUATIONS WANTED.

POSITION WANTED BY A LADY DRUGGIST having six years' experience as dispenser and general clerk. Good references given. Address M. Gibson, Box 231, Belleville.

WANTED—A POSITION BY A YOUNG MAN who is an honor graduate of the Ontario College of Pharmacy (1897), and having the degree of Phm.B. (Tor.). Excellent recommendations and references can be furnished concerning dispensing, business principles, good habits, etc. Address H. E. Woodland, 38 Besseler street, Ottawa, Ont.

SITUATIONS VACANT.

PHYSICIAN WANTED IN A MONTANA, U.S.A. mining camp of 1,000 inhabitants. Write for particulars. Address Martin C. Julian, Belt, Mont.

FOR SALE.

FOR SALE—WELL-ASSORTED STOCK OF Drugs and Stationery, about \$2,000, in one of the best villages in Ontario. Thriving business done. Good reasons for selling. Address "Drugs," 177 Emerald street north, Hamilton, Ont.

We Solicit Your Trade

We offer a well-assorted stock of

**Drugs
Chemicals
Patent
Medicines
Perfumery
Toilet Articles
etc.**

CALL AND SEE US

JAMES A. KENNEDY & CO.,

WHOLESALE DRUGGISTS

423 Richmond St.,

LONDON, Ont.

SEELY'S

CEEBRA TED

Not a Common Mixture, but made from a formulæ of great merit....

Put up in 25c. and 50c. sizes



PARISIAN BALM

"REGISTERED"

For Toilet Use.

Whitens the hands and beautifies the skin.

SEELY The American Perfumer

Detroit, Mich., U.S.A.

ESTABLISHED 1862

Windsor, Ont.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to April 11th, 1898.

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

ALCOHOL, gal.....	\$4 75	\$5 00
Methyl.....	1 90	2 00
ALLSPICE, lb.....	13	15
Powdered, lb.....	15	17
ALOIN, oz.....	40	45
ANODYNE, Hoffman's bot., lbs...	50	55
ARROWROOT, Bermuda, lb.....	40	45
St. Vincent, lb.....	15	18
BALSAM, Fir, lb.....	45	50
Copaiba, lb.....	70	85
Peru, lb.....	3 25	3 50
Tolu, can or less, lb.....	70	75
BARK, Barberry, lb.....	22	25
Bayberry, lb.....	15	18
Ruckthorn, lb.....	15	17
Canella, lb.....	15	17
Casarea Sagrada.....	25	30
Casailla, select, lb.....	18	20
Cassia, in mats, lb.....	18	20
Cinchona, red, lb.....	60	65
Powdered, lb.....	65	70
Yellow, lb.....	35	40
Pale, lb.....	40	45
Elm, selected, lb.....	18	20
Ground, lb.....	17	20
Powdered, lb.....	20	28
Hemlock, crushed, lb.....	18	20
Oak, white, crushed lb.....	15	17
Orange peel, bitter, lb.....	15	16
Prickly ash, lb.....	35	40
Sassafras, lb.....	15	16
Soap (quillaya), lb.....	13	15
Wild cherry, lb.....	13	15
BEANS, Calabar, lb.....	45	50
Tonka, lb.....	1 50	2 75
Vanilla, lb.....	11 00	16 00
BERRIES, Cubeb, sifted, lb.....	20	25
powdered, lb.....	25	30
Juniper, lb.....	7	10
Ground, lb.....	12	14
Prickly ash, lb.....	40	45
BUDS, Balm of Gilead, lb.....	55	60
Cassia, lb.....	25	30
BUTTER, Cacao, lb.....	60	65
CAMPHOR, lb.....	50	55
CANTHARIDES, Russian, lb.....	1 40	1 50
Powdered, lb.....	1 50	1 60
CAPSICUM, lb.....	25	30

