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MORSE & PIERCE, PHILADELPHIA

CANADIAN PHARMACEUTICAL JOURNAL

A MONTHLY REVIEW OF CHEMISTRY & PHARMACY
THE ORGAN OF THE CANADIAN DRUG TRADE

© Vol. XXXI NOVEMBER 1904

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Creamery

- - Butter Color

Affords the retail druggist a large profit and GIVES
UNIVERSAL SATISFACTION to consumers.

CREAMERY

Is not only the best but the handsomest Butter Color
on the market.



Archdale Wilson & Co.,

Wholesale Druggists,

HAMILTON

"Stainless Iodine Ointment."

A great advance in Iodine Preparations.

Does not discolor nor crack the skin.

Is being used by prominent physicians and the Toronto General Hospital.

It is put up in bottles containing 1 oz. each; 12 bottles are placed in an attractive box for counter exhibition.

Price, \$1.80 per doz., Retails at 25c. per bottle.

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OR WRITE

G. BROWN & CO.,

Proprietors

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YOU HAVE BEEN ASKED FOR



Egyptian Egg Shampoo
Turkish Shampoo
Dr. Sage's Hair Saver
Creme de Rose
Turkish Cometique

WHY NOT ORDER THEM FROM YOUR
WHOLESALE HOUSE,
OR WRITE TO US ABOUT THEM?

Send to us for samples of our Unique Astringent Pencils,
and our EXTRACT OF BAY RUM.

More Bay Rum is made from our Extract than from all
other Essences, Extracts, &c., combined.

ITS COST IS \$2.50 A POUND.

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WINSOR BARKER CO.

LIMITED

50 Adelaide St. W., TORONTO



Baby's



Own



Tablets.



The ideal medicine for children, and are bound to become a household word. They are distinctly a pioneer and have no competitors in the field.

EVERY DRUGGIST SHOULD HAVE THEM. RETAIL AT 25c.

Baby's Own Powder for nursing and toilet, best on the market. Large box. Good seller. 25c.

Electric Pills for Blood and Nerves, Heart and Brain Tonic. 50c.

Golden Grains. Little Pills for Liver, Bowels and Kidneys. 25c.

Seven Spices. Tablets for all Stomach Troubles. 50c.

Pleasant Powders for Headaches, Monthly Pain, Colds, Neuralgia, etc. 25c.

Write us if your Wholesaler is not stocked.

NOTE—We do not sell our goods to departmental stores or to cutting concerns, and we will, as in the past, endeavor to protect the interests of the retail druggists.

The Dr. Howard Medicine Co.,
BROCKVILLE, ONT., CAN.

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Sole Agent for the Dominion of Canada
and Great Britain for

D. RANSOM, SON & COMPANY
STANDARD FAMILY MEDICINES

Ransom's Hive (Croup) Syrup and Tolu
for Coughs, Croup, etc.

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for Inflammation, etc.

Dr. Ransom's King of the Blood
is being introduced in the Dominion of Canada.

This remedy has had an extensive sale throughout the United States for the past thirty years.

Being desirous of securing the co-operation of the drug trade on these articles, if you will write for our special offer in advertising it will be well worth your while. This special offer will be open for twenty days only after the issue of this paper. Address

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TORONTO, Canada

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The GREAT INTERNATIONAL ROUTE between the EAST and the WEST.

THE ONLY LINE RUNNING FOUR FAST EXPRESS TRAINS DAILY BETWEEN

MONTREAL, TORONTO, NIAGARA FALLS AND CHICAGO.

The Great Scenic and Tourist Route. — The only line affording delightful views of all the principal Cities and points of interest along the picturesque banks of the St. Lawrence River and shores of Lake Ontario.

The only all rail route from the West to Cacouna and Dalhousie, the fashionable Sea side and Sea bathing resorts on the Gulf of the St. Lawrence.

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SOLID EXPRESS TRAINS

Steam heated and electric lighted between Montreal and Halifax, via Levis and the Intercolonial Railway, affording passengers a panoramic view of the historic City of Quebec, its fortifications, Wolfe's Cove, the Plains of Abraham, the Isle of Orleans, the Falls of Montmorency, the unsurpassed and mountainous scenery of the Metapedia Valley. The Salmon fishing grounds of the Metapedia and Restigouche Rivers, the Baie de Chaleur and the Laurentian range of the Gaspé Coast.

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Reed & Carnrick's Preparations.

Protonuclein (Powder)
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Carnrick's Soluble Food, 8 oz.
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Lacto Preparata, 8 oz.
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Lacto-Cereal Food, 8 oz.
" " " 16 oz.
Cordial Analeptine.
Sulpho-Calcine.

Zymocide.
Pancroblin (Liquid).
" (Pills).
" (Pills, comp. and tonic).
Corrigent Pills.
Analgesine Tablets.
Cardiene Tablets.
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Kumyss Powder.
Sulphur-Tartrate Tablets.
Velvet Skin Soap.
" " Powder.

Duncan, Flockhart & Co.'s

Blaud's Pill Capsules

**ARE SOFT AND FLEXIBLE
NEVER BECOME HARD**

**NEVER BECOME OXIDIZED
NEVER VARY IN STRENGTH**

These Capsules are put up in 1, 2, and 3-pill sizes, with or without Arsenic, and can be supplied in boxes of 2 dozen or 100 each. They are prepared by a unique and original process, which entirely overcomes the tendency to **hardening** which is so common in the ordinary Blaud Pills.

FOR SALE BY WHOLESALE TRADE.

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88 Wellington Street West, TORONTO**

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Druggists' Confectionery.

The special attention of Chemists

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GLYCERINE PASTILLES

Beautifully Bright.

Perfectly Soluble.

Quite Transparent.

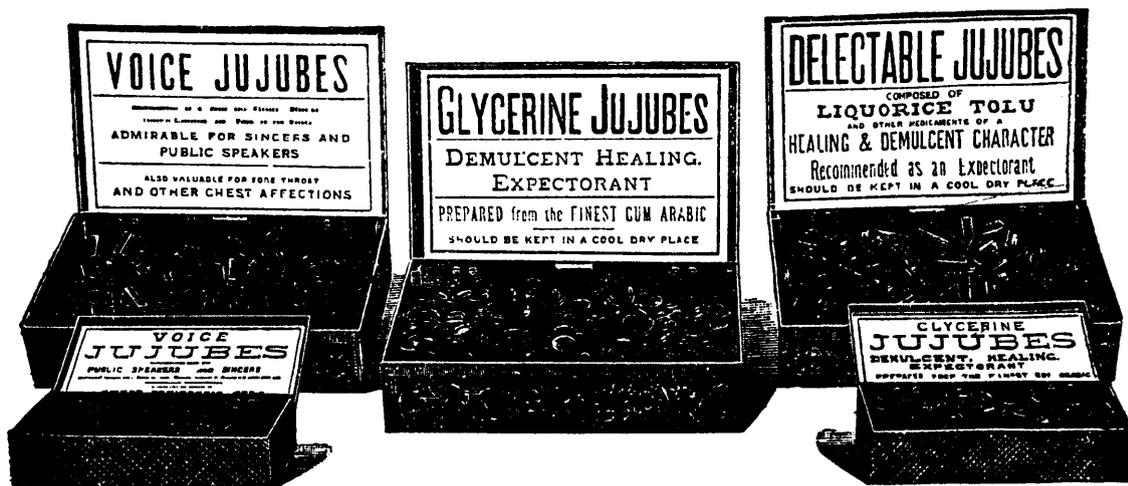
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By a process recently discovered, are producing the most charming

GLYCERINE PASTILLES AND JUJUBES

Ever offered to the trade.

PUT UP AND SENT OUT IN 4 LB. GLASS JARS OR DECORATED TINS, AS DESIRED BY CUSTOMERS, AND BOTH FREE.



SAMPLES SENT ON APPLICATION TO THE WORKS.

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Cod Liver Oil.

When it is considered that the reputation of Cod Liver Oil was made several hundred years before the advent of the steam process, and that during all these years it maintained its high position as a medicinal agent, it must be admitted that the old time Cod Liver Oil possessed great value. Many of the virtues ascribed to Cod Liver Oil cannot be accounted for on the plea that it is simply a valuable fatty food, because no other fat has produced the same effects on the system as the oil derived from the liver of the cod. Since 1822 leading scientific men in various parts of the world have been investigating the subject of Cod Liver Oil chemistry for the purpose of ascertaining if possible to what principle, or principles, the peculiar alterative or stimulating properties of the oil were due. These researches have finally established the fact that the source of the extractive matter found in the oil is the liver parenchyma and its occurrence in the oil is purely incidental. The fatty matter consists of nothing but fat, while the extractives contain the peculiar principles which have given Cod Liver Oil its great reputation as a therapeutic agent for so many centuries.

The above is an excerpt from our brochure "From Source to Finish," which gives a detailed description of the preparation of Wine of Cod Liver Oil. This little book we will gladly mail to any pharmacist who may be interested enough in the subject to write to us for a copy.

FREDERICK STEARNS & CO.

MANUFACTURING PHARMACISTS,

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Send for new advertising matter to decorate your window and draw trade.

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The Wingate Chemical Company

B. E. MCGALE, Manager.

Corner of Notre Dame
and Maple Avenue, Montreal.

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MALTINE (Plain).
MALTINE Ferrated.
MALTINE with Cod Liver Oil.
MALTINE with C.L.O. and Hyphos.
MALTINE with Pepsin & Pancreatine

MALTINE with Hypophosphites.
MALTINE with Cascara Sagrada.
MALTINE with Peptones.
MALTINE with Phos. Iron Quinia and
MALTINE WINE. [Strychnia.

MALTINE WINE with Pepsin and
 [Pancreatine
MALTINE WINE Beef and Iron.
MALTINE with Coca Wine.
MALTO-YERBINE.

New York Pharmacal Association's Preparations

LACTOPEPTINE POWDER (ounce bottles).
 " (¼ lb. bottles).

LACTOPEPTINE ELIXIR. Plain.
 " Iron, Quinia and Strychnia

Lactopeptine Tablets.

Arlington Chemical Company's Preparations.

Beef Peptonoids (Powder).

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Peptonoids Iron and Wine

Liquid Peptonoids with Coca.

Liquid Peptonoids with Creosote

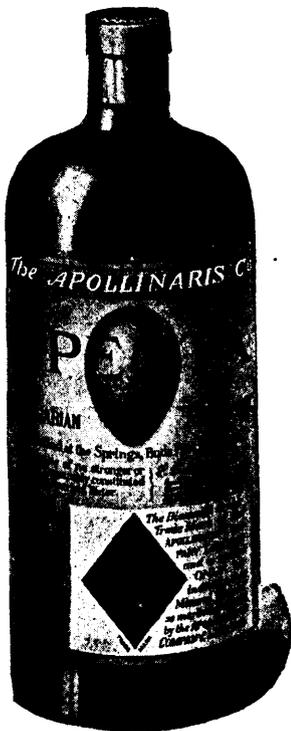
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UNDER EMINENT SCIENTIFIC CONTROL.

"APOLLINARIS"
 THE BEST NATURAL MINERAL WATER



The Prices to **RETAILERS** are as follows:

\$5.50 Case of 25 large glass bottles

\$8.50 " 50 small " "

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SEE that the Labels bear

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Sole Exporters:

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CANADIAN PHARMACEUTICAL JOURNAL AND PHARMACAL GAZETTE

VOL. XXXI.

TORONTO AND MONTREAL, NOVEMBER, 1897.

No. 4

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—AND—

PHARMACAL GAZETTE

ISSUED MONTHLY.

EDITOR J. E. MORRISON
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CANADIAN PHARMACEUTICAL JOURNAL
287 King St. West, Toronto, Ont.

THE PHYSICIAN AND PROPRIETARY MEDICINES.

The paper read by Dr. Fotheringham at the recent B.M.A. meeting, which we publish in this issue, is one which should be carefully perused by every physician and pharmacist. The sentiments expressed with regard to the flood of specialties now on the market will appeal to every druggist as being eminently fitting to the occasion.

There can be no doubt that the art of prescribing, and the knowledge of materia medica and therapeutics, are gradually becoming beyond the reach of the average physician, since all the labour of prescribing has been taken out of his hands by the enterprising manufacturer, who puts into the hands of the physicians ready-made prescriptions to suit any and all cases.

But it is particularly the relations between the pharmacist and physician that are of most interest to us. Dr. Fotheringham says: "When we specify the name of any maker we might, so far as the proper function of the chemist is concerned, just as well have the prescribed article sold at the grocer's, as the chemist's function becomes purely mechanical, and by this habit, we are assisting in placing ourselves more fully in the hands of the manufacturers, and in killing off our best assistant,

the retail chemist." Again: "What I wish to point out, is that the interest of the physician and his patients are usually more nearly identical with those of the retailer than with those of the large manufacturer, and that while in regard to certain preparations we cannot dispense with the services of the wholesale manufacturer, we need not, therefore, transfer our whole patronage to him and force the retail chemist to be merely a handler of the goods of his richer rival." This is sound common sense, but, unfortunately, many physicians do not see it in the same light, with the result that they are simply tools in the hands of manufacturers, and have lost all right to the name of physicians.

There is no doubt that much of the advances in therapeutics in recent years, is due to the enterprise of certain manufacturing houses by the introduction of new drugs, upon which they have spent large sums of money; but there is one class of concerns which prey upon the gullibility and ignorance of physicians—concerns which, by their push and enterprise, have foisted worthless or simple mixtures of well-known drugs upon the profession, as wonderful "coal tar compounds of the benzene series," ammoniated, phosphorated, and various other high-sounding titles, the basis of all of which is simply acetanilid with ammonium carbonate, etc., which are valuable only to the manufacturers; or the host of preparations ending in "ine" or "ol," sold with labels on which appear so-called formula specially designed for the purpose of misleading the physician ignorant enough to prescribe them. These are the preparations to which physicians should give a wide berth, and the sooner this matter is taken up and acted upon by medical societies the better it will be for medicine in general.

THE TIME FOR ACTION.

The announcement is made that the Ontario Legislature is called to meet on Nov. 30th. Now what are you doing to help yourself in the matter of legislation? How many druggists have interviewed their local representative and interested him in the requirements of the profession? The Government are in a mood to be reasonable with pharmacists, and we ask no more. Already enquiries have been addressed to leading druggists by the department, as to what defects exist in the

Act, and wherein other legislation has borne heavily on the profession. An opportunity is now offered for each member to give a helping hand. Peradventure in the past there has been occasion for fault-finding with the Council. Under some circumstances, perhaps, wisdom was not exercised when approaching the Legislature, but what of that? The present is what we are dealing with. We say to the druggists of Ontario: Be up and doing; discharge your own duty, and then if you will, grumble at the other fellow. If you have suggestions to offer, send them to the chairman of the Committee on Legislation, Mr. A. Turner, Orangeville, or address them to the office of The Journal, and we will see to it that they reach the proper parties. A little effort put forth to advance the general welfare will benefit you by enlarging your sphere of action beyond the confines of your own shop. In any advantage that may accrue, you will receive a proportionate share.

THE PROPOSED PLANS.

Our contemporary, the *Canadian Druggist*, is somewhat mistaken in "the three plans." In the first place, there never were but two plans offered. The first was suggested by a joint committee consisting of representatives of wholesale, retail, and manufacturing interests. If the retailers can have been said to have offered a plan at any time, this is it, as every one of the five suggestions emanated from the offices of their society, were accepted by the committee and recommended to the manufacturers, who considered it impracticable.

This plan was as follows :

1. That the manufacturer shall make the wholesale drug and patent medicine jobber the only distributor of his proprietary medicines. Manufacturers, however, are at liberty to sell to others than druggists, from their wagons, taking from each a contract not to sell for less than the marked price.

2. That all proprietary medicines shall be sold only under contract to the wholesaler, and by them in turn under contract to the retailer.

3. That there shall be no scaling of prices to the retailer.

4. That the manufacturer be recommended to make it a condition in all contracts with the newspapers, that under no circumstances shall they be allowed to advertise their medicines at less than marked retail prices.

5. That in order to enable the manufacturers to carry out this scheme, the retailers would be willing to have prices to them advanced on a basis of \$2, \$4 and \$8.

This, as we say, was considered impracticable by the P.A.T.A. of Canada, who suggested the following, at their meeting, Sept. 7th:

1. We are in sympathy and full accord with any measures that will result in the suppression of cutting.

2. That all proprietary articles should be sold through the drug trade and general stores.

3. The plan put forward at the last meeting was not deemed practicable.

4. It is the opinion of this association that, in order to stop this evil, all proprietary articles should be sold direct to the retailers, or through the manufacturers' regularly appointed agents.

5. Each manufacturer will then be accountable for his own goods. If they get into the hands of the cutter it will be the business of the manufacturer or his agent to trace and adopt a system of tracing, so that further supply may be cut off.

6. The wholesale drug and patent medicine jobbers to be constituted agents.

7. The manufacturers thus using their efforts to this end, shall require the retailers to discontinue the sale of all goods that are intended to substitute or replace regular advertised articles.

8. If the retailers will agree to this, the manufacturers believe that they can control the sale of their goods, and that they will pass through the regular drug channels.

9. This is not intended as shutting out the wholesale trade, but if the cutting evil is to be stopped, this seems the only plan, in our judgment, that will further it.

10. This plan is submitted for the approval of the jobbing and retail trade. If adopted by them we have full confidence in its success.

11. Arbitrary agreements or arrangements of price by wholesale drug or patent medicine dealers contrary to those of manufacturers should be abandoned.

As clause 10 suggests, this plan was submitted to the Ontario Society of Retail Druggists at the annual meeting, Sept. 8th.

Clauses 2 and 7 being objectionable in their reading, the following was suggested to replace them :

2. That in all villages and towns where drug stores exist, the druggist shall be the only person through whom patent medicines shall be sold.

7. The manufacturers thus using their best efforts to this end, shall require the retailers to supply whatever article is asked for in every instance, provided the manufacturer protects the retailer so that the full advertised price may be obtained.

Clause 4 of the first plan was again recommended to the manufacturers.

FROM THE P. A. T. A. STANDPOINT.

"And should it prove the case that the retailers accept the position indicated, we trust their influence may have avail with the wholesale distributors of goods to incline them to make a sacrifice."

* * * * *

"The question is not what the profits on proprietary articles should be to the jobber, but it is How to stop cutting. It is sincerely to be hoped that the wholesale trade will ultimately join in this practical proposition to relieve the retail trade."

* * * * *

“An Infant Food Approaches Perfection in the Degree in which it Resembles Human Milk.”

“I have at frequent intervals analysed the humanised milk as prepared with the Peptogenic Powder, have made many analyses of milk and of ‘infant foods,’ and have studied the various methods of treating milk for the artificial feeding of infants. As a result of this experience, I feel confirmed in the conviction that the Peptogenic Milk Powder with the method given is the most exact, natural, and practical means at present known of rendering cows’ milk suitable as a comprehensive substitute for woman’s milk.”

Dr. ALBERT R. LEEDS.

“Cows’ milk, modified by the addition of water, cream, and Peptogenic Milk Powder, offers a product containing to the full extent all of the proximate principles present in human breast milk and wholly free from extraneous admixtures. The proportion of solid matter, fat, albuminoids, carbohydrate, and inorganic salts corresponds as closely as one could ask with what is considered as the average chemical composition of mother’s milk, and in this respect the product differs notably from all of the other products examined. Further, the process of modification takes into account the radical difference between cows’ casein and the human casein, and affords a method by which the former can be modified to a closer resemblance to the latter without the addition of any substance that will permanently interfere with the purity of the final product.

“The general resemblance of milk modified by the Peptogenic Milk Powder to the infant’s natural supply is a very striking one.”

Dr. R. H. CHITTENDEN.

“The object to be accomplished in the preparation of cows’ milk is to make it resemble human milk as much as possible in chemical composition and physical properties.

“When properly prepared, the resultant, so-called ‘humanised milk’ [prepared with Peptogenic Powder] presents the albuminoids in a minutely coagulable and digestible form; has an alkaline reaction; contains the proper proportion of salts, milk, sugar and fat; is not bitter in taste, being but partially peptonised, and in appearance as well as chemical composition resembles human milk.”

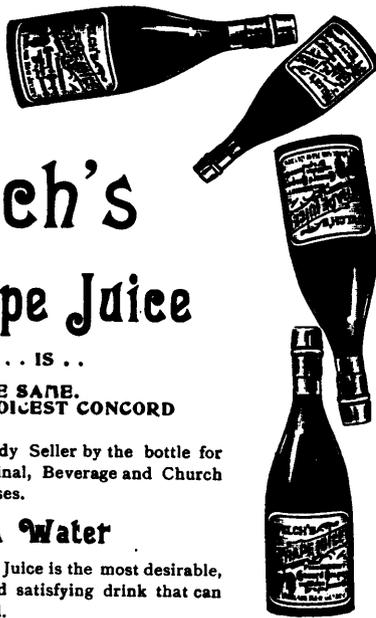
Dr. LOUIS STARR.

PEPTOGENIC MILK POWDER yields the “perfection” of an infant food. It renders cows’ milk almost identical with human milk.

**FAIRCHILD BROTHERS & FOSTER,
NEW YORK.**

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BOTTLES
ANY WAY
YOU WILL



Welch's Grape Juice

... IS ...

ALWAYS THE SAME.
ALWAYS CHOICEST CONCORD
GRAPES.

A Ready Seller by the bottle for
Medicinal, Beverage and Church
purposes.

For Soda Water

This Grape Juice is the most desirable,
healthful and satisfying drink that can
be dispensed.

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HOW AND WHERE to get our Remedies.

	PER DOZ.	1 GROSS
Dr. Coderre's Red Pills for Pale and Weak Women.....	\$4.00	\$40.00
In 3 doz. lots, 5 p.c. discount.		
Dr. Coderre's Plasters.....	2.00	20.00
In 3 doz. lots, 5 p.c. discount.		
Dr. Coderre's Purgative Tablets	2.00	20.00
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Dr. Coderre's Injection Powder.	2.00	20.00
In 3 doz. lots, 5 p.c. discount.		

To obtain the 5 per cent. discount, the order must be for net
less than 3 dozen of any one of our Remedies. Special price in
larger quantities. F. O. B. MONTREAL.

Correspondence Solicited.

N.B.—We will not sell to Price Cutters.

Our remedies are meeting with the greatest success
wherever introduced, simply because they are **Reliable
Specialties**. Refuse no sale on them. Get them from
your jobber; he has them for you. Or mail your orders
to the

Franco-American Chemical Co.,

87 St. Charles Borromeo St.,

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Pure Powdered Drugs

Bought from the gatherer,
Ground by our own mills,
Put up in card-board boxes,
Sold at best market prices.

WHAT WE INTEND TO DO IS _____

Supply powdered drugs, absolutely guaranteed,
in any grade of fineness, put up in the most
convenient form, at the lowest prices compatible
with the highest quality.

Write for **SAMPLES** and **PRICES** of
any Drugs you require.

Send for sample of our **COMP. POWDER WHITE
PINE** for making **SYR. WHITE PINE CO.**

Do not forget that we are Agents for **CARNOGEN**
and all of **KEASBEY** and **MATTISON'S** Goods.

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Holgate-Fielding Co.,

LIMITED

25 Melinda Street,

TORONTO

Fine Confectionery for Druggists

Stewart's Extra Strong Horehound.

Stewart's Cough Drops have no equal.

Stewart's Floral Tablets.

Stewart's Fine Chocolates in great variety.

Stewart's Medicated Lozenges.

Before placing your orders for goods in this line,
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A. J. STEWART

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HARMLESS

TEABERRY

25c. FOR THE

TEETH

ZOPESA CHEMICAL CO. TORONTO.

"Will the Proprietary Association abandon the effort, in view of the attitude of the Wholesale Druggists' Association?"

* * * * *

"Why will they not accept what our facetious member of the P.M. trade referred to as a 'Jubilee offering'?"

* * * * *

Now, the above are really good, coming as they do from the mouthpiece of the manufacturing interests. We wonder if the writer of the above considers the whole drug trade of the country as existing in a state of blissful ignorance, regarding conditions which have prevailed for the past two years? We would like to ask who has been making sacrifices during that period? Who has been putting forth efforts to relieve the retail trade? We venture the assertion that there is not a wholesale jobbing house belonging to the association which has not turned down orders amounting to thousands of dollars, *principally for proprietary articles*, in their efforts to protect the retailer, and what has been the result? Only to see that much trade diverted into outside channels, through which the stream flows freely into the hands of "cutters," and departmental stores. Not a bottle or package less patent medicine has been sold, because of this action on the part of the wholesale jobber. Verily, the sacrificial offertory of the proprietors has not been characterized by munificent lavishness. Now, what is this heinous offence of which the wholesale jobbers are guilty, and which is liable to render the whole efforts of the P.A.T.A. abortive? What the obstacle which they have raised to retard the onward "sweep of victory" of the "new system to protect from the action of cutters, unanimously decided upon by the association?" Simply this, that their association took exception to the introduction of side issues and questions not pertinent to the matter under consideration, and objected to clause II of the plan, which reads as follows:

"That the wholesale drug and patent medicine dealers abandon all arbitrary agreements or arrangements of prices contrary to those of the proprietors or manufacturers."

What effect the acceptance or rejection of this clause can have upon the ultimate success or failure of the "new system to protect from the action of cutters," passes our poor comprehension; or why the subject was dragged into the discussion, is a mystery, which perhaps some interested parties can solve.

If this mole-hill is all that stands in the way of success, we can suggest an easy way around or over it. Let the proprietor offer his goods to the trade at the proper price, and the jobber will have the option of accepting the same or losing the sale. Now, for fear of being charged with animus, let us state that we have no place in our make-up for that commodity. We appreciate to their full extent the honest efforts of the P.A.T.A. and its members, who are earnestly endeavoring to solve rather a difficult problem.

Neither do we carry a brief from the wholesale jobber. We are simply actuated by a desire for "British fair play." And for the manufacturers to endeavor to use them as material out of which to construct a "soft spot to fall on" in case of failure, is hardly justice.

For the retailer we have nothing to say at this juncture. He is every day demonstrating that he is abundantly able to take care of himself in the scrap.

THE METRIC SYSTEM.

We are pleased to note in our Ottawa news that Sir Henry Joly de Lotbiniere is about making systematic efforts to popularize the metric system in this country, and Sir Henry has generally made a success of anything he has undertaken. We have on several occasions expressed our views on the need of a change in our system of weights and measures, and we are glad to see that the Government is now taking it up, and in a way which will render it familiar to the growing generation, and that is what is most important. If this action will only impress upon teachers and the public the immense amount of time now lost to school children in acquiring the knowledge of our present cumbersome system of weights and measures, a great advance will have been made. It is to be hoped that a few years more will see the metric system popularized and legalized, and the only one in use in this country, and then we will look back and wonder how it was that we worried along with our pounds, ounces and pints, just as we did when we dropped pounds, shillings and pence, and took up the more convenient decimal system of currency.

ANOTHER STEP IN THE "VIN MARIANI" CASE.

THE GOVERNMENT TO DECIDE.

Such is the ruling of Deputy Magistrate Kingsford in the Queen v. F. H. Holgate. Our readers are familiar with the particulars of this case. License Inspector Hastings purchased a bottle of the wine from Hooper & Co., and then laid a charge for violation of the License Act. Since the evidence was put in, a few weeks ago, the Magistrate has had the case under consideration, and on Oct. 11th delivered his judgment, which is not final, but will allow the Government an easy way out of a difficult position. Following is the judgment:

"From the evidence adduced by the defence, it appears to me that the Vin Mariani is not within the equitable intention of the Liquor License Acts. It may come within the technical construction of those Acts, because there is wine used in its preparation, and in one sense it may be considered an intoxicant. If I were compelled to act on the absolute literal interpretation of the Act, I would feel myself obliged to convict, but on the common sense and equitable construction of the statute I cannot bring myself to adjudge that a proprietary article, which, according to the evidence, has for

a long time prior to the passing of the amendment of 1897 been used as a medicine and as a tonic, and apparently valued by the medical profession, should not be purchasable at a druggist's without a medical certificate. It does seem to me that it should not be sold in wine shops at all. As the defence has brought to my notice instructions from the Attorney-General's department, to the effect that well-known patent or proprietary articles containing liquors are not to be interfered with, I have come to the conclusion that I will request the Crown Attorney, who has charge of the prosecution, to report the evidence to the Attorney-General, with the suggestion that the prosecution be withdrawn. If I were to impose a fine on the defendants I do not think that the ends of justice would be served. I shall, therefore, request the Crown-Attorney to lay these views before the Attorney-General and request his intervention."

LODGE DOCTORING.

The College of Physicians and Surgeons of the Province of Quebec has decreed that in future any member accepting a position as lodge doctor under the usual tariff rates will have his license to practise taken away from him, and much excitement among fraternal societies has been aroused thereby. There may be some need for action in this matter, but we think there are other abuses the remedying of which are more urgent than this question. For instance, we believe that this is one of the few countries where doctors are permitted to manufacture and sell patent medicines, and we would urge upon the College the necessity for putting a stop to this practice, which can only tend to degrade the whole profession in this province. It would not be tolerated in England, on the Continent, nor in Ontario, and certainly should be put an end to in this province.

EUREKA.

He is found. The man who possesses the secret sought after by the wise men of the ages, and for which the ancient alchemist "burned the lamp so late into the struggling day." The man who can turn the baser metal into gold. Unlike the ancients, this wise man comes not from the East, but West. Dayton, Ohio, claims him as her son, and Chicago is his stopping place.

E. C. Brice by name, he has been in Toronto, with the object of purchasing antimony, out of which he claims to make the yellow metal. Mr. Brice says he has made gold, and has within the past few months sold \$4,000 worth of the yellow metal made from antimony.

A *News* reporter asked Mr. Brice why he had come to Canada for antimony.

"Owing to the wash-out in the mountain roads in Utah," said he, "we are unable to get at our source of supply. We are, therefore, obliged to look elsewhere for the substance."

"Suppose you are able to make gold from antimony," asked the reporter, "is the known available supply of the mineral sufficient for you to go on making gold in large quantities?"

"Yes, I think so; there are large quantities of it in the mountains of Utah, but most of the commercial antimony comes from Japan. We prefer the crude product, however, and are prepared to buy all the antimony we can get in Ontario."

Mr. Brice here explained that there was less antimony than gold in the Province of Ontario, the only deposits being in the township of Barrie, in North Frontenac.

DEPRECIATION WILL NOT FOLLOW.

The reporter then asked the alchemist a few questions about the gold he declares he has made.

"If you could make gold in large quantities," the reporter asked, "would it not lead to a depreciation in the value of the metal and bring about a sort of a free gold question?"

"That is a matter with which my syndicate has no more to do than I," said Mr. Brice. "If such a question ever arose, the output would probably be controlled so as to prevent depreciation."

"Is the process cheap enough to make the manufactured gold less costly than the natural gold?"

"Yes, it is comparatively cheap when made on a large scale."

"Is it difficult?"

"No. A blacksmith possessed of the secret could make gold in his forge."

Editorial Notes.

It is an outrage that a law should exist in a free country, under which a man could be prosecuted for selling a plaster which a lady swore in court cured her of a cancer. The preamble of the various Acts governing the different professions state as one of their objects: "The protection of the public." What a parody! Here we have a man possessed of a remedy for one of the most fatal diseases, admitted so by the medical profession, and because he sells that remedy and saves a human life, forsooth he must be hauled by an officious private detective before a magistrate, and put to the annoyance and expense of defending himself against a criminal charge. Magistrate Denison took a commonsense view, and dismissed the case. And the very pertinent remarks uttered by him might be read with profit by our law-makers.

The new Government laboratories were opened on the 1st October, many of the prominent English analysts and pharmacists being in attendance. The laboratories, which have been built under the supervision of the director, Dr. Thorpe, cost about £30,000, and are unsurpassed in the facilities for work, all the latest improvements in apparatus and appliances, from refrigerating apparatus to burettes, being utilized.

“FLY PADS.”

ARCHDALE WILSON & CO.

Direct the attention of the Drug Trade to the judgment of the 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 AND 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 paper so 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.

ARE YOU SELLING "THE BEST" AND MOST RELIABLE

**PLANTEN'S
CAPSULES**

Filled Capsules
Standard Soluble Hard,
15 Minims.
Elastic Soft and Hard,
10 Minims.
Improved French,
5 Minims.
Extra Large Soft,
1-5 Grammes.

**PLANTEN'S
PERLOIDS**
REGISTERED TRADE MARK

Or Pearl Shaped Capsules
2, 4 and 5 Minims.

PLANTEN'S COMP. C. & C. OR BLACK AND SANDAL WOOD OIL **CAPSULES**

Are Celebrated the World over for Uniformity and Reliability.
Sold by all Druggists in the Dominion of Canada.

"THE PIONEER AMERICAN
CAPSULE HOUSE."

H. Planten & Son (Established 1836) **New York.**

**SPECIFY PLANTEN'S
ON ALL ORDERS.**

HIGHEST AWARD AT CHICAGO EXHIBITION.

**ABSOLUTE PURITY GUARANTEED BY USING
T. & H. SMITH'S
Chloroform Pure, Morphine and Salts**

[Answering all recognized purity tests.]

And Other Fine Chemicals.

From all Wholesale Houses Throughout Canada.

T. & H. SMITH & CO., MANUFACTURING CHEMISTS.

Edinburgh, Scotland, and 12 Worship St., London, England.

**WAMPOLE'S
BEEF, WINE and IRON**

In Pint Bottles.....\$5.00 per doz.
Winchester (½ Imp. Gal.) 2.00 each
Imp. Gal., in 5-gal. lots and over, 3.50 per gal.

With handsome lithograph labels, buyer's name prominently printed on same, at following prices:

½-gross lots, and over.....\$60.00 per gross
Packed in ½-gross Cases.

We use a pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct to us.

Very truly yours,

HENRY K. WAMPOLE & CO.

Manufacturing Pharmacists

Canadian Branch: **PHILADELPHIA, Pa.**
36 & 38 Lombard Street
TORONTO, Ont.



The reasons that Druggists should handle

BROCK'S Bird Seed

—are—

1. It is a perfectly clean, pure seed.
2. It contains no hemp.
3. The package contains a cake of Bird Treat for toning up the bird.
4. It contains a piece of Cuttle Fish Bone.
5. Because your customers will like it better than any other.

Order from your jobber; if he don't keep it write

NICHOLSON & BROCK,
Colborne St., TORONTO

The National Wholesale Druggists' Association and the Proprietary Associations held their annual conventions at Richmond, Va., Oct. 11 to 15. The officers elected were C. F. Weller, Omaha, president; A. B. Merriam, Minneapolis, secretary; E. L. Strong, Cleveland, Treasurer. For the Proprietary Association, Thomas Doliber, Boston, re-elected president; Jos. Leeming, New York, secretary; H. H. Harding, New York, treasurer. The next meeting will be held in St. Louis.

The largest amount of duty ever paid for an entry of tea was made recently by Lipton, in the form of a cheque for £50,513 11s. 5d., covering the import duty on a clearance of 1,300 tons of tea. The highest amount ever paid in the United States on a single entry was \$185,383, paid by the American Sugar Refining Co., on eleven million pounds of sugar. The entry was passed on Oct. 2.

The explosives department of the Home Office has decided that acetylene, when compressed in cylinders at a greater pressure than one atmosphere, will be subject to all the regulations governing the storage and handling of explosives.

Now is the time to look after your winter supplies of freezable goods, such as mineral waters, solutions, emulsions, and aqueous preparations of all kinds.

A WOODSTOCK WINNER.

We clip the following from the Woodstock *Sentinel-Review*: Pepper's drug store window is always a study. J. T. Pepper, druggist, had the pleasure of winning first prize for dressing his drug store window better than any druggist in Canada or the United States. The display took place last spring, a photo of the window being sent to Philadelphia, Pa., where they were judged by expert window dressers. The window display contest was held, and the prizes were awarded by Messrs. Hance Bros & White, manufacturing pharmacists, Philadelphia. The first prize was \$30 in gold coin, minted in Philadelphia, bearing this year's date. The gold coin may be seen at present in Pepper's drug store window. The competition was open to all druggists in Canada and the United States, and thousands made the attempt, but there could be only one first, and that was J. T. Pepper, druggist, Woodstock, Ont.

Mary had a hollow tooth,
 She didn't like to show it;
 Old age was superseding youth,
 But she wouldn't have us know it.
 One day she had it filled with gold,
 Because she couldn't spare it,
 And now, although she's getting old,
 She likes to grin and bear it.

Selected Papers.

THE PHYSICIAN AND PROPRIETARY MEDICINES.*

BY J. T. FOTHERINGHAM, LECTURER IN THERAPEUTICS,
 TRINITY MEDICAL COLLEGE.

It seems to me, that subjects such as we can properly discuss in this section, are apt to permit of an unusual divergence of opinion, as our knowledge in practical application and result is apt to be peculiarly inexact, the abstract facts as to the action of remedies being liable to the rudest of upsets in actual practice and result, partly from the difficulty of reasoning in any given case from real remotest cause to actual physical, and not merely imaginary effect, since the pitfall *post hoc ergo propter hoc*, is ever yawning for the feet even of the best of us. Partly also is this hiatus between theory and practice in therapeutics, due to idiosyncrasy, to individual intractability of the patient, to any of the many subtle, physical, emotional, and other intangible and indefinable differences in individual cases of the same disease, so elusive and yet so familiar to us all. So that in casting about for a subject I thought of this one, as having an important bearing upon the welfare of our patients, and therefore, capable of being made profitable to ourselves, if properly dealt with and discussed, and yet not calling for any large extent of technical or experimental knowledge. This experimental knowledge we are not ashamed to admit, cannot exist at first hand in a new and not as yet wealthy country like Canada, where most of those engaged specially in therapeutic study must at the same time live by the laborious and more or less remunerative practice of their profession, and have little opportunity for experimental or original investigation.

It seems to me that with this explanation, I can say that my subject, the prescribing of proprietary instead of pharmacopoeial preparations, should be both timely, acceptable, and profitable, and my modest endeavor will be to make it so. It is first timely because of the undoubted tendency of the profession of late years, at any rate, on this continent, to desert the pharmacopoeia, and to wander like lost sheep into strange pastures and devious ways laid down for them by shepherds not disinterested. It should, secondly, be acceptable to any medical body, because the profession everywhere, whether, to use the Gilbertian phrase, "Russian, or Swede, or Turk, or Prussian," is, with a few isolated and contemptible exceptions, a unit in condemnation of nostrums and compounds and panaceas, and of all attempts to turn to private profit either the needs of the suffering, or the talents and experience of the patient clinician and investigator, whose rewards are always so disproportionate to the benefit he confers upon mankind. And if, thirdly, my paper be unprofitable, the fault will be mine, and I pray you to help me out by free discussion and criticism.

*A paper read at the B. M. A. meeting at Montreal.

It might be well to clear the underbrush of our discussion by mentioning briefly some of the causes of the upgrowth of this custom of late years. One is the insistence of the manufacturers, who, often without real knowledge of the merits of their wares, vend them with purely commercial motives, strenuously claiming superiority as they might for a particular kind of bicycle or brand of cured meats. And at this point I wish freely to acknowledge that the profession is very much indebted to the genuine scientific ardor and often very remarkable enterprise shown by many of the drug manufacturers. We owe to them not only many useful and palatable preparations of the old drugs, but the introduction of several most useful new ones. These considerations, however, need not blind us to the exact nature of the relations which alone can properly subsist between the physician and the dealer in drugs. This by the way. A second cause of the custom is the clamor of the public for more palatable medication, born partly of the increased fastidiousness which accompanies the general diffusion of knowledge, not to say superficiality, of these days, partly of the diligent propaganda carried on by homeopaths, faith curers, mind curers, Christian scientists, theosophists, *et hoc genus omne ad nauseam*, which fester and flourish, especially in this continent, as evil germs do in the thermostat of the laboratory; born partly also of our own ignorance or carelessness in the matter of dispensing remedies in needlessly unpalatable form. A third cause for the increase of this custom is the bad influence of a large section of the medical press. We are for our professional sins afflicted by a set of advertising media, called medical journals, ostensibly controlled by the editors, but really dominated by the sheerest commercialism, having only a few pages of reading matter, usually of little merit, but padded full of puffs from men signing themselves "M.D.," for all kinds of proprietary affairs of unpublished formula. These journals are useful only to the manufacturer, and are admittedly dependent, not upon the subscription lists, but upon their advertising columns, for they are usually distributed free on account of a guarantee given to the advertiser as to the size of the circulation list, and while we have here, both in Canada and the United States, very many reputable journals, which stand fast for professional integrity and independence, there has sprung up within the past few years a mushroom growth of journals which not only are unfit for the physician's waste-basket, but are not good enough, as the French phrase goes, *pour mettre en cabinet*.

And a fourth cause which must be mentioned is the enormous increase in the extent of the field of professional training, so that the student spends on absolutely essential subjects, such as anatomy, chemistry, physiology, histology, pathology—each one of which is yearly enlarging the domain of knowledge which it can call its own—so much time that he cannot become proficient as he should be in prescribing. And the teacher of therapeutics nowadays is so beset with the necessity of giving

rationale, and importing into actual practice generalizations discovered for him by the chemist and pathologist, that he is hard put to to get time for the Pharmacopoeia at all. Such, at least, is my experience as a lecturer on the subject. And we may rest assured that if the student is not compelled to become well acquainted with the official remedies and preparations before graduation, he will never acquire that knowledge afterwards, but will be easily and gently floated off into a "limbo" of "popular" remedies, a Sargasso sea, in which float aimlessly about whole shoals of Sanmetto and Antikamnia, and Palpebrine and Sennine, the new American antiseptic, and so on and so forth, to the world's end and therapeutic chaos.

So that I feel that upon us mainly who are teachers of therapeutics lies a most serious responsibility, one which it is impossible to exaggerate, and which I doubt not all of us feel, the responsibility for inculcating before our classes and maintaining in season and out of season, that wholesome conservatism which is of the very essence of the fit and trained medical mind, which leads one to make changes slowly, while it does not blind one to genuine merit.