Powdered, lb.....	30	\$ 35
CARBON, Bisulphide, lb..	15	16
CARMINE, No. 40, oz.....	40	50
CASIOR, Fibre, lb.....	20 00	20 00
CHALK, French, powdered, lb...	10	12
Precip., see Calcium, lb.....	10	12
Prepared, lb.....	5	5
CHARCOAL, Animal, powd., lb...	4	5
Willow, powdered, lb.....	20	25
CLOVE, lb.....	16	17
Powdered, lb.....	17	18
COCHINEAL, S.G., lb.....	40	45
COLLODION, lb.....	75	80
Cantharidal, lb.....	2 50	2 75
CONFECTION, Senna, lb.....	40	45
CREOSOTE, Wood, lb.....	1 25	2 50
CUTTLEFISH BONE, lb.....	25	30
DEXTRIENE, lb.....	10	12
DOVEK'S POWDER, lb.....	1 50	1 60
ERGOT, Spanish, lb.....	75	80
Powdered, lb.....	90	1 00
Ergotin, Keith's, oz.....	2 00	2 10
EXTRACT LOGWOOD, bulk, lb...	13	14
Pounds, lb.....	14	17
FLOWERS, Arnica, lb.....	15	20
Calendula, lb.....	55	60
Camomile, Roman, lb.....	25	30
German, lb.....	40	45
Elder, lb.....	20	22
Lavender, lb.....	12	15
Rose, red, French, lb.....	1 60	2 00
Rosemary, lb.....	25	30
Saffron, American, lb.....	65	70
Spanish, Val'a, oz.....	1 00	1 25
GELATINE, Cooper's, lb.....	75	80
French, white, lb.....	35	40
GLYCERINE, lb.....	17	20
GUARANA, lb.....	1 25	1 50
Powdered, lb.....	1 50	1 75
GUM ALOES, Cape, lb.....	18	20
Barbadoes, lb.....	30	50
Socotrine, lb.....	65	70
Asafoetida, lb.....	40	45
Arabic, 1st, lb.....	70	75
Powdered, lb.....	80	95
Sifted sorts, lb.....	45	50
Sorts, lb.....	30	35
Benzoin, lb.....	50	1 00
Catechu, Black, lb.....	9	20
Gamboge, powdered, lb.....	1 20	1 25
Guaiac, lb.....	50	1 00
Powdered, lb.....	90	95
Kino, true, lb.....	4 25	4 50

Myrrh, lb.....	\$ 45	\$ 48
Powdered, lb.....	55	60
Opium, lb.....	4 50	4 75
Powdered, lb.....	6 00	6 25
Scammony, pure Resin, lb.....	12 50	13 00
Shellac, lb.....	35	40
Bleached, lb.....	40	45
Spruce, true, lb.....	30	35
Tragacanth, flake, 1st, lb.....	85	90
Powdered, lb.....	1 10	1 25
Sorts, lb.....	55	70
Thus, lb.....	8	10
HERB, Althea, lb.....	27	35
Bitterwort, lb.....	36	40
Burdock, lb.....	16	18
Boneset, oz., lb.....	15	17
Catnip, oz., lb.....	17	20
Chiretta, lb.....	25	30
Coltsfoot, lb.....	20	38
Feverfew, oz., lb.....	53	55
Grindelia robusta, lb.....	45	50
Horehound, oz., lb.....	18	20
Jaborandi, lb.....	45	50
Lemon Balm, lb.....	38	40
Liverwort, German, lb.....	38	40
Lobelia, oz., lb.....	15	20
Motherwort, oz., lb.....	20	22
Mullein, German, lb.....	17	20
Pennyroyal, oz., lb.....	18	20
Peppermint, oz., lb.....	21	22
Rue, oz., lb.....	30	35
Sage, lb.....	18	20
Spear-mint, lb.....	21	25
Thyme, oz., lb.....	18	20
Tansy, oz., lb.....	15	18
Wormwood, oz.....	20	22
Yerba Santa, lb.....	38	44
HONEY, lb.....	13	15
HOPS, fresh, lb.....	20	25
INDIGO, Madras, lb.....	75	80
INSECT POWDER, lb.....	35	38
ISINGLASS, Brazil, lb.....	2 00	2 10
Russian, true, lb.....	6 00	6 50
LEAF, Aconite, lb.....	25	30
Bay, lb.....	18	20
Belladonna, lb.....	25	30
Buchu, long, lb.....	50	55
Short, lb.....	25	27
Coca, lb.....	35	40
Digitalis, lb.....	15	20
Eucalyptus, lb.....	18	25
Hyoseyamus.....	20	25
Matico, lb.....	70	70

Table listing various drugs and their prices in multiple columns. Includes items like Senna, Licorice, Nutgalls, and various salts and oils.