It behoves us, of course, to discuss the subject in a discriminating fashion, and we should therefore now define and in some way classify proprietary articles. The Pharmacopoeial preparations, of course, need no definition. And I should define a proprietary article to be anything, whether of merely nutritive value, or of actual medicinal properties, or of value in surgery, which either by the copyrighting of the name or by the patenting of the process of manufacture, is sought to be turned to the exclusive pecuniary advantage of any individual.

Now, it is manifest at once that we are not justified in condemning the use of every one of such articles. For instance, we look upon the ordering of certain well-known infant foods, of certain gauzes and dressings, and of such drugs as antifebrine, ichthyol, diuretin, sulphonal, etc., as perfectly legitimate, and we should be able to lay down certain broad rules for their use. It seems to me that we must allow certain pecuniary incentive to investigation and enterprise on the part of lay producers of such commodities, for the public has a moral and indefeasible right to any useful means of cure; and we exist solely for the sake *curandi tuto cito et jucunde*. In a report on this question, prepared last spring by Charles Rice, the chemist to the Department of Public Charities of New York city, and approved by the commissioners of that department, as well as by the Medical Board of Bellevue Hospital, a very useful classification occurs. It is pointed out that a patent, as the word implies, prevents secrecy and insures the possibility of a general knowledge of the nature of the article and its mode of preparation. Moreover, the patent always expires after a fixed term, allowing what the law determines to be sufficient reward for the ability or enterprise of the patentee, and providing some sort of guarantee as to the fixity of standard and purity of the article. It is

Fully Ten Per Cent.

(10%) of gritty and coarse particles are removed from the finest English precipitated chalk that money can buy, by washing, straining, and again re-precipitating, before being combined with our "Q. C. LIQUID TOOTH POWDER" which is acknowledged by the leading dentists to supply, at last, a dentifrice that they "can safely recommend as free from grit and beneficial to the whole mouth."

Your teeth are less liable to decay when not worn away with gritty powders—and a powder *must* be used if a good color is to be maintained.



Retails 25c. per bottle

"Quickcure," Registered 1894 } TRADE MARKS {"Quickheal," Registered 1896
 "Pheno-Banum," " 1895 } {"Q.C. Liquid Tooth Powder," " 1896
 "Q.C." General Trade Mark, Registered 1896

Goods can now be secured at all wholesale jobbers by complying with the Company's conditions.

The Quickcure Company, Limited.

QUEBEC.

Kindly mention this Journal when writing to Advertisers.

Every Educated Pharmacist

Can tell by a single glance at the ingredients of the formula for **Palmer's Bronchial Sedative (P. D. & Co.)** that it is an

ADMIRABLE COMBINATION

well calculated to soothe all forms of bronchial irritation.

EACH FLUIDOUNCE CONTAINS :

Ammonium Chloride, . . .	30 grains.
Fluid Opium Camphorated, . . .	4 minims.
Fluid Tolu, soluble, . . .	8 minims.
Glycyrrhiza and Aromatics, . . .	q. s.

Per Dozen 16-fluidounce Bottles, - \$8.40.

DISAPPOINTMENT

is apt to follow fast on the heels of an attempt to prepare Bay Rum according to the published formulae, most of which are not worth the good paper they spoil.

A SUPERIOR QUALITY

of Bay Rum can be made readily and cheaply by the use of two fluidounces of

Fluid Bay Laurel Concentrated, P. D. & Co.,

in one gallon of diluted alcohol. The proportion of fluid may be varied to suit the purpose.

PER 16-FLUIDOUNCE BOTTLE, - \$3.00

Less usual trade discount.

PARKE, DAVIS & CO.,

Walkerville, Ont.

also pointed out that a copyright is perpetual, but does not prevent the sale of the same article under another name, as in the case of lanoline, anti-pyrine, diuretin, etc. And Rice gives a very useful definition of the term "Proprietary Article," as follows: "A thing over the production, or sale or use of which, some person or persons have exclusive control. In some cases the control extends over the three features mentioned in the definition, in others over one or two of them only."

The first rule that I should lay down is that we must resent and prevent, if possible, any stealing of our brains, not that we demand a share in the profits, but that we wish the public to have the fullest possible advantage, and the individual only a legitimate commercial profit. It makes one angry to hear of large drug concerns making annual profits of 40 per cent. on their capital, when the suffering poor are by the system denied the necessities, or even the comforts, which their richer neighbors can get; for in the eye of the physician, as in the eye of the Great Physician, the tortured nerves and twitching muscles of the poorest "love-child" are exactly as clamant for relief, and as deserving of it, as those of the world's greatest sovereign. It seems to me that a physician properly jealous of the rights of his patient, and of his own professional independence, will look on every one of these preparations with a discriminating prejudice. And the remedy is very simple. If the article is really a secret nostrum, with formula unpublished, avoid it absolutely. If it is of value, and the formula is known, put it at once in the *Pharmacopoeia*, and whenever possible intrust its preparation to the retail chemist. And here permit me to digress a moment. The day of Romeo's "apothecary in tattered weeds, with overwhelming brows, culling of simples," is of course, happily gone. We have transferred to the chemist of modern days, that part of the duties of our professional ancestry. He, the retail chemist, known to us personally, is the one on whose probity and accuracy we must rely for our success in the use of drugs. The centralization of trade in the hands of large manufacturing houses is slowly driving him to the wall, and we help in that process every time we prescribe a proprietary article. When we specify the name of any maker we might, so far as the proper function of the chemist is concerned, just as well have the prescribed article sold at the grocer's, as the chemist's function becomes purely mechanical, and by this habit, we are assisting in placing ourselves more fully in the hands of the manufacturers, and in killing off our best assistant—the retail chemist. I freely admit the great value of the modern pill or triturate—which, especially if made of powerful proximate principles or alkaloids, calling for great accuracy of subdivision and minuteness of dose—can be made only by wholesale and with extensive apparatus. But the profit goes almost entirely to the large institution, and the retailer is practically forced into methods and practices of which we often complain that they are dubious, or worse. What I wish to point out is, that the interests of the physician

and his patients are usually more nearly identical with those of the retailer than with those of the large manufacturer; and that while in regard to certain preparations we cannot dispense with the services of the wholesale manufacturer, we need, not, therefore, transfer our whole patronage to him, and force the retail chemist to be merely a handler of the goods of his richer rival.

We may get further light upon our proper attitude in the matter, by triangulating the question, as topographical surveyors do the inaccessible areas of lake or mountain. The three points will be the Patient, the Trade and the Profession—and we shall mention some of the disadvantages and advantages, if there are any, to each of the three. The patient properly comes first, for neither trade nor profession has any *raison d'être* other than his interest. Advantages to the patient are perhaps, first palatability, though this need not be the case if we prescribe with care and knowledge. Then comes uniformity of strength and dose, especially when alkaloids are used. And this suggests a very real disadvantage. We shall be disappointed if we assume that active principles after isolation are the exact therapeutic equivalents of the crude drug from which they come. Some of these are only by-products, formed during the curing of the crude drug, or during process of manufacture. This is the case, for instance, with that most valuable drug, cascara sagrada bark. And while doubtless many of the decoctions, infusions, tinctures, and fluid extracts are very unpalatable and loaded with inert matters, still, in many cases nature's combinations are therapeutically far ahead of artificial ones, so that no combination, for instance, of the various constituents of opium, be it ever so carefully made, can equal opium itself in properly selected cases. This is undoubtedly true also of digitalis, of cinchona if used as a tonic, of coca leaves, if contrasted with the action of their active principles. And we doubt whether it is quite true, as has been said, that pelletierine fully represents pomegranate root bark (my experience contradicts it), or a mixture of strychnine and brucine, the tincture of nux, or emetine ipecac, or sparteine scoparius. Many active principles are undoubtedly preferable to their sources for certain clearly defined purposes, as pilocarpine for jaborandi, in the practice of the aurist, or eserine for the extract of the bean, but it seems to be the case that the crude drug and the active principle from it, often vary as widely in therapeutic value as do entirely different drugs.

2nd. As to the trade. I have already indicated my belief that physicians should favor the retail man rather than the manufacturer, as we are in the last resort more dependent upon the former than the latter. It may seem irrelevant and gratuitous, but I shall, nevertheless, venture the remark, that the physician cannot be too careful of the exact nature of his relation with the dealer in drugs, that he must preserve an attitude of absolute independence, giving no favors and receiving none beyond those that private friendship might suggest, and probably better not even these, that he may

Essence Pepsin 'Evans'

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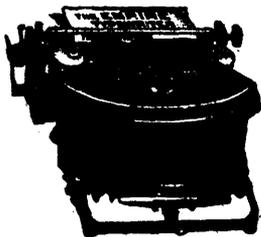
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avoid even the appearance of evil. This reminds us of the habit that some houses have of sending large samples of their wares to hospitals, where they may or may not be used by the house surgeons or others, after which they are advertised as "supplied to such and such an hospital," stealing the credit of the institution to bolster up their own. Public disavowal by the hospitals of such advertisements would probably please the drug dealer very well, as a means of publicity, so that the best remedy would appear to be simply resolute refusal to be placed under a compliment by them.

Finally, as to our third fixed point—the profession. There can be only one opinion as to the using of compounds sold without a printed formula—they are utterly *taboo*—and for the very good reason that the man, I had almost said physician, prescribing them, is making himself the agent of a layman, allowing the layman to use him for selfish ends and not for the good of the patient. Even where the formula is printed, or purports to be, one is often filled with uneasy insecurity, for there is no independent guarantee, nothing but the agent's word for it, that the compound is as represented. I need only refer to the rival preparations of aromatic cascara extract as a case in point, where rival agents add to one's discomfort by innuendoes that "so-and-so's cascara tastes very nice, but has enough croton oil to make it effective." But worse than any of these evils is the effect on the physician himself, who dares to prescribe by trade names the pills, triturates, etc., labelled by the name of the disease which the maker says they will cure, such as "cystitis tablet," "gonorrhoea tablet," "dyspepsia No. —," "Cold No. 3." Such practice will surely destroy any therapeutic knowledge the prescriber may already have, will paralyze all therapeutic progress on the part either of the prescriber or of the profession, and will transfer the interest of the patient and the independence of the profession, wholly to the vendor of drugs. It is idle to say that the printing of the formula removes the evil—it may do so in part, it cannot do so entirely. No physician can carry in his head the whole formula; he may remember some of the more active ingredients, but the net result is the obfuscation of any established principles in the mind of the prescriber (and these principles are sufficiently inexact and ill-established as yet in all conscience). The physician who prescribes thus makes himself the agent of the manufacturer, sells his professional birthright for less than a mess of pottage, allows his professional duties to degenerate into the mere making of a diagnosis for a manufacturer, who, if he could be on the ground which the prescriber occupies, would certainly make his own diagnosis and give his own prescription, and possibly, do it quite as well as a physician of that stamp can do it. In short, the habitual prescriber of preparations of this kind becomes a therapeutic imbecile, a child playing with poisons.

In conclusion, let me briefly mention some rules by which, in my opinion, we should be governed in the use of remedies not mentioned in the Pharmacopoeia:

First—I repeat, perhaps needlessly, the rule that no nostrum of unpublished formula may ever be ordered, or even permitted.

Second—That the mere fact that the formula is published does not make the use of the preparation a safe or desirable thing, from the point of view either of the patient or of the physician.

Third—That when the drug is a single chemical substance of definite atomic formula, such as trional, sulphonal, phenacetine, etc., one uses it with a clear conscience, in spite of the knowledge that the original copyright or patent is temporarily bringing in fabulous sums to its owner, even while one rages at the state of things that allows one New York house to filch from the public such enormous and extortionate profits as are represented by the difference in cost of phenacetine in Canada and on the other side of the line.

Fourth—That in the matter of patent foods and surgical appliances, the ordinary principles of commercial rivalry, cost of the article, suitability for the particular case, and actual merit, may be allowed to operate and control our use of it. For these articles are always products of nature, the supply of which is practically unlimited, and a complete and genuine monopoly in which can never be established by any manufacturer. The most he can do is to secure a copyright, and we can always use an alternative preparation, knowing it to be as generally useful and efficient, in spite of his energetic protests to the contrary. The main thing is to preserve our attitude of absolute judicial indifference to every consideration, except the interests of our patients and the bare unexaggerated properties and value of the food or drink or dressing which we order.

And, finally, we shall not go far astray if we remember that no matter what order we issue, we are to consider first and foremost the interest of the patient, then our own technical and professional (not financial) advantage, and last of all, the rights of our purveyors and assistants, the chemists, wholesale and retail, to whom we owe very much, but who must not be allowed at any point to overstep the bounds of their own province in the art and science to which the lives of all of us are devoted.

THE CONNECTION BETWEEN PHARMACY AND SCIENCE.*

BY PROFESSOR E. SCHAER.

The traditions of the Apotheker-Verein require that suitable provision should be made at the annual meetings for considering scientific subjects connected with the practice of pharmacy, and having been honored with a request to deliver an address on this occasion, I wish, as representative of pharmacy in the University of Strasburg, to ask your attention to a matter of such vital importance to the craft that I do not anticipate any difference of opinion or need for justification.

* Abstract of an address delivered at the Twenty-sixth Annual Meeting of the German 'Apotheker-Verein' in Strasburg, on August 24, 1897.

The question whether pharmacy—in the past, present, and future—should be regarded as having essentially the mere honorable character of a purely mercantile business, or to some extent, if not exclusively, as a scientific occupation, has within recent years become sufficiently actual and important to merit consideration, and it is my intention to discuss that question—not in regard to certain superficial views that may be characterized as mere forms of speech—but from a point of view going more to the root of the matter, so that the conclusions arrived at may be useful not only to members of our craft, but also to those outside of it.

This question as to the character and position of pharmacy has in past times been a frequent subject of discussion, and competent authorities at home and abroad have always supported the view that pharmacy should rank as a scientific occupation, the rational exercise of which for the public benefit is inconceivable, unless those engaged in the practice of the art possess a manifold acquaintance with natural science. In that sense pharmacy is consequently entitled to be regarded as being a branch of applied science.

These facts are so thoroughly recognized that the statement of them may appear commonplace and almost superfluous. But there is at least a logical consequence deducible from them; they at least justify the expectation that the pharmacist, after completing his education and entering upon the practice of his art with the consciousness that it has a scientific basis, will zealously apply himself, according to his means and abilities, to the advancement of those branches of science upon which the practice of his calling depends—in short, that he should, according to his opportunity and special inclinations, do some work either in pharmacognosy or pharmaceutical chemistry.

A mere cursory retrospect of practical and scientific pharmacy during the last hundred years suffices to recall to mind a numerous and respectable array of practical apothecaries,** who, in the midst of their business occupations—not wanting in responsibility—were also actively engaged in advancing those specially pharmaceutical branches of science above referred to. In confirmation of this it is sufficient to mention the names of Spielmann, Valentin, Rose, Buchholz, Dobereiner, Geiger, Trommsdorff, Buchner, Duflos, Mohr, Hager, Lemery, Baume, Soubeiran, Delondre, Robiquet, Morin, Baup, and many others of no less repute in all countries.

But such a review, interesting as it would be in many respects, would scarcely bring us nearer to a perception of the relation between pharmacy and the pure sciences, which appears to me to be the critical point indicative of the scientific character of the pharmaceutical business. It is of much greater importance in that respect to select and consider those individuals who, having originally taken up the calling of pharmacy, either from in-

clination or under the influence of external conditions, and after continuing for some time in that occupation, then became inspired with a love of pure science, and followed the impulse by devoting themselves to chemistry, botany, or biology as investigators and academic teachers. In discussing and enumerating men of that category, it may perhaps be said that they were induced by natural predisposition to take up the pursuit of science, and would probably have done so without passing through a preliminary period of occupation in practical pharmacy. But in opposition to that view of the matter, which, in some instances no one will attempt to dispute, biographical documents and historical records furnish abundant evidence that, in the case of many eminent men of science, the first insight into and absorption by natural science sprung from their practical occupation in medicine or in pharmacy. One of the most striking instances in support of that fact is afforded by Dr. Robert Mayer, of Heilbronn, to whom we are indebted for the discovery of the conservation of energy. He was the son of an apothecary, and was at an early age intended for the medical profession, and many of his experiments were carried out in his father's establishment, with the aid of his elder brother, who had succeeded to the business. In truth, the inducement is not slight to dwell for some moments in contemplation of the long series of famous scientific investigators who have sprung from the occupation of pharmacy—among chemists from Humphry Davy, Heinrich Rose, Poggendorff, Liebig, Rammelsberg, Hlasiwetz, Lowig, Proust, down to Stadelcr, Otto, Stockhardt, Erdmann, Wurtz, Selmi, Wagner, and the lately deceased Fresenius—among botanists Martinus, Goppert, Kutzing, down to Ferd. von Muller, Trecul, and Berg—and among physiologists, Schwann, Wallace and Baumann.

Convincing as this enumeration of distinguished chemists and botanists may be for the purpose of the present argument as to the connection and reciprocity of pure science and pharmacy, it has less value and moral weight than a conscientious and truthful survey of the pharmacists who have carried out scientific work, not after leaving their occupation, but while practically engaged as apothecaries, and have pursued one or other of the sciences connected with their calling, with the result of advancing them by their own investigation and observation. It is to this point that attention must be directed as constituting a "criterium magnum" when the question is discussed which is of such vital importance in regard to the honorable future of the apothecary's calling—how far pharmacy as an art, useful to the public, is to be regarded as essentially a branch of applied science? In the discussion of that question the circumstance that individual apothecaries may, like persons in other positions in life, have sometimes acquired exceptional distinction in some branch of science, is not the only point to be considered. More decisive evidence of the scientific character of pharmacy, as an art, is to be found in the fact that, ever since apothecaries have been in exist-

** Notwithstanding the corruption of the true meaning of the word "apothecary" by long-continued practice—almost peculiar to this country—which has also been productive of other mischievous consequences, it has been adopted in the translation of this address because it is the proper English equivalent of the German term "apotheker," employed by the author, and most correctly conveys his meaning.—[Ed., Ph. J.]

ence, a considerable number of them have associated with the practical conduct of their business the pursuit of such branches of science as are indispensable aids to practical pharmacy, and have helped to extend their scope.

I must here confess that the study of this subject was first suggested to me by the circumstance that some years ago the well-known *Annalen der Chemie und Pharmacie*—a journal originally pharmaceutical, both in contents and name, and so edited by Liebig—had its title abbreviated by striking out the word "Pharmacie." For that simplification there may have been plausible reasons, the discussion of which might be misinterpreted, but it had the effect of suggesting some historical enquiry that furnished material which appeared appropriate for the present address, especially at a time when various kinds of reform are recognized to be as difficult as they are necessary, and when there is but little disposition to accede to pharmacy or its followers the most modest position in the history of culture and science.

In proceeding to make a selection from among the apothecaries who have advanced chemistry or botany, it will be necessary to confine our consideration to a few prominent instances, more especially since those who come within this category are very much more numerous than might be expected. For the purpose now in view it will not be inappropriate to commence the enquiry with the sixteenth century, when apothecaries—as the term is now understood—were already in existence.

At that period a foremost position was occupied by the Antwerp apothecary, Peter Coudenberg, a contemporary, friend, and correspondent of the celebrated botanist Lobelius, of Dodonaeus, Clusius, and of Konrad Gesner, described by Coudenberg as "the very learned apothecary at the sign of the old bell in Antwerp, an industrious and excellent investigator of all medicinal drugs, who, by his zeal and activity, had filled his garden with the most diverse and rare plants, and continued to extend and enrich it." In speaking of this man, not only as a pharmacist, distinguished by the extent of his work in connection with pharmaceutical subjects and the number of his publications, but also as a botanist, his long-continued exertions in collecting and acclimatizing exotic plants must be considered as unique in the history of botany, and as having been the means of providing material for the investigation of foreign plants which were then difficult to obtain, owing to the scarcity of systematic botanic gardens. Coudenberg established his garden in 1548, only a few years after the foundation of the first University Gardens at Padua, Bologna and Pisa. In the course of the next ten years he had collected nearly six hundred rare exotic plants, and had acquired a European celebrity before the famous gardens of Leyden, Paris, and England were established. With great sacrifice of time and trouble, as well as lavish expenditure, Coudenberg continued to carry out careful observations of exotic plants, and to correspond with many of the most eminent botanists of his time. Among the number was

Konrad Gesner, of Zurich, who published in the "Horti Germaniae," 1560-61, a list of the plants cultivated by Coudenberg, and mentioned also some other less extensive apothecaries' gardens at Leipzig, Nuremberg, Torgau, etc. From that catalogue, dating probably from 1555, as well as from the descriptions of Dodonaeus, Lobelius, and Coudenberg's Belgian biographers, it appears that a very large number of interesting exotics representing the sources of various medicinal drugs, had been for the first time cultivated in Europe. Among the more important were *Agave Americana*, *Artemisia pontica*, *Cassia senna*, *Celosia cristata*, *Cistus creticus*, *Dracaena draco*, *Rhamnus zizyphus*, *Scorzonera hispanica*, *Solanum melongena*. Numerous other plants that were only rarely to be found north of the Alps in the sixteenth century, were grown in the Antwerp pharmacist's garden, for instance, *Achillea moschata*, *Cassia fistula*, *Cicer arietinum*, *Cynara scolymus*, *Cupressus sempervirens*, *Ceratonia siliqua*, *Delphinium staphisagria*, *Glycyrrhiza echinata*, *Gossypium herbaceum*, *Pistacia vera*, *Punica granatum*, *Solanum lycopersicum*, *Olea europaea*, *Urginea scilla*. The assistance rendered by Coudenberg in advancing systematic botany, both directly and indirectly, cannot well be estimated at the present time, but it is unquestionable that his scientific work extended far beyond the limits of his practical occupation as an apothecary. A century later, another Belgian pharmacist, Joh. Hermann, of Brussels, had a botanical garden of almost equal importance, in which more than 1,850 indigenous and exotic plants were grown.

At the same period Renward Cysat, of Lucerne, a celebrated pharmacist as well as statesman, was distinguished not only by the zealous prosecution of his special calling, but also by his cultivation of botanical science in the same manner as Coudenberg. After serving an apprenticeship in his native town and passing some time in the establishment of Beccaria, in Milan, Cysat took a business in Lucerne, and some fifteen years later was elected to a position of considerable political importance. Notwithstanding the demands thus made upon his time, Cysat continued to devote his attention to scientific pursuits, and especially to botany, carrying on a copious correspondence in relation to the introduction and study of foreign plants. He was the first to succeed in cultivating *Prunus laurocerasus* north of the Alps. His letters to Felix Platter abound in suggestions as to the cultivation of the foreign plants which he had been the means of importing into Europe, such as *Opuntia*, *Laurus nobilis*, *Zizyphus*, *Citrus*, *Arbutus*, *Cupressus*, *Capparis*, *Jasminum*, etc. So early as 1585 Cysat sent to Platter in Basle a specimen of *Opuntia*, which he had procured through a relative, from Palestine. About the same time he recorded successful results in the cultivation of *Nicotiana tabacum*, a plant which he had known for several years, and employed for medicinal purposes. Before that time *N. Rustica* had been cultivated in Berne by Aretius about 1570, and shortly after its first importation into Italy. Among the

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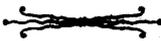
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medicinal plants first cultivated in Central Europe was *Ricinus*, fully described by Cysat in 1603, under the Arabic name "Cherva," and among ornamental plants a species of *Passiflora* may be mentioned, which was imported from Peru in 1608, and was one of the first kinds grown in Europe. So much interest was excited by the cultivation of this plant that on the occasion of a visit to Rome, Cysat was desired to show it to the Pope, Paul the Fifth. The papers left by this remarkable man furnish evidence that he was not only interested in the collection and study of foreign plants, but that he was equally active in extending the knowledge of indigenous plants. His manuscripts contain many excellent drawings and descriptions of newly-discovered Swiss plants; as, for instance, rare kinds of *Ophrys*, and of the other orchids occurring in the neighborhood of the Lake of Lucerne. Cysat died in 1614, and he may be justly regarded as one of the most accomplished apothecaries of his time.

Passing to the seventeenth century, we find among the numerous apothecaries who were also cultivators of chemistry, two whose labors in advancing that science can scarcely be too highly estimated—Joh. Georg Gmelin and Caspar Neumann. Of the descendants of the former, Kopp remarks in his "History of Chemistry" that few families have shown, through successive generations, more marked taste and capacity for the pursuit of natural science, and especially chemistry. Though a simple apothecary at Tübingen, J. G. Gmelin was an able chemist, and had been trained in Sweden under a predecessor of Berzelius. According to the testimony of his contemporaries, he carried out a number of important investigations, but did not publish anything beyond a work on the preparation of mercurial acetate, under the peculiar name of "*Sperma Mercurii*." In training his three sons for his own calling, he inspired them with an interest in natural science, and by his own example gave them a taste for chemistry which subsequently led them to do good work, and was transferred to their successors. The eldest son was a physician at Tübingen; the second was for some time connected with the Academy of St. Petersburg, and after travelling in Asiatic Russia, took the position of Professor of Botany and Chemistry at the University of Tübingen, in which post he was afterwards succeeded by his younger brother. The sons and nephews of these three brothers followed in the same direction. One of them became a pupil of Berzelius and a teacher of chemistry and pharmacy, as well as author of an "Introduction to Chemistry," which was highly esteemed at the time. Another son was the famous professor of chemistry at Göttingen, and his son, Leopold Gmelin, born in 1788, who became professor of chemistry and medicine at Heidelberg, was the author of the well-known "Treatise on Chemistry," which has been in use down to a recent period.

(To be continued).

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SOME INSTANCES OF THE PRACTICAL VALUE OF THE MICROSCOPE IN PHARMACY.*

BY A. P. LOHNESS, PH. D., BROOKLYN COLLEGE OF PHARMACY.

This subject having been suggested by the Committee on Pharmacy and Queries, of the New York State Pharmaceutical Association, it would appear that there still remain a few who doubt the utility of the microscope in pharmacy. It is the purpose of this paper, therefore, to convince that few that the microscope is not a mere plaything, and its manipulation a mere pastime; and also that the time has arrived when no pharmacy is complete without a fairly good instrument as conveniently at hand as the various other instruments used in testing and standardizing the articles which the pharmacist is called upon to handle.

A MICROSCOPE A RARITY IN PHARMACIES.

The man who would attempt to conduct a pharmacy without his ready tests and the instruments with which to apply them, is unworthy the title of pharmacist. He would not be without means to accurately weigh and measure each article called for in the physician's prescription, why should he be without means to test the quality of the component parts thereof? In nearly every pharmacy there will be found balances, graduates, test-tubes, burettes, thermometers, hydrometers, etc., etc.; but the microscope! well, it is rarely found.

Can it be possible that there are individuals practicing pharmacy to-day, who do not know that the U.S. Pharmacopoeia includes drugs that cannot be positively identified or accurately tested without the use of a microscope? This is true, and under the several heads will be found accurate descriptions of the substances as they appear under magnification.

ITS USE IN THE IDENTIFICATION OF STARCHES.

The value of the microscope in the identification of starch (U.S.P.), will be considered in detail but in other instances in a more general way.

Starch is defined by the Pharmacopoeia as "*The fecula of the seed of Zea Mays Linne (Nat. Ord. Gramineae).*"

This definition would suffice if each pharmacist prepared all the starch he used in the course of his business. He would but have to obtain the seed of *Zea Mays* and proceed to manufacture the article, knowing when completed that the product was that called for by the U.S.P.

The compilers of the official guide, however, realizing the impracticability of such a feat, give him such an accurate description of the substance that he may readily satisfy himself that that which is purchased is precisely as designated. It goes on to describe starch, therefore, as occurring in "irregular, angular masses, which are easily reduced to a finer powder; white, inodorous and tasteless; insoluble in ether, alcohol, or cold water."

*Read at the Manhattan Beach meeting of the N. Y. S. P. A., July 5th.

So far, the description will apply equally well to starches from other sources; in fact, the wording, with the exception of the words, "a fine," is identically the same as the corresponding portion in the Pharmacopoeia of 1880, when wheat starch was the kind recognized; by itself, therefore, it is valueless as a test for the present official article, and only becomes useful when connected with the following microscopic description: "Under the microscope, appearing as granules, nearly uniform in size, more or less angular in outline, with indistinct striae, and with a distinct hilum near the centre."

Here the Pharmacopoeia very properly recognizes the value of the microscope, as the characteristic features of the substance described are distinctly brought out by magnification.

DIFFERENCES DISTINGUISHED BY THE MICROSCOPE.

The granules of corn starch are seen to be polyhedral, fairly uniform in size, with indistinct layers and a well-defined central hilum. Rice starch and oat starch present similar characters, both being polyhedral and quite uniform in size. The hilum of rice starch, however, is much smaller, and that of oat starch is scarcely discernible, as is also the case with its layers; the grains of oat starch are, besides, frequently aggregated into subspherical or ovoid masses.

The most prominent distinction between these three starches lies in the relative size of their granules; this is a point omitted in the Pharmacopoeia of 1890. The individual grains of corn starch vary from 13 to 22 Mm. in diameter, those from rice (the larger granules), average about 6.5 Mm., and oat starch about 4.5 Mm. These three starches being somewhat similar in outline, and their markings less characteristic than their dimensions, it is obvious that the Pharmacopoeia of 1900 should note the size of the granules of the kind official.

There is no possibility of mistaking the several other starches commonly found in the markets, such as wheat starch (official in 1880), Maranta starch, potato starch, etc., for the official variety, as these all present characteristic, well-defined markings, and more or less rounded margins; they are further distinguished by being very variable in size.

THE EXAMINATION OF POWDERED DRUGS.

The Pharmacopoeia gives, in addition to the definition and description, several tests, which read as follows:

"Triturated with cold water, it gives neither an acid nor an alkaline reaction with litmus paper."

"When boiled with water it yields a white jelly, having a bluish tinge, which, when cool, acquires a blue color on the addition of iodine T.S."

"When completely incinerated, starch should leave not more than 1 per cent. of ash."

These tests are of value only in the identification of starch as such; any starch may have a neutral reaction; all starches form a nearly transparent jelly upon being boiled in water, and give the characteristic reaction of turning blue when brought in

contact with iodine. The incineration test is of no more value than the others, as the amounts of ash left from the several starches vary so little as to exhibit nothing characteristic of the kind.

Kamala, lupulin, and lycopodium are other official drugs which occur in a pulverulent condition naturally, and which cannot be satisfactorily examined with the unaided vision.

Normally, lycopodium appears as an extremely fine powder, of a yellowish color, without odor or taste. Kamala is a somewhat coarser powder with a reddish color, odorless, but having a slight balsamic taste. Lupulin is still coarser, more granular, has a peculiar odor and a bitterish, aromatic taste. Either drug might carry a considerable quantity of impurities without obliterating the aforesaid comparatively feeble characters.

The Pharmacopoeia describes lupulin: "As seen under the microscope, are sub-globular, or rather hood-shaped, and reticulate." The description of lycopodium is: "Under the microscope the spores are seen to be sphaero-tetrahedral, the surfaces marked with reticulated ridges, and the edges beset with short projections." That of kamala: "Under the microscope it is seen to consist of stellately-arranged, colorless hairs, mixed with depressed globular glands containing numerous red, club-shaped vesicles."

The Pharmacopoeia gives several other tests for the purity of these substances, none of which are so valuable, reliable, or readily applied, as the microscope.

It is but necessary to place a small portion of the drug under examination under the microscope, when its condition—pure or impure—is immediately ascertained. The individual particles of lycopodium, also those of lupulin, as well as those of starch, are alike, therefore, examined with the greatest of ease. Any body not corresponding to the Pharmacopoeial description of the several drugs, may be classed as an impurity.

Perhaps sand and other earthy matters form the commonest impurities found in these drugs, but starch, turmeric and pollen from various plants have been found in lycopodium, and the Pharmacopoeia warns the pharmacist to look out for them.

Kamala is not quite so easily examined, at least by the beginner, because of the variety of shapes and sizes, and the fragmentary condition of the particles of which it is composed. A little practice, however, will enable one to ascertain its purity, or detect sophistication as readily as in the other instances.

This leads to the study of the more complicated substances which the pharmacist occasionally purchases in a powdered condition, such as barks, roots, leaves, etc., etc.

Here it is necessary to become familiar with the plant—elements found in a powder of known purity, in order to be able to compare them with those found in the specimen under examination.

A lens, which is a simple microscope, is required in the manufacture of three official preparations, viz.: Hydrargyrum cum creta, massa

hydrargyri and unguentum hydrargyri. In the first preparation, directions are given to shake until the globules of mercury are invisible when magnified at least four diameters. In the second and third, the substances are directed to be triturated until they are no longer visible when magnified ten diameters.

The foregoing instances were selected for two reasons: First, the U.S.P. directs the use of the microscope in the identification of each drug; second, the readiness with which one, though we have but a mere acquaintance with the instrument, can appreciate the distinguishing features.

The value of the microscope does not terminate here, because the Pharmacopoeia fails to recognize the instrument in the standardization of other drugs; the more familiar one becomes with its manipulation, the greater does its field of usefulness grow. This is especially true at the present time, since the custom of purchasing drugs in a pulverulent condition is rapidly growing. This custom, in the absence of the microscope and the knowledge of its application, should be discouraged.

In consequence of the ease with which the adulteration of drugs in the powdered condition can be effected, colleges of pharmacy are placing the utmost importance upon the fitting of their students to become familiar with the practical use of the microscope.

A METRIC SYSTEM REPORT.*

Statistics Based Upon 233,000 Prescriptions.

A measurement of gravitative force and the determination of the magnitude of material substances constitute a major portion of the manual training of the apprentice, and continues prominent in the practice of the retail druggists' profession. The theory, as well as the practice of pharmacy, is largely dependent upon deductions and results obtained by the act of weighing and measuring. It is not surprising, in view of these facts, to find the representative body of druggists of this country, the American Pharmaceutical Association, practically considering the various systems of weights and measures, more than forty years ago. The Committee on Weights and Measures, reporting in 1857, (see page 36 of proceedings for that year) proposed a decimal system for the consideration of the association, as a substitute "for the various systems known as apothecaries', avoirdupois, etc." In way of an apology for so radical a step the committee says: "The labor saved in all the various operations in the laboratory will be almost incalculable, and the immense saving in compensations of all kinds in commercial transactions cannot be counted." The report closes with the prophetic assertion that "the reform will not be the work of to-day, perchance not of our day, but it will be made in due time, for it will be a demand of the age, and generations to come will bless the labors of such as shall be instrumental in conferring so great a boon upon their youth."

This committee outlined the metric system (which it designated as the French system), but objected to the Greek words and Latin syllables. The decimal system which the committee proposed was the one which had just been devised by M. Lefferts, chairman of the committee of the New York Chamber of Commerce, and approved by the American Geographical and Statistical Society. It retained the old terms, thus making ten grains equal to one scruple, etc. The association did not see its way clear to endorse the system, but continued the committee after increasing its membership from three to five.

In 1858 we find the committee, through a new member, objecting to the hybrid system and favoring the metric system, with the suggestion that only four of the eight weights be used (i.e., centigramme, gramme, hectogramme, myriagramme). We are practically following out this recommendation in our practice to-day. The spirit of the times is indicated by the volume of proceedings of the 1859 meeting of the A. Ph. A., which devotes 101 pages to the report of the Committee on Weights and Measures. The subject has received attention at almost every meeting of our association since that time.

The adoption of the metric system by the United States Pharmacopoeial Convention of 1890, and its progress in American laboratory and analytical work, is familiar to those who keep abreast of the pharmaceutical times.

The extent of use of the metric system in prescription writing is more difficult to determine, and does not necessarily keep pace with its progress at the hands of pharmacists. The following statistics are not only interesting, but should, I believe, be permanently recorded as a part of the history made by the metric system, as it gradually, but positively, displaces the older and more cumbersome so-called systems of weights and measures.

Reports were made by 233 pharmacists, representing 191 cities and towns scattered through thirty States and Territories. In ratio of metric prescriptions, Gypsum City, Kan., leads the list, with a percentage of 100; Wells, Minn., comes next, with 97.6, while Kerwin, Kan., and Hamilton, O., follow with 95.6 and 94.7 respectively.

The average of metric prescriptions out of the 233,000 is 6.27 per cent.

The above statistics have been gathered during the past twelve months. Many of the druggists responding to my request for information, volunteered comments on the use of the metric system. These lead me to believe that the pharmacists are ready to fill metric prescriptions in many places where the physicians fail to write them in that system. By extended correspondence and conversation with members of the medical profession, I find quite a general feeling that it is not safe to use the metric system on account of the ignorance regarding it on the part of the pharmacists. This being the case, each druggist should strive to let the doctors in his neighborhood know that he is ready and prepared to fill all metric prescriptions with accuracy and dispatch.

* Read at the Lake Minnetonka meeting of the A. Ph. A. August, 1897.

ADVERTISING.

A clothing merchant in a far Western city says he would like to know a rule that is short and that can be easily remembered, that he can keep constantly before him as a guide in advertising his business.

Advertising is such a complex subject that no one rule will cover all sides of it. If I were giving six general rules to any storekeeper I would say about this:

1. Advertise truthfully.
2. Advertise regularly.
3. Advertise seasonable goods.
4. Advertise reliable goods.
5. Advertise reasonable prices.
6. Stick to these rules all the time.

To the average merchant, I am sorry to say that the last rule is the most important of them all. His chief difficulty is that no matter what rules he may formulate for himself, or how good these rules are, he does not stick to them all the time. The quality that makes the successful business man is the grit to map out a correct plan, and then stick to it through thick and thin, until success has been won.

Our merchant begins by advertising reliable goods, and sticks to it until some other merchant throws out a lot of trash at a lower price. Then our merchant thinks he must follow suit or be left behind.

I don't believe it ever pays to advertise unreliable goods.

I remember reading some time ago an article written by Mr. Manly Gillam, in which he said that "a woman very seldom remembers the price that she paid for an article, but she always remembers where she got it." I believe this is as true as true can be. When a woman buys something at your store, which is not what it ought to be, and finds out that it is not what it ought to be, she is going to blame you for it. She will forget all about the fact that she bought it at half the regular price. She does not take into consideration that she got all she paid for, but she only remembers that she got something that was not satisfactory.—*Printer's Ink.*

Doctor—"To the best of my judgment, you are suffering from gastritis."

Patient—"I knew it. I got it in the cellar fooling with the gas meter."—*Texas Sifter.*

Kind Party—"If I give you this nickel what will you do with it?"

Tatters (sarcastically)—"I'll be honest wid you, boss. I'll spend it in riotous living."

In a department store—"I want something nice in oil for a dining-room." "Yes, madam. A landscape or a box of sardines?"—*Life.*

Club Cologne Glycerine Toilet Soap



**JUBILEE
VIOLET
PERFUME**
FOR THE HANDKER-
CHIEF. MADE BY
**JOHN TAYLOR
& COMPANY.**
TORONTO ONT.

Manufactured by a new process, under the supervision of the Inland Revenue Department of Canada.

GUARANTEED PURE
AND FREE FROM
ALKALI.

HIGHLY RECOM-
MENDED FOR THE
COMPLEXION, AND
PERFUMED WITH
OTTO OF ROSES....

Manufactured only by **JOHN TAYLOR & CO., Toronto**

Proprietors Morse Soap Works.

THE LYMAN BROS. & CO. ANNUAL BICYCLE RACES.

The third and most successful of these events took place on the Rosedale grounds, October 9th. The occasion brought out a large number of the friends of the firm, and all present spent an enjoyable afternoon. The weather clerk, who has distributed his favors so bountifully this Jubilee year, was as generous to Lyman Bros as to royalty itself, and old Sol beamed with never a frown. The different items of the programme were run off without a hitch or mishap. All the races were keenly contested, and the winners warmly applauded.

The presence of a large number of ladies, who graced the balcony of the club-house, added interest to the meet.

In the half-mile race (employees only) Wm. Sheriff took first, George Evans second, and R. J. Lennox third.

In the one mile, open (employees only) Wm. Sheriff crossed the line first, with Geo. Evans pushing him hard as second, and L. Rook third.

In the three-mile handicap (registered druggists or assistants only) the O.C.P. carried off the honors, taking two of the three prizes offered.

There were eighteen entries and sixteen starters in this race. W. Miller, Ingersoll (O.C.P.), crossed first; H. S. Young, Gladstone pharmacy, second, and H. E. Hebblewhite, Collingwood (O.C.P.), third.

The ten-mile employees' handicap brought out a field of twenty-one contestants, who put up an exciting and interesting race, with the following results:

W. Jones, first; L. Rook, second; and R. J. Lennox, third. W. Sheriff first time prize, and George Evans second, while the booby fell to S. Francis. This completed the afternoon's sport, and the party assembled in the Club-house for distribution of the prizes. Mr. C. McD. Hay, manager, presided. Mr. H. H. Lyman, of Montreal, president, opened with a neat and timely speech, after which the prizes were distributed by Mr. Hay, assisted by Mr. J. Watt, secretary-treasurer of the company.

Mr. E. Yeigh, of the *Globe*, and Rev. Morgan Wood, of Bond street Congregational church, made appropriate speeches. Cheers for the Lyman Bros. Co. brought to a close a pleasant afternoon's outing.

ODDITIES.

- Padaygoric for one bebay, 5 cts.
- Antiverbena powders, 5 cts.
- Senseless powders for 5c.
- 5 cents worth of suffering.
- Balsam come peppermint.
- Bot. syrup of proselytes.
- 5c worth concertina powder.

Doublets.—Young Father—"Is it a boy or a girl?"

Doctor (a cyclist)—"No, it's a tandem."

STRAIGHT BUSINESS TALK



We are introducing Abbey's Effervescent Salt, a standard English preparation, into Canada.

We sell to the drug trade only.

We intend to spend about thirty thousand dollars telling the public how good this preparation is and how much good it will do them to take it.

We are spending this money where experience has taught us it will do the most good.

A poor thing cannot be sold if you tell the truth about it.

Every advertisement we print is straightforward truth—based on facts.

That is what makes it so convincing.

It is convincing, truthful advertising that is creating a demand for Abbey's Effervescent Salt.

The druggist who cannot supply what there is a demand for in his line of business, has no business to be in business.

Your customers will be asking for Abbey's Effervescent Salt.

Can you supply them?

Most druggists can supply it—some are not yet alive to the business this opens up for them.

Will you be with the successful majority or the risky minority?