Books.

Messrs. Lea Brothers & Co. announce for early publication the following books by eminent authorities. Complete catalogues of the publications of this firm may be had by addressing either their Philadelphia or New York house:

"A Manual of Otology." By Gorham Bacon, A.M., M.D., Professor of Otology in University Medical College, New York. With an Introductory Chapter by Clarence J. Blake, M.D., Professor of Otology in the Harvard Medical School, Boston, Mass. In one handsome 12mo. volume, with numerous illustrations.

"The Treatment of Surgical Patients Before and After Operation." By Samuel M. Brickner, M.D., Visiting Surgeon at the Mt. Sinai Hospital, New York. In one handsome volume of about 400 pages, with illustrations.

"A Text-Book of Dental Pathology, Therapeutics, and Pharmacology." Being a Treatise on the Principles and Practice of Dental Medicine. By Henry H. Burchard, M.D., D.D.S., Special Lecturer on Dental Pathology and Therapeutics at the Philadelphia Dental College, Philadelphia. In one handsome octavo volume of about 550 pages, with 400 illustrations.

"The Principles of Treatment." By J. Mitchell Bruce, M.D., F.R.C.P., Physician and Lecturer on Materia Medica and Therapeutics at Charing-Cross Hospital, London. In one octavo volume.

"Diseases of the Nose, Throat, Naso-Pharynx, and Trachea": A Manual for Students and Practitioners. By Cornelius G. Coakley, M.D., Professor of Laryngology in University Medical College, New York. In one volume, 12mo., of about 400 pages, with numerous illustrations, many of which are in colors.

"Diseases of Women": A Manual of Non-surgical Gynecology, designed especially for the use of Students and General Practitioners. By Francis H. Davenport, M.D., Instructor in Gynecology in the Medical Department of Harvard University, Boston. Third edition, thoroughly revised and enlarged, with many additional illustrations.

"A Treatise on Gynecology." By E. C. Dudley, A.M., M.D., Professor of Gynecology in the Chicago Medical School, Chicago. In one octavo volume of about 600 pages, with 425 illustrations, many of which are in colors.

"A Text-Book of Anatomy." By American Authors. Edited by Frederic Henry Gerrish, M.D., Professor of Anatomy in the Medical School of Maine. In one handsome imperial octavo volume, copiously illustrated in colors.

"Manual of Skin Diseases." With Special Reference to Diagnosis and Treatment. For the Use of Students and General Practitioners. By W. A. Hardaway, M.D., Professor of Skin Diseases in the Missouri Medical College. Second edition, entirely rewritten and much enlarged. In one handsome 12mo. volume with illustrations.

"The Principles and Practice of Obstetrics." By American Authors. Edited by Charles Jewett, M.D., Professor of Obstetrics in the Long Island College Hospital, Brooklyn, N.Y. In one handsome octavo volume, with many illustrations in black and in colors.

Varnish for Bookbinders, for Paper and for Drawings.

The essential features of a varnish suitable for the above purposes are flexibility, durability, imperviousness, and adhesiveness. We subjoin a few recipes. All

the proportions given, whether liquid solids, are by weight, and it should be noted that methylated spirit of wine, which gives a cheaper and more quickly drying varnish than rectified spirit does, may in most cases be employed instead of the latter:

1. Light Brown Varnish—
 Refined pale shellac..... 5 parts.
 Turpentine..... 2 "
 Spirits of wine..... 16 "
2. Dark Brown Varnish—
 Refined dark shellac..... 10 parts.
 Turpentine..... 5 "
 Spirits of wine..... 34 "
3. White Varnish (A)—
 Bleached shellac..... 11 parts.
 Turpentine..... 5 "
 Spirits of wine..... 35 "
4. White Varnish (B)—
 Sandarach..... 10 parts.
 Turpentine..... 7 "
 95 per cent. spirit of wine.... 34 "
5. Varnish for Full Calf Extra—
 Shellac..... 8 parts.
 Sandarach..... 8 "
 Mastic drops..... 2 "
 Turpentine..... 2 "
 40 per cent. spirits of wine .. 60 "
 Brush lightly over the book.
6. Elemi..... 4 parts.
 Mastic..... 4 "
 Sandarach..... 6 "
 Turpentine..... 3 "
 Spirits of wine..... 30 "
7. Shellac..... 20 parts.
 Turpentine..... 2 "
 Spirits of wine..... 60 "
8. Dragon's blood..... 2 parts.
 Gum gutta..... 20 "
 Sandarach..... 4 "
 Shellac..... 40 "
 Turpentine..... 10 "
 Spirits of wine..... 200 "
9. Mastic..... 5 parts.
 95 per cent. spirits of wine... 5 "
 Ether..... 10 "
10. Mastic..... 6 parts.
 Sandarach..... 6 "
 95 per cent. spirits of wine... 25 "
 Ether..... 13 "
11. Pyrocopal..... 5 parts.
 Mastic..... 2 "
 95 per cent. spirits of wine.. 8 "
 Ether..... 5 "
12. Gum lac..... 54 parts.
 Turpentine..... 2 "
 95 per cent. spirits of wine.. 344 "

GOOD AS A GOLD MINE, SELLING DAVIS' FLY FELTS.

1898 SPECIAL OFFER.



2 Boxes Davis' Fly Felts retail for	\$10 00
1 Cardboard Box Davis' Fly Felts, 20 packages, retail for	1 00
	11 00
Price to retailer.....	4 50
Profit.....	6 50

Really making 2 boxes Fly Felts retailing at \$10 cost but \$3.50

Special Offer. Time extended till further notice. Send order direct to us, naming wholesaler that goods are to be shipped through. Handle and push Davis' Fly Felts, the popular Fly Poison. Affords largest profit of any fly poison in the market. Every package guaranteed effective.

Manufactured by POWELL & DAVIS CO., Chatham Ont.