Your wholesaler will supply you.

**THE
Abbey Effervescent Salt Co.,
LIMITED.**

MONTREAL, - CANADA.



CHAS. FOWLER.



G. C. HAWKINS.

We regret to hear that Mr. Chas. Fowler, Canadian manager for Messrs. Scott & Bowne, has taken his departure from our midst. He has had charge of the firm's interests here since they located at 55 Front street west. His presence was so urgently required in the home office at New York that the firm were obliged to recall him. Although but one year a resident of our city, Mr. Fowler has made many friends among the druggists and business men with whom he has come in contact. The P.A.T.A. of Canada will lose an active and efficient member. From the first he has been impressed with the necessity of some effective plan being adopted whereby the trade could be restored to its previously satisfactory basis. Thoroughly alive to the fact that what tends to the prosperity of the retail trade must eventually react on the manufacturer, he has labored diligently in the interests of both. On returning to his previous sphere of labor in the head office, Mr. Fowler carries with him the pleasing consciousness that under his care the business of the firm in Canada shows satisfactory increase in volume, the last two months being phenomenally good.

Like all sensible people who have an opportunity of becoming acquainted with Canada and Canadians, Mr. Fowler has thoroughly enjoyed his short period of residence amongst us, and leaves with the most pleasant recollections and bright anticipations for the future of the Dominion.

With Toronto he is particularly well pleased, and considers it one of the most desirable residential cities on the continent. An incident worthy of note in connection with Mr. Fowler is the fact that six generations of his progenitors had been members of the medical fraternity, and active practitioners in the healing art, so that his connection with one of the most popular pharmaceutical preparations of the day is a natural sequence. While with well-wishes and kind words we speed the going, we at the same time extend "the glad

hand" to the coming, and welcome Mr. G. C. Hawkins, who takes the vacated post, as Canadian manager. Like his predecessor, Mr. Hawkins is a native of New York city, and has spent his whole business career in the employ of the firm of whom he is now a trusted representative.

Although he comes to us a good Yankee, we are convinced that there is in him the material out of which to make a good Canadian, if only he will prolong his stay under proper influences sufficiently. If Messrs. Scott & Bowne are always as happy in the selection of representatives as they have been in the men sent to Canada, they need have no fear of anything but the most pleasant relationship existing between themselves and their patrons or that the justly high position that their emulsion holds in the esteem of the trade and public generally will be sacrificed.

PRELIMINARY EXAMINATIONS.

The Preliminary Board of Examiners of the Pharmaceutical Association held their quarterly examinations for students entering the study of pharmacy in Montreal and Quebec on Thursday, Oct. 7th, when thirty-four candidates presented themselves in Montreal, and one in Quebec. Of these the following passed, and are named in order of merit, namely: Alf. L. Jolicoeur, Norman Holland, Jules E. Cote, E. C. Laluminieu, Moses Albert, Louis Vazina, Geo. W. Johnson, Frank L. Browne, D. Tessier, and Wilfred Dubois. These are entitled to be registered as "certified apprentices." Two of the candidates failed on one subject, namely: Avila Savage, Latin; and Felix Paquet, arithmetic. The candidates were examined in English, French, Latin, arithmetic, history, geography. The examiners were Rev. L'Abbe Vergeau, Principal Jacques Cartier Normal School, and Prof. Isaac Gammell, of the High School,

Montreal, with Mr. J. E. Dube as supervisor of examinations for the city and district of Quebec. The next examination will be held on the first Thursday of January, 1898.

EXAMINATION PAPERS.

FRENCH FOR ENGLISH.

Traduisez en Anglais :—

Enfin, toutes les difficultés étant aplanies, toutes ses volontés exécutées, après avoir humilié l'empereur, donne la loi dans l'empire, avoir protégé sa religion luthérienne au milieu des catholiques, détrôné un roi, couronné un autre, se voyant la terreur de tous les princes, il se prépara à partir.

2. Translate into French :

The whole period of youth is one essentially of formation, edification, instruction. There is not an hour of it but is trembling with destinies, not a moment of which, once past, the appointed work can ever be done again.

ENGLISH GRAMMAR.

1. Express in simple prose:

And Ardennes waves above them her green leaves, Dewy with nature's tear-drops as they pass, Grieving, if aught inanimate ere grieves, Over the unreturning brave, alas !
E'er evening to be trodden like the grass.

2. Parse the italicized words in the above sentence.

3. Explain, with examples, the terms, conjunctive adverb, adjective, pronoun, prepositional phrase, auxiliary verb, nominative absolute.

4. What verbs are followed by a nominative case? What verbs govern two objectives?

5. State briefly the principal rules for the use of the period and of the comma.

HISTORY.

1. Note briefly the services rendered to Canada by Frontenac, by Carleton, and by Durham.

2. Who was the founder of each of the following royal dynasties : Carlovingians, Capetians, Bourbons, Plantagenets, Tudors?

3. Explain the terms Jacobins, Habeas Corpus, the Forty-five, Responsible Government.

4. Mention four great reforms that marked English history during the second quarter of the nineteenth century.

5. Name five battles fought between the English and French in America, and give the results of any one.

GEOGRAPHY.

1. Where are the following : Himalaya Mountains, Caspian Sea, the Sahara, Borneo, the Isthmus of Panama?

2. What are the capitals of the following countries : Turkey, Japan, Austria, Brazil, Russia, Manitoba?

3. What is the shape of the Continent of America? Name (1) the waters bounding it; (2) the great natural divisions; (3) the principal rivers; (4) the most important mountain ranges.

4. What European powers have possessions in Asia? What are the chief towns in these possessions?

ARITHMETIC.

1. A barn is 50 ft. long and 40 ft. wide. The sides are 20 ft. high, and the ends 30 ft. Find the cost of the lumber of the outer walls at \$18 per thousand ft.

2. A watch started at noon on Monday, is two minutes fast at 9.20 p.m. on Tuesday. What is the correct time when the watch shows 11.25 p.m. on Thursday?

3. Find the difference between the compound interest and the true discount on \$500, for three years at 4 per cent.

4. If six men dig a trench 600 ft. long, 5 ft. deep, and 3 feet wide, in 15 days of 8 hrs. each, how many hours a day must 16 men work to dig in 5 days a trench 1,250 ft. long, 4 ft. deep, and 2 ft. wide?

5. If the par value of £1 sterling be \$4.86 2-3, how much Canadian money must be remitted to London to discharge a debt of £12 13s. 4d., when sterling money is at a premium of ½ per cent?

LATIN.

Translate as literally as possible:

Helvetii petierunt uti sibi concilium totius Galliae in diem certam indicere, idque Caesaris voluntate facere liceret. Ea re permissa, diem concilio constituerunt, et jure jurando, ne quis enuntiaret, inter se sanxerunt.

1. Decline (1) *Caesaris* in the singular, (2) *voluntate* and *concilium* in the singular and the plural.

2. Decline together (1) *totius Galliae* in the singular, (2) *Ea re permissa* in both numbers.

3. Conjugate the present indicative, and the perfect subjunctive of *petierunt*.

4. Conjugate the future and the perfect indicative of *indicere*.

5. Conjugate the verb *liceret*.

PHARMACEUTICAL EXAMINATIONS.

The Board of Examiners of the Pharmaceutical Association of the Province of Quebec held their semi-annual examination for major and minor candidates in Laval University, Quebec, on the 11th, 12th, 13th, and 14th inst., when 19 candidates presented themselves for the major examination and 17 for the minor. Of these the following passed, and are named in order of merit, namely : Stanislas Gilbert, Emile Jolicoeur, J. C. A. Bates, Louis Rogalsky, Herbert H. Lyons, Francois C. de Lacheriotien, as certified clerk; Geo. H. Voss, V. F. Forgnés, E. J. Nadeau, J. Elzear Morin, G. P. Plamondon. The remainder of the candidates were referred back for further study. The candidates were subjected to a severe written and oral examination in chemistry and physics, materia medica and toxicology, botany, practical dispensing, reading of prescriptions, theoretical and practical pharmacy, and weights and measures. The examiners were R. W. Williams, Three Rivers; A. E. DuBerger, Waterloo; J. Emile Roy, Quebec; W. H. Chapman, J. R. Parkin, and Alfred J. Lawrence, Montreal; E. Muir, secretary of board.

MINOR EXAMINATION.

MATERIA MEDICA.

1. Give two official preparations of each of the following drugs, with their proportions, namely: Gentian, opium, lobelia, scammony, and squills. Name the plants from which they are obtained.
2. Give the official name and active ingredients of the following: Dover, laudanum, Gregory's mixture, spirits mindererios, Hoffman's anodyne, and dose of each.
3. What are meant by resins, oleo resins, balsams and gums? Give one example of each.
4. What is cochineal, menthol, eucalyptol? What is the difference between eucalyptol and oil of eucalyptus?
5. What is liq. glonoine? How is it prepared, and give its dose?
6. Name ten solid extracts of the B.P., with their doses and menstua.

CHEMISTRY.

1. What is the difference between calcium and lime? Give formula of each. What is the technical name of slacked lime, and how would you make it? Illustrate by one equation. Is there any official B.P. preparation of slacked lime? If so, what percentage? Is slacked lime more soluble in water than in any other substance? If not, what is it more soluble in? To what extent in both water and that liquid?
2. Give the formula and molecular weight of each of the following: (Do not omit the water of crystallization). Sulphate of zinc, acid boric, alcohol, bismuth subnitrate, acetate of sodum, cerium oxalate, bromide of potash, calcium chloride.
3. What do you understand by unit of heat and specific heat?
4. Explain the principle of the barometer.
5. What is pearlash, and how is it obtained? Give its formula, and name the official chemical product of it.
6. What is laughing gas, and whence is it obtained? Illustrate by an equation, and write out its formula.

PHARMACY.

1. What are baths? Describe the different kinds, and explain their uses.
2. What is meant by evaporation in vacuo? How would you proceed? What are the advantages of the operation?
3. What is meant by specific gravity? How would you determine the specific gravity of a piece of cetaceum, and of a crystal of alum?
4. Give the formula, the proportion of the active ingredient, and the mode of preparation of the following: Linimentum terebinthinae, lin. sinapis, lin. camphor, comp. lin. saponis.
5. Name two important official products obtained by destructive distillation of wood. State the use of them, their dose and official preparation.
6. How is gun cotton prepared, and what is its use in pharmacy? Give the formula of one of its most important preparations.

PRESCRIPTIONS AND TOXICOLOGY.

1. For convenience of weighing, you have a dilution of cocaine hydrochlor., with sugar of milk, 1 in 50. It is desired to make 12 powders, containing each 1-30 of a grain of cocaine. What quantity of the dilution will be needed?

2. How would you dispense the following prescription:

R Bismuth Trisnit.....ʒij.
Soda Bicarbʒi.
Acid Hydrocyanic Schuls.....mvj.
Tinct. Capsicimx.
Tinct. Opii.....ʒjss.
P. Tragacanth Co.....ʒij.
Aqua Menth. Pip., ad.....ʒvj m.

ʒss. t. i. d. P. C.

Write directions in English.

3. Give the dose of the following: Strychnine, aconitine, atropine, cyanide potassium, prussic acid and santonine, the last for a child of two years old.

4. Carry out adult dose in metric weight to make 50 pills, of the following:

Strychniae sulph.,
Ferri. redacti,
Ext. gentian.

5. Criticise and write out full directions in French and English:

Hydrarg. Perchlor.....grs. ʒ.
Cocaine Hydrochlor.....gr. iv.
Pot. Chlorgr. v.
Glycerine.....ʒj.
Aqua, ad.....ʒss.

Fiat garg, more dict.

6. Having received the following prescription, how would you prepare it?:

Camphor.....gr. ij.
Mentholgr. ʒ.
Naphthol, Bgr. iij m.

Fiat Cachet, j. Mitte, xij.

MAJOR EXAMINATION.

MATERIA MEDICA AND TOXICOLOGY.

1. Give source, habitat, nat. ord., parts used, physical characteristics and B.P. preparations, with percentage, composition, and dose, of the following: Ammoniacum, jalapae, sabadillae, stramonium.
2. What is phenazone? From what is it obtained? Give dose and three tests.
3. Define diaphoretic, chalogogue, narcotic, soporific, mydriatic, and give one example of each.
4. Describe fully the treatment to be followed in cases of poisoning by cyanide of potassium, carbolic acid, paris green, oxalic acid, and illuminating gas.
5. Give the physical characteristics by which you can distinguish serpentariae from spigeliae, buchu from bearberry, and senega from ipecac.
6. What is the difference between scammony and resin of scammony? Give habitat, nat. order, and their preparations.

BOTANY.

1. Botanically speaking, what is a rose bush? Diagnose and give a full description of its flower. Are double roses natural flowers? Are rose trees provided with thorns or prickles? How do you prove it?

2. What is racine, a periginous stamen, a versatile anther, a peltate leaf, an orthopous ovule, a culm, a legume, and the medullary sheath?

3. Give a concise description and names of the different organs of vegetation and reproduction of a maple tree.

4. What is the difference between a sorosis and a cone, a sessile and an amplexicaul leaf, a scion and a runner, a suffruticose, a rhizome and a tendril?

5. What are the living parts of a spruce tree fifty years old? Give in rotation, beginning with the periphery, the different layers of a cross-section of a palm tree?

6. What are the differences which distinguish the animal kingdom from the vegetable kingdom? From whence does each derive its nourishment? Which do you think most beneficial to mankind? Why?

CHEMISTRY.

1. (a) What relation exists between aldehyde, alcohols and acids? (b) How can aldehyde be artificially formed from primary ethyl-alcohol? (c) What is paraldehyde? Give its formula.

2. (a) How would you find the specific gravity of gases? (b) What corrections have to be made, and in regard to what? A certain volume of gas measures 8 fld. ozs. at 740 mm. pressure, and at a temperature of 0 deg. C., what will it measure at the same pressure, temperature being 50 F.?

3. Explain the chemistry of bread-making. What is the name of the official B.P. preparation of bread? Is there any alcohol in it? If so, what percentage?

4. State all you know of acids of phosphorous, and give formulae, being careful to make the distinction between acids of phosphorus and varieties of phosphoric acid. How does a solution of silver nitrate react on the different varieties of phosphoric acid?

5. (a) State the difference between a ferrous and a ferric salt. (b) Give two tests by which you can distinguish one from the other. (c) How would you classify ferri perchloridium and ferri pyrophosph solubilis, U.S.P.? Is this last one merely a pyrophosphate of iron, and how would you manufacture it?

6. What is meant by water of crystalization? In what physical state is water existing as such? How much water of crystalization does acetate of sodium contain? How much anhydrous sodium acetate will one hundred pounds of sodium acetate salts yield? How would you proceed to eliminate the water? How would you term the remaining powder after the process?

PHARMACY.

1. Give a brief definition of the following terms: Ignition, incineration, fusion, calcination, deflagration, carbonisation, torrifaction, and sublimation.

2. Given three samples of opium, containing respectively, $6\frac{1}{2}$ per cent., $7\frac{1}{2}$ per cent., and 12 per cent. of morphine; what quantity of each much be employed to make one gallon of tincture of opium, B.P.?

3. By what simple chemical reaction would you distinguish morphine from quinine?

4. Glycerine. What is it, and how obtained? Give its chemical formula, specific gravity, and chemical tests for purity, and state what those tests indicate.

5. Liq. ammon. fort. Explain its preparation, and give the equations. What is its specific gravity, its strength, by weight or volume? What are its chemical tests for purity, and what do they indicate?

6. What are the substances generally employed for adulterating essential oils? Indicate a few practical means for detecting each of such adulterants.

CONFIDENCES MAY NOT BE VIOLATED.

The Supreme Court of Michigan has just rendered a decision upholding the decision of Judge Adsit, of the Circuit Court, which is of importance to all operators in new fields of invention, employers and employees, where of necessity the knowledge of secret processes is imparted to trusted assistants.

The case decided was that of the O. & W. Thum Co., manufacturers of Tanglefoot fly paper, against one of its former employees, who had threatened to impart to others the information he had acquired while in the employ of this company.

It is of interest to all proprietors and inventors of specialties to know that their formulae and methods, the product of their invention and labor, are considered by the courts as property with rights inviolable, and that their employees who are taught and learn the process of manufacture and the composition of the product, are not free to part with such information to others for a consideration, nor even to engage in the manufacture of such specialties on their own account.

The decision is clearly in the interests of justice, morality, and good business, for in no other way can such enterprises be developed to their fullest possibilities, making possible the employment of many operators and the cheapening of product which accompanies large production. From a standpoint of justice and good morals there can be no question about the right of each one to the fruits of his own effort and thought, gained sometimes only after years of experience and experimenting, and often at great cost before a satisfactory result and success is obtained.

The decision was based upon points of law and of common justice, and will give eminent satisfaction to all engaged in the manufacture of such specialties.

The company was rather stubbornly and persistently opposed by its opponents, but through the able efforts of its attorney, W. W. Hyde, it maintained its position in every step and stage of the case.

NEWS ITEMS.

J. B. Williams, Guelph, has assigned.

Dr. R. McFatridge, of Halifax, is dead.

W. A. Swallowood is opening a business in Ottawa, Ont.

C. S. Judson, Wallaceburg, has sold out to Hay & Co.

N. Lapsley has moved from Stevenson to Skagway Bay, B.C.

G. W. Campbell, Palmerston, is advertising his business for sale.

E. H. Lawson has started a drug business in Westmount, Montreal.

Drs. Barridge and Morrison are opening a drug store in Holland, Man.

Arthur Young, of Neepawa, has opened a new business in Macleod, Man.

The incorporation of the Abbey Effervescent Salt Co. has been registered.

F. S. Thompson, Hanover, has sold out to A. E. Pirt, recently of Uxbridge.

C. K. McGregor, of the White Drug Store, Brantford is offering his business for sale.

The Granby Rubber Co., of Granby, Que., has increased its capital stock to \$600,000.

The firm name of W. C. Law & Co., of Beeton, has been changed to Law & Sisson.

We regret to notice that T. F. Abby, of Revelstoke, B.C., has lost his place by fire.

The estate of M. H. Boissette, patent medicines, Montreal, was sold by auction on 25th Oct.

Dr. A. M. Argue has purchased the drug business of Dr. J. Hutchinson at Grenfell, N.W.T.

Morrow & McLean, Rossland, B.C., have dissolved, and Mr. Morrow continues the business.

Miller & Kennedy, of Ottawa, have dissolved, and the business is continued by G. E. Kennedy.

Dr. W. Henderson has purchased the business of J. Unsworth & Co., Qu'Appelle Station, N.W.T.

The firm of Smith & Caughlin, of Arthur, has dissolved, and F. J. Smith continues the business.

Hillman & Murault, aerated waters, Ottawa, have dissolved, and the business is continued by Eugene Murault.

All three of the drug stores were wiped out by the fire which laid waste the town of Windsor, N.S., on Oct. 19.

London, Ont., was startled on Oct. 20th by the death from chloroform of Dr. G. C. Davis, dentist. He was found dead in his office about seven o'clock, by an assistant. It is supposed that he took an inhalation of the drug for sleeplessness or headache, which proved immediately fatal. Dr. Davis was one of the city's smartest and most popular young men, prominent in political, municipal, and society life.

TORONTO NEWS.

G. T. Reid, recently with R. Tuthill, Market Drug Store, has purchased the branch of E. G. Lemaitre, at 684 Queen street west.

Mr. Fielding, late of Holgate, Fielding Co., has returned from a trip through the Eastern States.

Mr. G. P. Watt, accountant of Messrs. Lyman Sons & Co., Montreal, spent his holidays in the city, and was present at the Lyman Bros. & Co. bicycle races.

Mr. T. D. Beattie, of the Quickcure Co., Quebec, who has been looking after the firm's interests at the exhibitions in Montreal, Toronto, and Ottawa, is again in the city.

Mr. G. A. McCann has secured the Dominion agency for Messrs. A. M. Foster & Co., Chicago and Boston, prescription glassware and rubber goods. Mr. McCann has located his office at 15 Jordan street.

What about the T.R.D.A.? Have the druggists of the city forgotten that such an organization exists? The first meeting should have been held in October. The meetings of the association last year were interesting, and can be made more so with slight effort.

J. R. Bond, of 491 Yonge street, and H. Horton, 138 Dundas street, have gotten out their little guns and hied them away to the "happy hunting grounds" of Muskoka, with the avowed object of diminishing the number of deer that inhabit that rocky region. Incidentally, they hope to imbibe enough ozone to replace the nervous expenditure of the past year.

T. McIntyre, corner Carlton and Bleeker streets, was charged in the Police Court by the Infringement Committee of the Ontario College of Pharmacy with "keeping open shop, and calling himself a chemist and druggist without proper qualifications." After taking the evidence of Mr. McIntyre and his assistant, the case was dismissed by the magistrate.

Mr. J. N. McEchran, on the editorial staff of the Chicago *Evening Post*, spent a few days in the city. Mr. McEchran is an old Galt boy, and a graduate of the O.C.P. He was in business in Ottawa for a short time, and afterwards occupied a position in the employ of Messrs. Parke, Davis & Co., Detroit. From there he drifted to the "Windy City," and abandoned pharmacy for journalism. Mr. McEchran is at present enjoying his holidays at his father's home in Galt.