Iodide, oz.....	\$ 35	\$ 40	Iodide, oz.....	\$ 40	\$ 43	Geranium, oz.....	\$1 75	\$1 85
Bin., oz.....	25	30	Salicylate, lb.....	1 00	1 10	Rose, lb.....	3 20	3 50
Oxide, Red, lb.....	1 15	1 20	Sulphate, lb.....	2	5	Juniper berries (English), lb...	4 50	5 50
Pill (Blue Mass), lb.....	70	75	Sulphite, lb.....	8	10	Wood, lb.....	70	70
MILK SUGAR, powdered, lb.....	30	35	SOMNAC, oz.....	85	00	Lavender, Chris. Fleur, lb.....	3 00	3 55
MORPHINE, Acetate, oz.....	1 75	1 80	SPIRIT NITRE, lb.....	38	68	Garden, lb.....	75	1 50
Muriate, oz.....	1 75	1 80	SFRONIUM, Nitrate, lb.....	18	20	Lemon, lb.....	1 75	1 90
Sulphate, oz.....	1 80	1 85	STRYCHNINE, crystals, oz.....	80	85	Lemongrass, lb.....	1 50	1 00
PEPSIN, Saccharated, oz.....	35	40	SULFONAL, oz.....	28	30	Mustard, Essential, oz.....	60	60
PHENACEFINE, oz.....	38	40	SULPHUR, Flowers of, lb.....	2 1/2	4	Neroli, oz.....	4 25	4 60
PILOCARPINE, Muriate, grain.....	17	18	Pure precipitated, lb.....	13	20	Orange, lb.....	2 75	3 75
PIPERIN, oz.....	1 00	1 10	TARTAR EMBRIC, lb.....	50	55	Sweet, lb.....	2 75	3 60
PHOSPHORUS, lb.....	90	1 10	THYMOI (Thymic acid), oz.....	55	60	Origanum, lb.....	65	50
POTASSA, Caustic, white, lb.....	60	65	VERATRINE, oz.....	2 00	2 10	Patchouli, oz.....	80	50
POTASSIUM, Acetate, lb.....	35	40	ZINC, Acetate, lb.....	70	75	Pennyroyal, lb.....	2 50	2 05
Bicarbonate, lb.....	15	17	Carbonate lb.....	25	30	Peppermint, lb.....	2 25	2 07
Bichromate, lb.....	14	15	Chloride, granular, oz.....	13	15	Pimento, lb.....	2 60	2 05
Birat (Cream Tart.), lb.....	25	28	Iodide, oz.....	60	65	Rhodum, oz.....	80	85
Bromide, lb.....	70	75	Oxide, lb.....	13	60	Rose, oz.....	7 50	11 30
Carbonate, lb.....	12	13	Sulphate, lb.....	9	11	Rosemary, lb.....	70	50
Chlorate, Eng., lb.....	18	20	Valerianate, oz.....	25	30	Rue, oz.....	25	50
Powdered, lb.....	20	22	ESSENTIAL OILS.			Sandalwood, lb.....	5 50	7 70
Citrate, lb.....	70	75	OIL, Almond, bitter, oz.....	75	80	Sassafias, lb.....	75	60
Cyanide, lb.....	40	50	Sweet, lb.....	40	50	Savin, lb.....	1 60	1 58
Hypophosphites, oz.....	10	12	Amber, crude, lb.....	40	45	Spearmint, lb.....	3 75	4 79
Iodide, lb.....	3 50	3 75	Rec't, lb.....	60	65	Spruce, lb.....	65	60
Nitrate, gran, lb.....	8	10	Anise, lb.....	3 00	3 25	Tansy, lb.....	4 25	4 85
Permanganate, lb.....	40	45	Bay, oz.....	50	60	Thyme, white, lb.....	1 80	1 87
Prussiate, Red, lb.....	50	55	Bergamot, lb.....	3 25	3 50	Wintergreen, lb.....	2 75	3 00
Yellow, lb.....	32	35	Cade, lb.....	90	1 00	Wormseed, lb.....	3 50	3 70
And Sod. Tartrate, lb.....	25	30	Cajuput, lb.....	1 60	1 70	Wormwood, lb.....	4 25	4 55
Sulphuret, lb.....	25	30	Capsicum, oz.....	60	65	FIXED OILS.		
PROPYLAMINE, oz.....	35	46	Caraway, lb.....	2 75	3 00	CASTOR, lb.....	13	15
QUININE, Sulph, bulk.....	50	36	Cassia, lb.....	2 75	3 00	COD LIVER, N.F., gal.....	90	95
Ozs., oz.....	35	38	Cedar.....	55	85	Norwegian, gal.....	1 35	1 50
QUININE, Sulphate, ozs., oz.....	16	20	Cinnamon, Ceylon, oz.....	2 75	3 00	COTTONSEED, gal.....	1 10	1 20
SALICIN, lb.....	4 50	5 00	Citronella, lb.....	80	85	LARD, gal.....	90	1 00
SANTONIN, oz.....	20	22	Clove, lb.....	1 10	1 20	LINSEED, boiled, gal.....	56	59
SILVER, Nitrate, cryst, oz.....	80	85	Copaiba, lb.....	1 75	2 00	Raw, gal.....	55	58
Fused, oz.....	85	90	Cotton, lb.....	1 50	1 75	NEATSFOOT, gal.....	1 20	1 30
SODIUM, Acetate, lb.....	30	35	Cubeb, lb.....	2 50	3 00	OLIVE, gal.....	1 30	1 35
Bicarbonate, kgs, lb.....	2 75	3 00	Cumin, lb.....	5 50	6 00	Sisal, gal.....	2 50	2 60
Bromide, lb.....	70	75	Erigeron, oz.....	20	25	PALM, lb.....	12	13
Carbonate, lb.....	3	6	Eucalyptus, lb.....	1 50	1 75	SPEARMINT, gal.....	1 35	1 40
Hypophosphite, oz.....	10	12	Fennel, lb.....	1 60	1 75	TURPENTINE, gal.....	60	65
Hyposulphite, lb.....	3	6						

- 13. Gum lac..... 63 parts.
Sandarach..... 130 "
Turpentine..... 15 "
95 per cent. spirits of wine... 790 "
- 14. Sandarach.....:91 parts.
Turpentine..... 46 "
93 per cent. spirits of wine... 763 "
- 15. Varnish for Maps—
Pyrocopal..... 24 parts.
Essence of lavender..... 3 "
Turpentine..... 14 "
- A somewhat smaller quantity of pyro-succin can be substituted for the pyrocopal.
- 16. Paper Varnish (1st quality)—
Sandarach..... 5 parts.
Turpentine..... 3 "
95 per cent. spirits of wine... 15 "
- 17. Paper Varnish (2nd quality)—
Sandarach..... 5 parts.
Thick turpentine..... 3 "
95 per cent. spirits of wine... 15 "
- 18. Varnish for Chalk or Black Lead Drawings—
Sandarach..... 2 parts
Turpentine..... 2 "
95 per cent. spirits of wine... 18 "
- 19. Varnish for Water Color Drawings—
Sandarach 4 parts or mastic... 5 parts.
Turpentine 4 " or "..... 2 "
95 per cent. spirits of wine... 14 "
- Oils, Colors, and Drysalteries.

Drug Reports.

Canada.

The most important change last month was the surprising drop in quinine, and we are favored with another surprise in the same line this month owing to the low price of bark at the last Amsterdam sale, the price is down about 2c. oz.

As before reported Norway cod liver oil is likely to be much higher, price has already advanced from 15 to 20c. a gallon and higher prices still looked for, as the catch is just over and it has been a poor one.

Camphor is higher, guaiacoi carb is easier, no other changes of importance. Phenalgin powder and tablets, made by Etna Chemical Co., New York, are now put up only in 1 oz. bottles, price \$1.30 oz. Sloan's Indian Tonic has been advanced by the manufacturers to \$8 doz.

We would call the attention of our readers to Trask's Magnetic Ointment and Ranson's Hive Syrup. These remedies are being extensively advertised, and

where druggists recommend them and push them they are receiving large returns. It is essential when a druggist is recommending a remedy that he recommends one that can be trusted, and such are these articles. The proprietors authorize druggists to guarantee these remedies and to refund the money where a customer is not satisfied.

Druggists

WILL find the Student's Imperial Dictionary the very best one for use in home or dispensary. It is reliable, up-to-date, and authoritative. No other dictionary can be obtained for less than three times its price which contains the latest information in all departments of study and investigation. It is the most satisfactory and most complete working dictionary yet printed.

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44-46 Richmond St. W., Toronto

DOMES, BUBBLES AND EGGSHELLS.

Seen from a distance on a fine day the dome of St. Paul's looks as light as a soap bubble; and if it could talk, it would tell you it feels as light, for the mighty strength of the great church carries it as a man carries a baby on his shoulder. Yet it weighs—how much, do you fancy?

A woman stood in the doorway awaiting the return of her husband. He had left home with a heavy load of anxiety on his mind. Presently she saw him coming. Matters had been satisfactorily adjusted; she knew it by his face. Walking quickly up to her, he said—not loudly, but gently, with pauses between his words: "*Wife, if you should heap a bushel of eggs in that door I feel I could run over them and not break one.*"

"This is in the line of universal experience. Weight—so far as it concerns the human body at least—is not determined by the scales, but by sensation.

We beg to introduce Mr. John Stafford, who says, "*I felt as if a heavy load had been lifted off me.*"

"For over twenty years," he adds, "I had suffered from obstinate indigestion and constipation. For more than a week at a time I would never have my bowels moved."

The reader is an intelligent person, doubtless. Consider Mr. Stafford's statement, then, for a moment, let us put the fact in plain English. His intestines were full of festering rottenness; they were like a stagnant morass, breeding disease and death. The poisons engendered by so vile an accumulation are absorbed by the tissues, pass into the blood, and infest every organ and part of the system. If not relieved, the victim will die—poisoned by the products of his own machinery. It is as horrible as the Black Hole at Calcutta, and common as weeds in a neglected garden.