The fire in the old Jacques & Hays building on the night of the 19th, gave the proprietors of a number of surrounding concerns an anxious hour or two. Prospects for a time were bright for an extensive conflagration. A newly-completed fire wall and the absence of wind allowed the firemen to get control, notwithstanding a partial breakdown of the water service. Messrs. Scott & Bowne and the Dodds Medicine Co. just escaped a scorching.

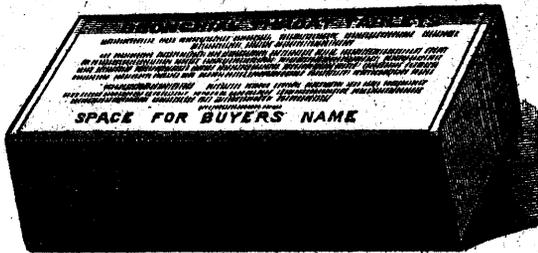
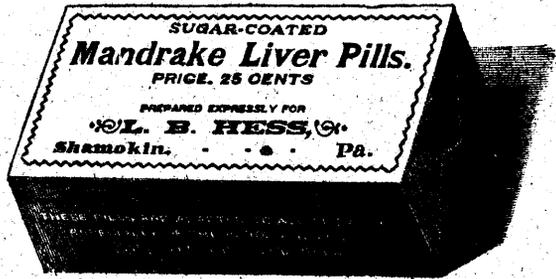
40 Years of Experience at Your Service....

VEGETABLE MANDRAKE LIVER PILLS....

Twenty-five pills in each oval box, with oblong carton, any name and address, ready for sale.

Per gross, \$6.50.

Special quotations given on large lots.



BRONCHIAL THROAT TABLETS. Very Attractive.

Packed in neat slide boxes, 32 tablets in each, with dozen packers, buyer's name and address.

Per gross, \$7.00.

Special quotations for large lots. These tablets are also furnished under our own name.

Bromo Soda....

**Highly Effervescent.
Needs no Stirring.
The most Efficacious Remedy of Its kind.**

CAFFEINE, 1 gr.

Composition:

BROMIDE OF SODIUM, 30 grs.

Useful in Nervous Headache, Sleeplessness, Excessive Study, Over Brainwork, Nervous Debility, Mania, etc., etc.

DOSE.—A tablespoonful in half a glass of water, to be repeated once after an interval of thirty minutes, if necessary.

It is claimed by some prominent specialists in nervous diseases, that the Sodium Salt is more acceptable to the stomach than the Bromide Potassium. An almost certain relief is given by the administration of this Effervescent Salt. It is also used with advantage in indigestion, depression following alcoholic and other excesses, as well as nervous headache. It affords speedy relief for mental and physical exhaustion.

Large Size, \$1.00. \$7.50 Per Doz.

WM. R. WARNER & CO.

Philadelphia. New York. Chicago.



Prepared from
Gizzard of the
Chicken.

INGLUVIN.

A powder used with
superior results in all
cases where pepsin may
be indicated.

A Specific for Vomiting in Pregnancy.

DOSE—5 to 20 grains.

FROM PROF. ROBERTS BARTHLOW'S, M.A., M.D., LL.D.,

—WORK ON—

Materia Medica and Therapeutics

EDITION 1879.

“**INGLUVIN**.—This is a preparation from the gizzard of the domestic chicken—*ventriculus callosus gallinaceus*. Dose gr. v.—j.

Ingluvin has the remarkable property of arresting certain kinds of vomiting—notably the vomiting of pregnancy. It is a stomachic tonic, and relieves indigestion, flatulence and dyspepsia.

The author's experience is confirmatory of the statements which have been put forth regarding the exceptional power of this agent to arrest the vomiting of pregnancy. It can be administered in inflammatory conditions of the mucous membrane, as it has no irritant effect. Under ordinary circumstances, and when the object of its administration is to promote the digestive functions, it should be administered after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals.”

EDITIONS 1889 and 1896.

“**INGLUVIN** is a * * * preparation said to be made of the gizzard of the domestic chicken (*ventriculus callosus gallinaceus*). Dose, gr. v.—ʒj. Ingluvin has the remarkable property of arresting certain kinds of vomiting—notably the vomiting of pregnancy. It is a stomachic tonic, and relieves indigestion, flatulence and dyspepsia.

Recent investigations have shown that Ingluvin owes its curative effects, not to any ferment corresponding to pepsin, but to a peculiar bitter principle. This result is the more satisfactory, since such an organ as the gizzard could hardly furnish the necessary quantity of a digestive ferment to effect the results now known to be produced by Ingluvin.

Under ordinary circumstances, and when the object of its administration is to promote the digestive function, it should be taken after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals.

But only the successful use of this agent and the apparent sincerity of the composition as given to the public would seem to justify its mention here.”

WM. R. WARNER & CO.,

1228 Market St., Philadelphia. 52 Maiden Lane, New York. 197 Randolph St., Chicago

MANUFACTURERS OF

SOLUBLE
RELIABLE
PERMANENT

PILLS and GRANULES

SUGAR AND
GELATIN
COATED

Standard Fluid Extracts

Pills, Parvules

Ingluvin, Bromo Soda

Compressed Tablets

Hypodermic Tablets

and all Standard Pharmaceutical Products.

Dosimetric Granules

Tablet Triturates

Elixir Salicylic Comp.

Eff. Gran. Salts

Elixirs, Wines, etc.

The Great Selling Specialty

WARNER'S ORIGINAL LITHIA WATER TABLETS

(3 and 5 Grains)

WARNER'S Lithia Water Tablets are permanent, which is an important consideration to druggists who must necessarily carry quantities of this class of very salable goods.

Packed in bottles easily carried in the pocket.

ADVANTAGES :

Convenience.

Accuracy.

Portability.

If preferred we will put them up in three dozen lots under buyer's name and address.

3 gr. per gross,	\$21.00
5 " " "	33.00
3 " per dozen,	2.00
5 " " "	3.00

Your Pill Trade will stay with you

In spite of "cut prices" and other disturbing influences if you buy right.

Little Cathartic Granules, 30 granules in each vial, with buyer's name and address, ready for sale, cost :

VERY POPULAR
SELLERS



\$6.50 PER GROSS.

Discount for Quantities.

33 1/2 per cent. profit if retailed at	6 cents
50 " " " "	7 "
100 " " " "	9 "
200 " " " "	14 "
450 " " " "	25 "

Study these figures carefully. You will find there is a margin enabling you to meet any competition, or better still, there's a good profit after you have taken out the necessary sum to push and advertise "your own" Little Cathartic Granules at "your own" price.

PILLS.



PURE Drugs in the hands of our experienced chemists result in producing a pill that is permanent, soluble, potent and reliable.

All Private Formulæ sent to us for quotation and manufacture are under our personal supervision, and are absolutely protected.

Sugar Coated Pills, any color.

Gelatin " " no "Pin" Holes.

Our Pill List comprises all Standard Formulæ.

Write for Epitome of Prices Current.

2 Grain Quinine Pills.

In Bottles of 100 with your label.

For handy retailing.

We make a specialty of putting up in this form (in lots of 3,000 and upwards) the best seller the druggist has, and the one in which he finds the most competition.

Our quotations are subject to the ruling price of quinine, but our customers always get the benefit of our large quantity buying, and facilities for economical manufacturing.

**Send for Latest
Quotations.**

Mass.—Skilfully prepared from pure drugs.

Shape.—Round, Oval, Lentiform.

Coating.—Sugar or Gelatin.

Absolutely reliable and will resist atmospheric conditions.

Mr. Geo. Anderson, of the Royal Oil Works, who has been on a special trip to Japan, commissioned by the Dominion Government to enquire into the condition of trade in that country, and the possibility of developing Canadian industry in that direction, has returned to Toronto, and speaks most encouragingly of the prospects. In his report to the Government Mr. Anderson will indicate upwards of a hundred items of Canadian produce and manufacture in which there can be an active business done with Japan, and perhaps with China also. This trade will have to be gone after, as it will not seek us out. It is to be sincerely hoped that Canadian enterprise will be equal to the occasion.

Again the store at the corner of Queen and Elizabeth streets is vacant. The last tenant is said to have "skipped by the light of the moon," leaving a sorrowing and troubled landlord and anxious creditors. The way is open for another victim. Seven failures in about four years should be sufficient to convince the most sanguine, that efforts to build a business in that spot will be fruitless, and should also be sufficient to deter wholesale houses from assisting with a line of credit such hopeless undertakings. Encouragement by wholesale houses of just such ventures has been one of the main factors in working ruin and destruction to the drug trade of Toronto.

Have you interviewed the member for your constituency regarding amendments to the Pharmacy Act? If not, do so at once.

AMERICAN NEWS NOTE.

Commissioner Blackburn, of Ohio, after warning dealers against handling patent medicines containing poisons, without such being stated on the label, proposes starting an active campaign against the practice. A similar campaign in Canada would have rather a disastrous effect in some of the preparations now being offered to the public.

Answers.

HARMLESS GREEN COLORING. (L., Montreal). Chlorophyll does not always yield satisfactory results, but we have found the following to answer all requirements:

- Tinct. carthamus (Amer. saffron).. 8 oz.
- Glycerine 8 oz.
- Sol. Indigo carmine..... q.s

Mix the glycerine and tincture together; then add the solution of indigo-carmin till the proper tint is obtained. The solution of indigo-carmin is made by dissolving 1 oz. indigo-carmin in 16 ounces water.

SYRUP OF ACONITE. (R., Montreal), may be made by mixing:

- Tincture of aconite 1 oz.
- Syrup.....to 20 oz.

It is official in the Codex.

INFUSION DE FLEURS PECTORALES. (R., Montreal). Dorvault gives the following formula for fleurs pectorales, under the title *Especies pectorales*:

- Marsh-mallow root 8
- Liquorice root..... 4
- Orris root..... 4
- Ground ivy root 4
- Coltsfoot leaves..... 4
- Red poppy petals 2
- Star anise..... 1

To be ground together.

To make the infusion, we would recommend you to take of the above, 10 parts, pour on 100 parts of boiling water, and allow to stand, well covered, till cold; then strain, and add water through the strainer to 100 parts.

TOILET CREAM. Tyro. The following gives an efficient and reliable emollient:

- Quince seed 1½ oz.
 - Boiling water 40 "
- Infuse over night; strain through cloth, and add:
- Glycerine.....12 oz.
 - Boric acid.....½ "
 - Alcohol.....10 "
 - Perfume.....q.s.
 - Liquid carmine (N.F.).... 1 dr.
 - Water to ½ gal.

CARBOLIC TOOTH WASH. (Ottawa.) The addition of a very small quantity of carbolic acid to any good tooth wash will suit your purpose. Try the following:

- Castile soap 1 dr.
- Carbolic acid.....½ "
- Oil peppermint.....½ "
- Oil wintergreen 3 "
- Oil of anise..... 1 "
- Liq. carmine, N.F. 1 "
- Saccharine 5 grs.
- Alcohol.... 10 oz.
- Water.... 10 oz.

Allow to stand till the soap is entirely dissolved, then filter.

WILD CHERRY AND PRUNUS VIRGINIANA. S., Quebec. The official Latin name of wild cherry bark is *Prunus virginiana*. It is not the bark of the tree bearing this botanical name, but is obtained from *Prunus serotina*. The bark of *Prunus virginiana* is not the official drug, and you would not be justified in filling a prescription calling for fluid extract *pruni. virg.* with an extract from this bark. The extract from the bark of *Prunus serotina* is what should be dispensed.

CLEMENS' SOLUTION. Toronto. You will find the formula for this in the National Formulary, under *Liquor Potassii Arsenatis et Bromidi*:

- Arsenious acid. 10 gms.
- Potassium bicarbonate 10 "
- Bromine 15.5 "
- Water to make 1,000 cc.

Boil the arsenious acid and potassium bicarbonate and 125 cc. of water until solution is effected. Allow to cool; add 625 cc. of water, then the bromine, and enough water to make 1,000 cc.

This is sometimes called Clemens' solution of bromide of arsenic, but the name is not correct.

Liq. THYMOL CO., N.S. We cannot give you the formula for the preparation, as it is known only to the manufacturers. The following, however, is one which has been offered in its stead :

Thymol	6 grs.
Boric acid	30 grs.
Oil eucalyptus.....	4 oz.
Oil wintergreen.....	1 oz.
Alcohol	½ oz.
Glycerine ...	½ oz.
Water to make.....	16 oz.

ANESIN.

Is a new synthetic compound introduced by Hoffman, La Roche & Co., of Basle, as an hypnotic and anaesthetic. The dose is .50 to 1 gms. (7 to 16 grs.)

Recent Papers.

SOLUBLE FERRIC PHOSPHATE. W. A. Puckner, Chicago. Paper at A. Ph. A. meeting, Lake Minnetonka.

After discussing the various causes of variation in the official process, the writer offers the following process for the preparation of this compound:

Ferrous sulphate in clear crystal..	156 gms.
Sulphuric acid.....	20 cc.
Potassium chlorate.....	12 gms.
Ammonia water	340 cc.
Citric acid	120 cc.
Sodium phosphate	200 gms.
Water.....	q.s.

Add the sulphuric acid to 240 cc. of water, contained in a glass or porcelain vessel; to this add the ferrous sulphate; warm gently till dissolved; then add the potassium chlorate, and continue the heat till the ferrous is converted into ferric sulphate, as shown by the ferricyanide test. Add the solution gradually and with constant agitation, to the ammonia water; to the mixture add 4,000 cc. hot water, allow to subside, and after half an hour decant or siphon off the supernatant liquid. Again wash with 2,000 cc. hot water, and repeat with six portions of water; then add to the magma, the citric acid and sodium phosphate; warm gently until solution results, and evaporate on a water bath at a temperature not exceeding 60 deg. C., until the solution weighs 500 gms., and spread on plates of glass, so that when dry the salt may be obtained in scales.

The advantages claimed for this formula are: By substituting potassium chlorate for nitric acid, the evolution of nitrous fumes is obviated. The washing of the ferric hydrate by decantation is easier of manipulation, and as no loss of iron need be incurred, one source of variation in the official process is obviated.

To prepare a 50 per cent. solution of ferric phosphate 50 per cent., the process is the same, only that the solution is simply evaporated to 500 cc. on a water bath.

SOLUBLE FLUID EXTRACT OF WILD CHERRY. J. M. Good, St. Louis. Paper read at A. Ph. A. meeting, Lake Minnetonka.

The official fluid extract of wild cherry does not mix clear with syrup or wine, and a formula for an extract which would do so being required, Prof. Good offered the following as yielding a preparation perfectly soluble in these liquids: 100 gms. of wild cherry bark in No. 20 powder are divided into four portions of 250 gms. Each portion is moistened with a mixture of 250 cc. of glycerine, and 50 cc. of water, and packed in a percolator, closely covered, and allowed to macerate for 48 hours, and percolated with a menstruum of 200 cc. of glycerine, 200 cc. of alcohol, and 600 cc. of water. From the first percolator 150 cc. are reserved, from the second, 200 cc.; from the third, 250 cc.; and from the fourth, 300 cc.; making a total of 900 cc. The weak percolates may be collected in portions and used in subsequent operations, in which 1,000 cc. of fluid extract may be obtained from 1,000 gms. of drug.

PAMBOTANO (Calliandra Houstoni), as a succedaneum of cinchona (Etude sur le Pambotano comme succedani du quinquina). Thesis by Dr. J. Dinan, Union Pharmaceutique.

According to Baillon, pambotano is the root of calliandra houstoni, and probably of *C. grandiflora*, which grows in Mexico. It contains a safranine, an alkaloid, a red-colored resin, soluble in dilute alkalis, and a colorless resin. Some chemists have found tannins, as well as fatty bodies, and a small proportion of essential oil. The medium use of the root is 60 to 80 gms., in the form of decoction or elixir.

KINOS. Jos. Bosisto, C.M.G., *Pharmaceutical Journal*, Aug. 28.

This paper was sent to the British Pharmaceutical conference, but was received too late for the meeting, and has since been published in the before-mentioned journal. Official kino is now almost unobtainable, and the writer suggests that some of the kinos of Australian origin, such as that exuded from eucalyptus rostrata, should be used instead. This kino, which is formed between the bark and wood of eucalyptus rostrata, when evaporated in a vacuum pan yields a ruby red gum, soluble in water or spirit, and fills all the therapeutic indications of the official kino.

Florida Water.

Oil of lavender flowers	1 oz.
Oil of bergamot	4 drs.
Oil of cloves	2 "
Oil of rose geranium	50 m.
Oil of cinnamon	15 "
Benzoic acid	120 grs.
Storax.....	60 "
Water	4 oz.
Alcohol.....	64 "

Macerate two weeks and filter.

Students' Department.

[In this Department we will publish a series of lectures covering the subjects of Pharmacy, Materia Medica, Chemistry and Botany. Of course they will be condensed, the inference being that the student will supplement these, as he would do ordinary college lectures, by reference to standard works upon each subject.]

RULES TO BE OBSERVED IN RETURNING ANSWERS.

1. Write on one side of the paper only.
2. Leave a margin of about two inches on the left-hand side for corrections, etc.
3. A stamped and addressed envelope must be sent with the answer.
4. Address your replies to the Editor, J. E. Morrison, P.O. Box 683, Montreal, P.Q.

In commencing our third competition we wish to draw the attention of clerks and apprentices to the advantages which we offer. The series will cover the branches upon which students will be examined as licentiates, and the practice afforded of working out and answering the questions given each month will be found of great value, as accustoming one to readily and correctly answer the regular examination questions. The only requirement for entrance is that the student be a paid-up subscriber, the subscription price, \$1.00 per annum in advance, covering the privilege of answering the questions, having your answers corrected, and a chance at the valuable prizes offered. We would like to see a large number of competitors. We have already had two competitions, which have been fairly successful, as far as number of competitors is concerned, but we want more to come in.

The winners in the competition just closed are:
 1st, Percy Murray, Earl street, Kingston.
 2nd, O. H. Tansey, Montreal.
 3rd, H. P. Boughton, Bradford, Ont.

LECTURE NO. 2—THIRD SERIES.

LAMELLAE DISCS.

Are small gelatine discs, used in ophthalmic practice, for the purpose of bringing the medicinal agent in contact with the diseased part. Not official in the U.S.P.

	Weight of disc., about.	Proportion of active constituent.
Lamella Atropinae	1/8 gr.	1/1000 gr.
" Cocaina	1/8 gr.	1/100 gr.
" Physostigminae	1/8 gr.	1/1000 gr.

LINIMENTA.

LINIMENTS.

These are preparations intended for external application, and are either spirituous solutions or oleaginous mixtures:

LINIMENTS OF THE B. P.

	Percentage of active ingredients.	Menstruum.
Aconiti	66 2/3	S. V. R.
Ammonia	Ammonia Water, 25	Olive Oil
Belladonna	66 2/3	S. V. R.
Calcis	Sol. Lime, 50	Olive Oil
Camphor	20	"
Camphor Comp.	Camphor, 12 1/2	S. V. R.

Chloroformi	50	Lin. Camphor
Crotonis	12 1/2	Oil Cajeputi S. V. R.
Hydrargri	Oint. Mercury, 33 1/2	Liq. Ammonia
Iodi	12 1/2	Lin. Camphor
Opii	Tinct. Opium, 50	Glycerine
Potassii Iodidi	Curd Soap, 16 (about)	S. V. R.
Pot. Iodid Sapone	Potassium Iodide, 12 (about)	Lin. Saponis
Saponis	Oil Lemon, 1 Soap, 10	Glycerine
Sinapis Comp.	Camphor, 5 with Oil Rosemary	Rectified Spirit
Terebinthinae	Oil Turpentine, 80	Water
" Aceticum	Oil Turpentine, 45 Glac Acetic Acid, 11	Water

LINIMENTS OF THE U. S. P.

Ammonia	Ammon. Water, 35	Cotton Seed Oil
Calcis	Solution of Lime, 50	Linseed Oil
Camphora	20	Cotton Seed Oil
Belladonna	Camphor, 5 Fld. Ext. Belladonna, 95	
Chloroformi	Chloroform, 30	Soap Liniment
Saponis	Soap, 7 Camphor, 4 1/2 Oil Rosemary, 1	Alcohol, 75% Water to 100%
Saponis Mollis	Soft Soap, 65 Oil Lavender, 2	Alcohol, 30% Water to 100%
Sinapis Comp.	Vol. Oil Mustard, 3	Castor, 15%
Terebinthinae	Fld. Ext. Meze- rum, 20 Camphor, 6 Resin Cerate, 65 Oil Turpentine to 100	Alcohol to 100%

REMARKS.

Liniments of aconite and belladonna are prepared by percolating the drug in No. 40 powder with rectified spirit, and dissolving the camphor in the percolate. They are highly concentrated preparations, almost as strong as the fluid extracts of the U.S.P.

Liniments of ammonia, lime, and mercury, are really solutions of lime and ammonia soaps in olive oil, the soaps being formed by the action of the alkalis upon the oil; in liniment of mercury these are combined with mercury and camphor.

Liniment of potassium iodide with soap, differs greatly from most of the other liniments in con-

sistence, being of a gelatinous character. In its preparation the solution of curd soap and potassium iodide are allowed to react for an hour before the oil of lemon is added.

In the preparation of soap liniment the temperature must not be allowed to exceed 70 deg. F. The reason for this is that castile soap consists of sodium oleate, stearate, margarate, and palmitate. The latter are but slightly soluble in spirit at this temperature. Consequently, if a greater heat be used these are dissolved, and on cooling down to the normal temperature, are precipitated, and in cool weather the liniment thus made would become gelatinous. Again, the camphor and a portion of the spirit would be volatilized, causing loss of these two constituents.

Linimentum terebinthina, according to the late Prof. Redwood, the originator of this formula, should be a "thick, creamy emulsion," but it more frequently is a jelly. A great many communications appeared in the English journals immediately after the appearance of the last edition of the B.P., but no two writers seemed to agree in their conclusions as to what caused the difference in consistence, and the remedy. The consensus of opinion, however, seemed to point to varying alkalinity of the soft soap, as the principal cause of the variation in consistency. Squire recommends the addition of two or three times the official quantity of water, as the best means of restoring the fluid of the mixture.

Obituary.

MR. BALDWIN JACKES.

The subject of this short sketch passed away to his long home from his late residence, 77 St. Joseph street, on Oct. 8, aged 49. Mr. Jackes was a Canadian, born at "Castlefield," Eglinton, Ont., of English and Scotch parentage. His early days were spent in his native village, where the rudiments of an education were acquired, which was subsequently completed at Upper Canada College and Toronto University.

Selecting pharmacy as a calling, he entered the service of H. Miller & Co., Galt, as an apprentice. At the completion of his term of studies and training, he, together with his brother, started in business on King street west, corner Jordan, Toronto, in the store at present occupied by Wheaton & Co. This business they conducted from 1872 until 1878, when a separation took place, Mr. Price Jackes going to take charge of Messrs. Lyman Bros' laboratory, as manufacturing chemist, a position which he still holds, and Mr. Baldwin moving the business to 351 Yonge street. Here he remained until failing health compelled a change, some seven years ago, when he disposed of the business to Mr. Boyle. A trip to California was not successful in restoring him to a condition of health that would warrant engaging in business again, so that since that time he has been living retired.

Mr. Jackes being of a studious turn of mind, interested himself in the professional side of pharmacy. Up till about a year ago he had been connected with the Ontario College of Pharmacy, as examiner in chemistry. In religion Mr. Jackes was an Anglican, for many years a churchwarden of Grace church.

For about a week previous to his death he had been ailing, but not considered serious, until within a few hours of the end, which came somewhat suddenly. The funeral was held on the 9th, and the remains were interred in Mount Pleasant cemetery. A widow and two sons are left to mourn his departure.

G. W. LILLIE.

A cable to the city from Berlin on Monday, Oct. 25, conveyed the intelligence that the above gentleman had died suddenly at the latter city. Although not in robust health for some time past, Mr. Lillie's early demise was not looked for, and came as a shock to his many friends. Mr. Lillie was a son of the late Dr. Adam Lillie, a minister of the Congregational Church, and was born in Guelph. He came to Toronto when a young man, entering the firm of Messrs. Lyman Bros. as accountant. When the firm was changed to a limited company he became one of the principal stockholders, and assumed the position of secretary-treasurer, which he held until the last annual meeting, when he retired from the position and severed his connection, which had lasted through a period of thirty years, with the company.

In his younger days Mr. Lillie had a taste for military affairs, and as a member of the Queen's Own, saw service at Ridgeway during the Fenian raid of 1866.

At the time of death he was visiting his daughter, Mrs. Mahr, in Berlin, Germany. Somewhat against the advice of his physician, he took the trip, hoping for benefit from the voyage, sailing on the "Kensington" for Antwerp, on Sept. 15, from New York. His hopes were not realized, for although the sea voyage was a pleasant one, and appeared to benefit him, the railway journey from Antwerp to Berlin produced prostration, from which he never rallied. In private life Mr. Lillie was a genial, companionable gentleman, much beloved by an inner circle of friends who knew him best.

DR. A. M. ROSS.

A despatch from Detroit on October 28 conveyed the intelligence that Dr. A. M. Ross had died in that city the day previous. Few men were better known down-town in Toronto than the doctor. Newspaper men were his particular friends. His determined opposition to vaccination as a preventative of smallpox made him somewhat famous in Canada. As a champion of the oppressed, the doctor's fame was world-wide, and few lives have had more of romance and adventure in them than had the doctor's.

The doctor was entirely self-made, being turned

upon the world while yet a little boy, with his living to make. He tramped from his home in Belleville to New York, and secured a situation as printer's devil on the *Post*, at that time owned and edited by Wm. Cullen Bryant. So poor was he that he lived on oatmeal and water. The studious, frugal boy attracted the attention of Mr. Bryant, who pushed him on till he became a compositor. In 1851 he determined to take up the study of medicine, and for four years labored at the case in the day, and studied medicine at night, until he received his degree of M.D. It was during these years he formed the friendship of the Italian patriot, Garibaldi, a friendship ending only with the latter's death, in 1882. He had the instincts of travel and adventure strong in him, and his first venture was of the most romantic nature, being that of surgeon to General Walker's Nicaraguan expedition, one of his companions being the Poet Joaquin Miller, who has since rendered it famous in song. He was a friend and associate of the great abolitionist martyr John Brown. With him he conducted the underground railway for the conveyance of escaped slaves to Canada. For his labors in this cause, Senator Wade, vice-president of the U.S.A., spoke as follows :

"Never in the history of the world did the same number of men perform so great an amount of good for the human race and for their country as the once-despised abolitionists, and it is my duty to add that no one of their number submitted to greater privations, perils, and sacrifices, or did

more in the great and noble work, than Alexander Ross."

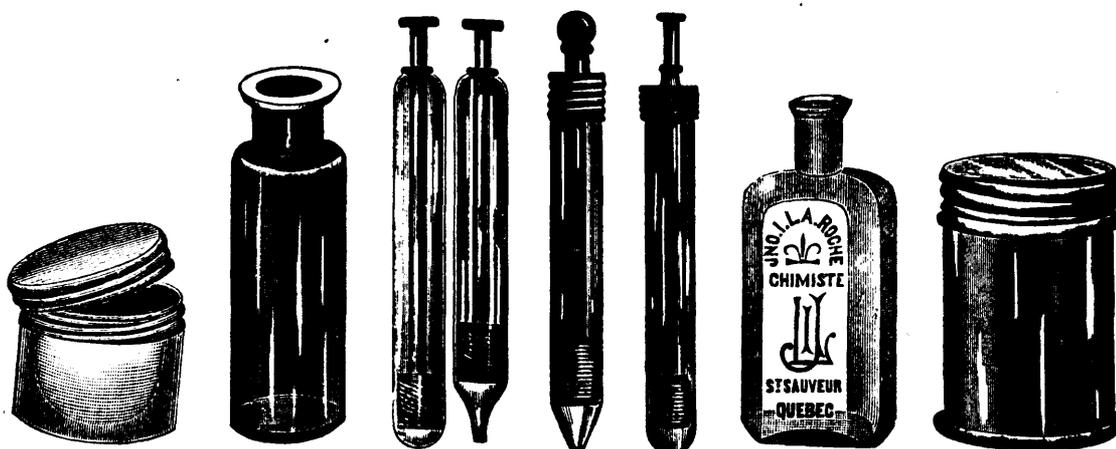
Of him the poet, John G. Whittier penned the following :

For his steadfast strength and courage
 In a dark and evil time,
 When the Golden Rule was treason,
 And to feed the hungry, crime;
 For the poor slave's hope and refuge,
 When the hound was on his track,
 And saint and sinner, state and church,
 Joined hands to send him back;
 Blessings upon him!—What he did
 For each sad, suffering one,
 Chained, hunted, scourged and bleeding—
 Unto our Lord was done.

During the civil war he was a personal and trusted friend of President Lincoln. In the field of science he was famous throughout the world, devoting special attention to ornithology, ichthyology, botany, and entomology of Canada. He has collected and classified 570 species of birds, that regularly or occasionally visit the Dominion of Canada, 240 species of eggs of birds that breed in Canada; 247 species of mammals, reptiles and fresh-water fish; 3,400 species of insects, and 2,200 species of Canadian flora. This contribution to science put the Continent of North America on a basis as complete as that of any in the world.

A list of the books written by him, and the honors conferred on him would occupy more space than is at our disposal. Sufficient

Druggists' Glassware



The above cuts represent some of the goods we manufacture.

QUOTATIONS CHEERFULLY GIVEN ON APPLICATION.

Beaver Flint Glass Co., of Toronto,

(LIMITED).

Office and Factory:
 WINCHESTER & PARLIAMENT STS.,

TORONTO, CANADA.

Telephone 3110.

Kindly specify our goods when ordering from Wholesale.

Kindly mention this Journal when writing to Advertisers.

to say that scarcely a scientific organization of Europe but what has honored him with a membership, or a crowned head but what has conferred an honor on him; and yet he went in and out amongst us as plain Dr. Ross, with a heart ever responsive to the need of the poor or cry of the oppressed—a hero of the noblest order.

Formula.

An Ointment for Chapped Hands

The *Therapeutische Wochenschrift* for September gives the following formula as Steffen's:

R. Menthol.... .. 10 grains
Salol, olive oil (each) 20 "
Lanolin..... .. .675 "

M.

Mentholated Collodion in the Treatment of Contusions.

The *Journal de Medecine de Paris* for September 12th attributes the following formula to Name:

R. Mentholfrom 3 to 6 parts.
Collodion.... .. from 24 to 27 parts

M.S.: To be painted on once or twice a day. It is said to relieve the pain promptly, and by the contractile action of the collodion, to hasten the absorption of the effusion, provided it is not a joint that has been bruised.

Paste for Mounting Photographs.

Starch 2 oz.
Gelatine ½ oz.
Rectified spirit 2 oz.
Salicylic acid ½ dr.
Water..... .. 12 oz.

Soak the gelatine in two ounces of water. Boil the starch with the remainder of the water till a jelly is formed; add the gelatine, and afterwards the spirit and salicylic acid.

Solution of Sodium Citro-Phosphate.

Sodium phosphate 100 gms.
Sodium nitrate 2 "
Citric acid 13 "
Water to make 100 cc.

Triturate the chemicals till they liquefy, then add the water.

Collodium Salicylicum.

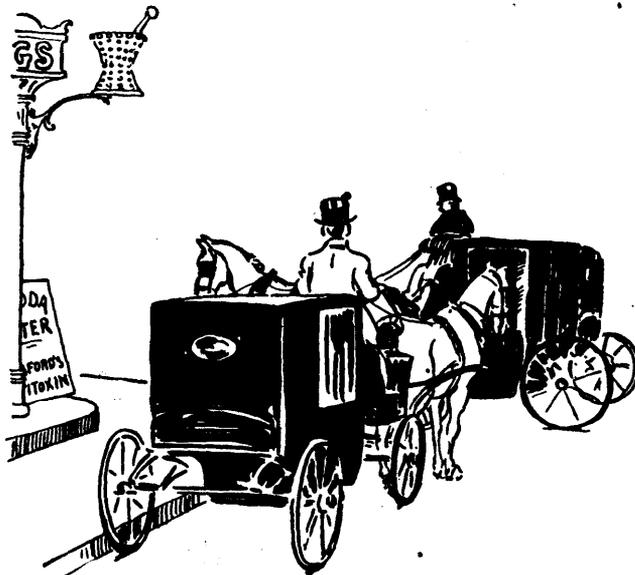
Salicylic Collodion. Corn Cure.

Extract of Indian hemp 1
Salicylic acid 10
Turpentine 5
Dissolve by shaking in
Collodion.... .. .82

When dissolved add

Glacial acetic acid 2
Venice of turpentine and not oil of turpentine, is intended.

We make the Trade for Druggists.



We have initiated a system of advertising whereby our druggist customers who are handling Mulford's Concentrated Diphtheria Antitoxin, are advertised free of charge to the physicians in their territory.

Druggists have found it highly profitable to them because it has gained the favor, and in a large majority of cases, the prescription trade, of the representative physicians

Now is the time to prepare for the Winter trade. Let us obtain it for you.

Our terms are liberal, and we guarantee absolute protection against any loss, through our system of exchanging old stock at the end of six months for fresh serum.

CHICAGO.

H. K. MULFORD & CO.,

PHILADELPHIA.

Kindly mention this Journal when writing to Advertisers.

Roach Food.

Powd. borax.....	50 parts
Starch	10 "
Cocoa.....	5 "

The following formulae are taken from the Formulary of the German Apotheker Verein. All ingredients must be taken by weight:

Lanolimentum Leniens.

Woolfat-Cream.

Spermaceti.....	20
Yellow vaseline.....	60
Melt, and when half cold add	
Woolfat.....	80
Water	100
Mix, and to each 50 grammes add one drop of otto of rose.— <i>Chemist and Druggist.</i>	

Gelatina Glycerinata cum zinco.

Zinc Paste.

Finest white gelatine.....	15
Water	35
Macerate until the gelatine is soft, then add	
Glycerine.....	25
Heat on a water-bath until the gelatine is dissolved, and to the solution add carefully, stirring all the time, a mixture of:	
Zinc oxide.....	10
Glycerine	15
Then add water sufficient to make the whole weigh 100 parts. For the soft paste use 10 parts of gelatine.	

Aqua Cosmetica Kummerfeldi.

Kummerfeld's Toilet Water.

Camphor, finely powdered	1
Gum arabic, finely powdered	2
Milk of sulphur.....	12
Mix and rub with—	
Rose water	40
Then add	
Lime water	45
Shake well, also shake before use.	

Aqua Dentifrica Bototi.

Botot's Dentifrice.

Cloves in coarse powder	30
Cinnamon in coarse powder.....	30
Anise in coarse powder	30
Cochineal in coarse powder.....	20
Rectified spirit.....	2,000
Macerate for a week, shaking occasionally, filter, and in the filtrate dissolve—	
Oil of peppermint	15

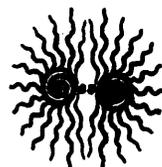
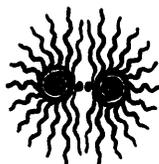
Aqua Dentifrica Antiseptica.

Antiseptic Mouth-Wash or Dentifrice.

Thymol	1
Rectified spirit	100
Glycerine	10
Chloroform	5
Oil of peppermint.....	1
Oil of eucalyptus	1½
Oil of lemon	2
Mix to form a clear and colorless solution.	

Toilet Papers

The only manufacturers in Canada operating a Paper Mill devoted exclusively to Tissue Papers---consequently sheets of uniform weight and quality and even surface can be relied upon.



The **E. B. Eddy Co'y**, Limited

HULL

MONTREAL

TORONTO

Charta Antiasthmatica.

Asthma-Paper.

Potassium nitrate	17
Extract of stramonium.....	10
Sugar.....	20
Hot water	100

Dissolve the solids in the hot water, and in the solution saturate white filter-paper, which dry.

Aqua Dentifrica Cum Salolo.

Salol Dentifrice.

Salol	2.5 grammes
Rectified spirit .....	.97 grammes
Oil of peppermint .....	.50 centigram
Oil of cloves	4 centigram
Oil of caraway	4 centigram
Saccharin.....	4 millegram

Mix to form a clear solution.

Books and Pamphlets.

On the 8th day of October more than 10,000 students were on the rolls as members of the first Freshman class of the Cosmopolitan University. The confusion into which the plans regarding the Cosmopolitan's educational work were thrown by the retirement of President Andrews, in order to meet the urgent wishes of his friends at Brown University, has been met by the acceptance of the presidency by Dr. Eliphalet N. Potter. President Potter has been at the head of two great colleges for nearly twenty-five years, and brings to the work exceptional talents as an organizer and man of broad culture and common-sense ideas. He is already at Irvington engaged in organizing his staff of professors. The work of the University has been grouped under fifteen heads, covering the various branches of knowledge. Each of these will be in charge of a professor. As soon as the task of selection is complete, the students will be assigned their work, and the largest Freshman class in the history of the universities of the world will begin its studies.

The extraordinary dimensions of the class thus formed has opened the eyes of the public to the importance of the gap in educational facilities which the Cosmopolitan has undertaken to fill. Knowing that the appropriation made by the Cosmopolitan is a limited one and that the entries are far beyond the most sanguine expectations, embarrassing the work by their proportions, many professors and other prominent men have already made the offer of advice and assistance without pay.

Verzeichniss Sammtlicher Praeparate, Drogen, und Mineralien mit Erlauterungen. 1897. E. Merck, Darmstadt.

This is a complete catalogue of the chemical and galenic preparations of E. Merck, brought up to date. It is, without doubt, the most complete and correct work of its kind, containing not only the

names, but also the therapeutical action, dose, and solubility of each article mentioned. We presume that the English edition will shortly be ready.

From the Inland Revenue Department:

Bulletin No. 47—Honey.
“ “ 48—Ground ginger.
“ “ 49—Fertilizers.
“ “ 50—Commercial mustard.

PROPRIETARY MEDICINAL PREPARATIONS are apparently a necessary evil of the drug trade, but there is no reason why chemists and druggists should make that evil worse. They ought studiously to refrain from exhibiting, recommending, or even mentioning, such preparations in their pharmacies, and it is a matter for serious consideration whether they ought not to cease to stock them. At any rate they should religiously keep them out of sight, and take advantage of any legitimate means that may be available for discouraging their sale. The mischief that has resulted from making a large number of British pharmacies agencies for pushing the sale of these abominations in the past is only too palpable to-day, and with the almost total loss of the profit accruing from an unclean branch of trade, there ought to be no difference of opinion amongst reasonable men of the undesirability of further encouraging that branch. The heroic attempts of the P.A.T.A. to preserve the final remnant of profit in that direction from slipping away is commendable in its way, and the pseudo-philanthropic efforts of Mr. Thomas Beecham and other proprietors are doubtless deserving of some slight degree of credit, but the only proper course now open to conscientious chemists who, for the present, feel unable entirely to cease to stock proprietary medicines, is to insist on all such preparations being sold at the face value fixed by the proprietors.—*Pharm. Jour.*

FOR SALE.

Business in a thriving town offered for sale; enquiry will show it to be satisfactory. Apply, care of Elliot & Co., Toronto.

TO LET.

In the rising town of Collingwood, and in the best business street, and on the best business side of street, a drug store, with two large plate-glass windows, and store fitted up elegantly inside; rent low. Apply to I. Greaves, 56 Melbourne ave., Toronto, or to A. W. S. Cunningham, Collingwood.

SITUATION WANTED.

Apprentice—three years' experience; wishes engagement to complete apprenticeship term; state salary. G. Donaghy, Glenboro', Man.

Don't forget that all assistants wanting situations, and all employees requiring assistants can have the use of our columns free.

Market Report.

Oct. 18.—Galisaya bark advanced another 20s at Amsterdam sales. Bark is not sold now by actual weight, but by the assayed percentage of alkaloids it contains, at so much per unit. Opium is steadily rising in New York, and is also dearer in primary markets; no change on the spot as yet. Golden seal root is extremely scarce, and has more than doubled in price.

Senega and serpentaria are also dearer. Norwegian cod liver oil is doing better, and is expected to be higher. Cream tartar is steady, with variations as to percentage. Irish moss, higher; the gathering was small. Buchu is firm, and Tinnelly senna is in short supply. Morphia and mercurials are unchanged. Castor oil firm, and in small supply. Cardamons maintain the advance. Borax and boracic acid remain remarkably low. Glycerine, steady, demand increasing. Carbolic acid easier for forward delivery. Phenacetin makers are about tired of selling under cost, and higher prices are expected. Prices of spices are well maintained. Sulphonal is the subject of keen competition between rival makers, who wish to demonstrate without regard to profit, that theirs is the best article; doubtless both will succeed if they keep it up.

Latest cables are: London, Norway oil, rather better; ipecac, firm; bark sale, 20s. advance; quinine, 15d.; cinchonidia, 8d.; Kobe, Japan, menthol 93 pence.

Spirits turpentine has an easier tone. Linseed oil unchanged. White lead quite firm.

Oct. 28.—The improvement in trade continues, and though the changes in price are not numerous or important, they are mostly in the direction of an advance. Quinine is for the time being rather quiet, but it is firmly held. There are but two cinchona bark sales to be held this year, and if the prices last paid in London and Amsterdam are realized, there must be another advance in quinine. Bark has advanced fully 100 per cent. this year, while quinine has only advanced 50 per cent. The bark shipments show a large decline. This, however, may be caused by increased home consumption in the Java factory and the East India Government laboratories, which through the postoffice, distribute their product in packages, sold for 1 pice. Opium is in better demand, and shows higher rates. Carbolic acid is costing more. Buchu leaves hardly hold the advance; seal root is almost out of the market, very high prices being paid for what little is offering. Sassafras bark, burdock, calumba, dandelion, Jamaica sarsaparilla, jaborandi and ipecac roots are all lower. Castor oil continues scarce and dear. Cod liver oil is in better demand than is usual at this time of the year. Oil cajeput and gum gamboge are up. Balsam copaiba is firmly held. Peppermint and lemon oils are very low. Borax and boracic acid continue depressed. Spices generally are considered good stock. White lead firm. Spirits turpentine show small sales.

SETS OF STAMPS FOR SALE.