We are, therefore, prepared to hear him say, "I always had a bad taste in the mouth, my tongue and teeth being covered with a sticky, slimy matter. I was constantly belching up a foul gas or fluid that tasted sour as vinegar. After eating I had great pain and tightness in

the chest, back, and between the shoulders, with a choking feeling in the throat. As time went on I grew weaker and weaker through loss of appetite and lack of nourishment, until I could hardly follow my work. I tried all sorts of medicines I could hear tell of, but none of them did me any good.

"In June (1893) I was so run done and feeble I feared I should have to give up altogether. I was under a doctor for several weeks, but his medicines did me no good; I kept getting worse and worse. At last, in July of the same year, my mates at the Marsh Iron Works, where I was employed, told me about Mother Seigel's Curative Syrup, and urged me to give it a trial. I got a bottle, and after I had taken it a few days I felt a great improvement. My bowels acted naturally, as they had not previously done for twenty years, my food agreed with me, and I felt as if a heavy load had been lifted off me. Continuing to take the Syrup I gained strength rapidly, and have been in the best of health ever since. You will believe me when I say that I now recommend this remedy to everybody who suffers from the same complaint. You are welcome to publish my statement. Yours truly, (Signed) John Stafford, 15 Spa Terrace, Marsh Lane, Preston, October 11th, 1893."

Indigestion is primarily a disease of the stomach and constipation is one of its results. On account of the torpidity of the liver (an accompaniment of indigestion), little or no bile is poured into the bowels, and the fluids of the intestines being dried up by the feverish action there, the partly digested stuff from the stomach becomes hard and solid in the lower bowel, and clogs it. Then it putrefies, producing all the evils from which our friend suffered. Seigel's Syrup cured him by setting things right at the source of the trouble. We congratulate Mr. Stafford on his escape; it was narrow enough for the strongest and boldest.

The scales will tell him he weighs more than he has in twenty years: his feelings tell him that he could stand on an egg and not break it.



"ROUGH ON RATS" THE GREATEST INSECT AND BUG DESTROYER ON EARTH



SOLD ALL AROUND THE WORLD.

Is used by all civilized nations, and is the most extensively advertised and has the largest sale of any article of its kind on the face of the globe.

CLEARs OUT

**Rats, Mice, Ants,
Hen Lice, Sparrows,
Skunks, Squirrels,
Weasels, Jack Rabbits,
Moles, Gophers, etc.**



CLEANs OUT

**Flies, Water Bugs,
Roaches, Beetles,
Insects, Chipmunks,
Moths, Potato Bugs,
Gophers, etc.**

Gone where the Woodbine Twineth.

"Rough on Rats" pays the retailer 100 per cent., and is the most extensively advertised article in the world. It is now "the" staple with the trade and public in United States, Canada, Mexico, Central and South America, Great Britain, France, Germany, Africa, Australia, India, East and West Indies, etc., etc. Sells the world around.

No loss by breakage or evaporation. Will keep a thousand years in any climate. Always does the work.
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EMPTY ORAL GELATIN CAPSULES,
 Nos. 00, 0, 1, 2, 3, 4, and 5.

In boxes containing 100, any size	per doz.	\$0.90
in gross lots	per gross.	10.00
in half-gross lots	per gross.	10.50
In boxes containing 1000	per doz.	7 80
In bulk (boxes of 5000)	per box.	3 10

Brittle capsules are exceedingly expensive to handle—ofttimes more are broken than used. Caps and bodies that do not fit perfectly are a source of annoyance and loss—not only loss of capsule but also loss of drug. Capsules that are liable to soften during warm weather, that are slightly odoriferous, and ill-tasting, are certainly expensive at any price. Our capsules are pliable—not brittle—and perfectly soluble. Manufactured of the finest French gelatin. Cheap gelatin makes cheap capsules. No softening during warm weather, no disagreeable smell, no obnoxious taste, no air-holes, no discoloration. We believe you will find it to your own interest, as well as ours, to specify P., D. & Co. on all orders.

A WORD OF CAUTION.—Our packages are being closely imitated; one way of acknowledging the superiority of our capsules. If they were not the very best on the market, no one would care to imitate the packages. Having favored us with your preference, therefore, please be careful to see to it that your order is filled as written.