15 Canada revenues, 10c.; 8 Samoa, 12c.; 5 Newfoundland, 10c.; Labuan Jubilee, 10c.; 14 Roman States, 15c.; 10 Japanese, 8c.; 50 different stamps, 10c.; 100 different stamps, 20c.; 3 Corea, 10c.; 6 South Africa, 10c.; 23 Canada, 15c. All kinds Canada Jubilee stamps bought, also collections, etc.

WM. R. ADAMS, 7 Ann St.,
TORONTO, ONT.



This very popular Dentifrice has a reputation of many years and is now sold by the Wholesale Trade of Canada at \$1.75 per doz.

Telephone 2476.

WM. ANGUS, Manager.
Late of the Royal Pulp & Paper Co.

AULD MUCILAGE CO.

Manufacturers of the Celebrated **Premium Mucilage.**

LITHOGRAM COMPOSITION,
Lithograms Ready for Use.

Printers' Premium Roller Composition.

Please send for quotations.

759 Craig St., - - MONTREAL, P.Q.

Dr. Agnew's Remedies.

FOUR SPLENDID SELLERS.

There are few better selling remedies, and none which give more perfect satisfaction than the preparations known as

Dr. Agnew's Cure for the Heart.

Dr. Agnew's Catarrhal Powder.

Dr. Agnew's Liver Pills.

Dr. Agnew's Ointment.

If you haven't them in stock procure a supply from your wholesaler. They yield a liberal profit, and can be recommended with confidence.

THE **Lyman Bros. & Co.** LIMITED

TORONTO, - - ONTARIO.

—HEADQUARTERS FOR—

Kutnow's Salts

Kutnow's Asthma Powder

Kutnow's Asthma Cigarettes

Mulford's Antitoxine

Welch's Grape Juice

West's Liver Pills.



SOME ARRIVALS DURING THE MONTH:

Ammonia Iodide	Cocaine Mur.	Ceracine Wax	Acid Pyrogallic
Codeia Crystals	Chloral Hydrate	Extract Logwood	Glycoline
Menthol Crystals	Opium	Oil Bergamot	Oil Aniseed
Pyrozone, 3%, 5% and 25%	Phenacetine	Sulfonal	Salol
			Saffron

Wrigley's Rug Gum	Hyomei	Tarrant's Aperient
" Show Case Gum	Floraplexion	" Extract
" Saw Gum	Modene	Piso's Cure
O'Keefe's, Pabst and Wyeth's Malt	Quickcure	Stearns' Tritipalm
Syrup Figs, California	Stearns' Hematic	Hypophosphites
	Park's Emulsion of Cod Liver Oil.	

Batchelor's Hair Dye	Fehr's Talcum Powder
Odontine Fluid	Mennen's " "
Wild Rose Balm	Imperial " "
Van's Mexican Cactus Hair Food	Derma Royal Soap
Woodbury's Facial Cream	Cura Derma Soap
" " Soap	Carnot's Dentifrice

LOOK UP YOUR STOCK OF FREEZABLE GOODS SUCH AS

Bromo Chloralum	Big G Injection Brou	Horsford's Acid Phosphates	Hair Dyes
Hagan's Balm	Laird's Bloom	Pinkham's Comp.	
Malt Extracts	Hydroleine	Mineral Waters	Pond's Extract

—also—

LYMAN'S FLUID MAGNESIA.

Kindly mention this Journal when writing to Advertisers.

PRICES CURRENT.

CORRECTED TO NOVEMBER, 1897.

The quotations appended represent average prices in the Toronto and Montreal Markets, 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.

Acetanilid,	lb.	\$0 70	\$0 75
Acid, Acetic,	lb.	10	13
Arsenious, lump	lb.	25	27
Commercial	lb.	10	10
Benzoic, English, (from benzoin)	oz.	22	25
German,	oz.	9	12
Boric	lb.	11	12
Carbolic, Crystals, super,...	lb.	28	2 25
Commercial,	lb.	1 25	30
Crude	gal.	75	1 60
Citric,	lb.	50	55
Gallic,	lb.	90	1 00
Hydrodromic	lb.	30	32
Hydrocyanic,	oz.	12	14
Lactic, concentrated,...	lb.	1 10	1 15
Muriatic,	lb.	3 1/2	5
chem. pure,	lb.	18	20
Nitric,	lb.	10	14
chem. pure,	lb.	25	27
Oxalic,	lb.	12	13
Phosphoric, syrupy,	lb.	50	60
dilute,	lb.	17	20
Salicylic,	lb.	65	70
Sulphuric,	lb.	2	5 b.
chem. pure,	lb.	16	22
Aromatic,	lb.	50	55
Tannic,	lb.	70	80
Tartaric, powdered,	lb.	40	45
Alcohol, pure, 65o. p. by bbl., cash	gal.	4 52	00
by gal.	gal.	4 90	5 00
Methylated	gal.	2 00	00
Allspice,	lb.	13	15
Powdered	lb.	15	20
Aloin,	oz.	25	30
Alum,	lb.	2 1/2	3
Ammonia, Liquor, 88o,	lb.	10	12
Aromatic Spirits,	lb.	52	55
Bromide,	lb.	80	85
Carbonate,	lb.	12	14
Chloride, powd.	lb.	10	13
Chloride, pure, powd.	lb.	35	46
Iodide,	lb.	5 75	6 00
Nitrate,	lb.	35	40
oz.	oz.	15	20
Amyl Nitrite,	oz.	1 10	1 20
Antipyrine,	lb.	10	13
Antimony, black, powdered,	lb.	45	48
and potas, tart,	lb.	30	35
Liver	gr.	4	5
Apomorphia,	lb.	35	40
Arrowroot, Bermuda,	lb.	14	15
Jamaica,	oz.	1 85	2 00
Aristol,	lb.	22	25
Arsenic, Donovan's solution,	lb.	7	8
Fowler's solution,	lb.	10	10
White,	gr.	2 1/2	60
Atropine Sulphate,	lb.	40	50
Balsam, Canada,	lb.	70	75
Copaiba	lb.	3 00	3 20
Peru,	lb.	90	95
Tolu,	lb.	15	18
Bark, Bayberry, powdered	lb.	15	18
Canella Alba,	lb.	15	18
Cassia,	lb.	15	20
ground	lb.	18	28
Cascara,	lb.	20	22
Cinchona, Red,	lb.	50	60
powdered,	lb.	60	70

DO YOU CARRY

ODOROMA In Stock?

IF NOT, WHY NOT?

ODOROMA

The Perfect Tooth Powder

Has captured the market wherever it has been introduced. If it is a new thing to you, here are a few reasons why you should handle it:
It is cleansing, antiseptic, fragrant, refreshing.
It is perfectly harmless.
It has been analyzed by the most expert chemists, who have all reported in the most favorable terms.
It sells at a glance in the first instance, and on its reputation thereafter.
It yields more profit to the retailer, and to the consumer a greater quantity of the best quality, than any other tooth powder in the world.

REPORT OF EXPERT ANALYSIS.

"Having analyzed and tested 'Odorama,' I find it to be composed of ingredients well known to the dental and medical profession as being the best for cleansing and preserving the teeth. It contains nothing that could in any way be deleterious in its action, and it has my unqualified approval."—W. T. STUART, M.D., C.M., *Professor of Chemistry, Trinity Medical School; Professor of Chemistry, School of Dentistry.*

Order from your Wholesale House.

AROMA CHEMICAL CO., - Toronto

TURKISH DYES
TURKISH DYES
TURKISH DYES

TO THE TRADE

We desire to call the attention of the trade to the above package dyes, which have been on the market for the past nine years. The sales have increased wonderfully in that period, and they have given every satisfaction, both to the retailer and consumer. Every LIVE DRUGGIST handles Turkish Dyes.

Write for Prices, Samples, &c., to

BRAYLEY SONS & COMPANY

MONTREAL

Bark, Calisaya, yellow,	lb.	40	50
pale,	lb.	35	50
powdered,	lb.	40	50
Elm, selected,	lb.	20	22
ground	lb.	18	22
flour, packets,	lb.	28	30
Prickly Ash,	lb.	15	17
Sassafras,	lb.	15	16
Soap Tree, cut,	lb.	13	15
" grd.	lb.	18	20
Wild Cherry,	lb.	10	12
Bean, Calabar,	lb.	45	50
Tonka,	lb.	1 00	2 75
Vanilla,	lb.	11 50	15 00
Berry, Cubeb,	lb.	0 25	0 30
powdered,	lb.	0 30	0 35
Juniper,	lb.	6	8
Bismuth, Sub-carbonate,	lb.	2 00	2 10
Ammonio-Citrate	oz.	40	44
Iodide	oz.	50	60
Salicylate	oz.	20	25
Sub-Nitrate,	lb.	1 75	1 85
Liquor,	lb.	35	40
Borax,	lb.	6	7
powdered,	lb.	7	8
Butter, Cacao,	lb.	65	80
Caffeine,	oz.	55	65
Citrate,	oz.	40	45
Camphor, English,	lb.	55	65
American,	lb.	55	65
Cantharides,	lb.	1 50	1 60
powdered,	lb.	1 65	1 75
Capsicum,	lb.	22	25
powdered,	lb.	25	30
Carbon, Bisulphide,	lb.	16	20
Cerium Oxalate,	lb.	1 50	1 65
Chalk, French, powdered,	lb.	6	10
Precipitated,	lb.	10	12
Prepared,	lb.	5	6
Chloroform, pure,	lb.	1 10	1 20
D. & F.	lb.	1 00	2 00
German,	lb.	60	65
Chloral hydrate,	lb.	1 20	1 25
Cinchonine, Muriate,	oz.	15	20
Sulphate,	oz.	20	25
Cinchonidia, Sulphate,	oz.	25	27
Cloves,	lb.	15	17
powdered,	lb.	35	40
Cocaine, Mur.	oz.	3 50	4 00
Cochineal, S. G.,	lb.	40	45
Black,	lb.	42	45
Codeine,	oz.	4 50	4 75
Collodion,	lb.	75	80
Confection, Senna,	lb.	35	40
Copper, Sulphate,	lb.	5 1/2	6
Copperas,	lb.	90	00
Cotton, absorbent,	lb.	32	70
Cream Tartar, powdered,	lb.	25	28
Croton Chloral,	oz.	50	56
Creolin,	lb.	50	60
Creosote, Wood,	lb.	1 00	2 30
Cudbear,	lb.	18	20
Cuttle-fish Bone,	lb.	20	30
Epsom Salts, see MAGNESIUM SULPH.			
Ergot,	lb.	40	50
Ether, Acetic,	lb.	75	80
Nitrous, Spirits,	lb.	35	65
Sulphuric, 725,	lb.	35	75
Eucalyptol,	oz.	16	20
Exalgine,	oz.	1 20	1 25
Extract Belladonna,	lb.	1 20	2 00
Colocynth, Co,	lb.	2 00	2 25
Gentian,	lb.	50	56
Hemlock, Ang.	lb.	1 25	1 50
Henbane, "	lb.	3 50	3 75
Jalap,	lb.	2 50	3 00
Logwood, bulk,	lb.	13	14
packages,	lb.	15	18
Mandrake,	lb.	1 75	2 00
Nux Vom.	oz.	30	35
Opium,	oz.	85	90
Rhubarb,	lb.	4 00	5 00
Sarsa. Hond. Co.,	lb.	1 00	1 20

"SEELY'S"

Holiday Line of Perfumes is as always
"Incomparable."

Sold to Druggists only.



INCENSE BURNER.

We would appreciate your
Christmas order.

Should our representatives
not call regularly, please
notify us that we may
arrange to see you.

Seely Mfg. Co.,

DETROIT Mich.

WINDSOR, Ont.

BOVRIL

Is a fluid Beef prepared from the choicest cattle
raised in the Argentine Republic and Australia.

BOVRIL

Contains both the stimulating and nutritious
properties of beef, and will sustain life without
the aid of other nutritious food.

BOVRIL

Is suitable to all, from the Infant to the Athlete,
and can be retained and relished by invalids
when all other food is rejected.

Sold by all first-class Druggists and Grocers,
throughout the Dominion.



BOVRIL, Limited

30 Farringdon Street, LONDON, ENG.

Canadian Branch: 27 St. Peter St., MONTREAL

Extract Sarsa. Jam. Co.,	.. .. .	lb.	3 00	3 20
Taraxacum, Ang.,	.. .. .	lb.	70	80
Flowers, Arnica,	.. .. .	lb.	20	22
Chamomile	.. .. .	lb.	20	25
Lavender,	.. .. .	lb.	13	15
Formalin,	.. .. .	lb.	75	80
Fuller's Earth, powd.,	.. .. .	lb.	5	6
Galls,	.. .. .	lb.	21	25
powdered,	.. .. .	lb.	23	25
Gelatine, Cox's 6d.,	.. .. .	doz.	1 20	1 25
French,	.. .. .	lb.	45	60
Glycerine, 30°,	.. .. .	tin or lb.	20	22
Price's,	.. .. .	lb.	70	75
Grains Paradise, powd.	.. .. .	lb.	25	30
Green, Paris,	.. .. .	lb.	14½	18
Gum, Aloes, Barb,	.. .. .	lb.	25	40
Aloes, Cape,	.. .. .	lb.	18	20
powdered,	.. .. .	lb.	27	30
Socot,	.. .. .	lb.	45	48
powdered,	.. .. .	lb.	70	75
Arabic, select,	.. .. .	lb.	40	60
" powdered,	.. .. .	lb.	0 60	90
sorts,	.. .. .	lb.	25	30
powdered,	.. .. .	lb.	40	50
Asafoetida,	.. .. .	lb.	40	45
Benzoin,	.. .. .	lb.	30	1 00
Catechu,	.. .. .	lb.	17	18
powdered,	.. .. .	lb.	22	25
Gamboge,	.. .. .	lb.	1 00	1 20
Guaiaicum,	.. .. .	lb.	40	1 00
Myrrh,	.. .. .	lb.	40	45
Opium,	.. .. .	lb.	4 75	5 00
powdered,	.. .. .	lb.	6 00	6 25
Scammony, powdered,	.. .. .	lb.	6 00	7 00
Shellac, orange,	.. .. .	lb.	30	38
bleached	.. .. .	lb.	45	50
Storax,	.. .. .	lb.	40	50
Tragacanth, flake,	.. .. .	lb.	85	1 00
common,	.. .. .	lb.	65	75
Herb, Chiretta,	.. .. .	lb.	45	50
Goldthread, in ozs.	.. .. .	lb.	75	90
Horehornd, in ozs.	.. .. .	lb.	18	20
Lobelia,	.. .. .	lb.	18	20
Honey, Canada, best,	.. .. .	lb.	11	13
Hops,	.. .. .	lb.	15	22
Hydrogen Peroxide, C.P., Harvey's, No. 1, doz.	.. .. .		8 00	
Ichthyol,	.. .. .	oz.	35	45
Indigo, Madras,	.. .. .	lb.	75	80
Insect Powder, pure	.. .. .	lb.	37	40
Iodine, commercial,	.. .. .	lb.	3 75	4 00
Resublimed	.. .. .	lb.	5 00	5 25
Iodol,	.. .. .	oz.	1 40	1 50
Iron, Carbonate, Precipitated,	.. .. .	lb.	13	14
Saccharated,	.. .. .	lb.	35	40
Chloride, solution, B. P.,	.. .. .	lb.	15	18
Citrate and Ammonium,	.. .. .	lb.	65	75
and Quinine, 4 per cent.,	.. .. .	oz.	12	16
" " 10 per cent.,	.. .. .	oz.	14	20
" " 25 per cent.,	.. .. .	oz.	17	25
" Quinine and Strychnine,	.. .. .	oz.	21	00
and Strychnine,	.. .. .	oz.	15	00
Dialyzed, solution,	.. .. .	lb.	50	60
Iodide, Syrup,	.. .. .	lb.	40	45
Pyrophosphate,	.. .. .	lb.	1 00	1 20
Sulphate, pure,	.. .. .	lb.	7	8
Iodoform,	.. .. .	lb.	5 25	5 50
Jalapin,	.. .. .	oz.	65	70
Japonica,	.. .. .	lb.	8	9
Lanoline,	.. .. .	lb.	0 85	1 00
Lead, Acetate, white,	.. .. .	lb.	12	15
Iodide	.. .. .	oz.	30	35
Sub-Acetate, sol.	.. .. .	lb.	10	12
Leaf, Belladonna,	.. .. .	lb.	25	30
Buchu,	.. .. .	lb.	20	25
Coca,	.. .. .	lb.	40	60
Digitalis,	.. .. .	lb.	15	22
Eucalyptus,	.. .. .	lb.	18	20
Hyoscyamus,	.. .. .	lb.	20	28
Jaborandi,	lb.	50	56
Matico,	lb.	75	80
Senna Tinnevely,	lb.	15	25
" India,	lb.	13	17
Stramonium,	lb.	25	30

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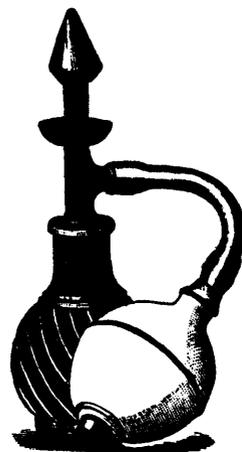
Note the hard rubber cup situated immediately below the point.

This novel attachment prevents the oil from coming in contact with the soft rubber parts or the hand of the user.

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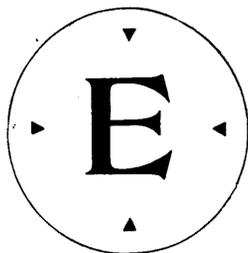
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JOHN G. HARVEY,
TODMORDEN, ONT.

Leaf, Uva Ursi,	lb.	12	17
Leeches,	dz.	1 00	1 60
Leptandrin,	oz.	50	10
Lime, Chloride,	lb.	3 1/2	5
packages,	lb.	6	7
Hypophosphite	lb.	1 40	1 50
Phosphate,	lb.	35	38
Sulphite,	lb.	9 1/2	10
Liquorice, Solazzi,	lb.	45	50
Pignatelli,	lb.	35	38
Y. & S. Pellets,	lb.	40	00
" Stick,	lb.	35	00
Other Brands,	lb.	14	35
Lithium, Bromide	oz.	40	44
Carbonate,	oz.	28	30
Citrate	oz.	25	00
Salicylate	oz.	35	40
Lye, concentrated,	dz.	75	95
Madder, best Dutch,	lb.	12 1/2	14
Magnesia, Carb 1 oz... .. .	lb.	16	18
Calcined,	lb.	50	55
Citrate, gran.,	lb.	40	75
Sulphate,	100 lbs.	1 75	
Manganese, black oxide,	lb.	4 1/2	6
Manna,	lb.	85	1 00
Menthol,	lb.	4 00	4 50
Mercury,	lb.	75	90
Ammoniated,	lb.	1 30	1 40
Bichlor,	lb.	80	90
Biniodide,	lb.	4 00	4 60
Bisulphate,	lb.	1 10	1 15
Chloride,	lb.	90	95
c. Chalk,	lb.	60	65
Nitric Oxide,	lb.	95	1 10
Oleate,	lb.	65	90
Oxide, yellow,	lb.	1 60	1 70
Milk Sugar,	lb.	25	35
Morphia Acet,	oz.	1 75	2 00
Mur,	oz.	1 75	2 00
Sulph,	oz.	1 80	2 00
Moss, Iceland,	lb.	12	13
Irish,	lb.	10	11
Musk, Tonquin, true,	oz.	46 00	48 00
Canton,	oz.	60	70
Naphtha, Wood	pt.	85	90
Napthol, Beta,	oz.	10	12
Nutmegs,	lb.	90	1 00
Nux Vomica,	lb.	8	10
powdered,	lb.	25	27
Oil, Almond, Bitter,	oz.	45	80
Sweet,	lb.	35	40
Amber, rectified,	lb.	75	80
Anise,	lb.	3 00	3 25
Bergamot,	lb.	3 00	3 25
Caraway,	lb.	3 50	4 00
Cassia,	lb.	2 75	3 00
Castor,	lb.	12	14
Cedar,	lb.	50	90
Citronella,	lb.	1 10	1 25
Cloves,	lb.	1 00	1 10
Cod-liver, N. F.... .. .	gal.	1 00	1 10
Norwegian,	gal.	1 40	1 60
Cotton Seed,	gal.	80	1 00
Croton,	lb.	1 50	1 60
Cubeb,	lb.	2 20	2 25
Eucalyptus,	lb.	1 25	1 60
Geranium, India,	lb.	3 15	3 20
Hemlock,	lb.	75	80
Juniper wood,	lb.	65	70
Lavender, English,	oz.	2 25	3 00
French, pure,	lb.	3 50	4 00
Garden,	lb.	1 5c	3 50
Lemon,	lb.	1 75	2 00
Lemon Grass,	lb.	1 50	1 60
Linseed, Boiled,	9 lb., gal.	61	64
Raw,	gal.	58	61
Male Fern	lb.	2 00	2 50
Neatsfoot,	gal.	1 00	1 10
Neroli, Bigarade.. .. .	oz.	4 25	4 50
Olive, common,	gal.	1 20	1 25
Salad,	gal.	2 40	2 50
Orange,	lb.	2 00	2 75
Origanum,	lb.	65	85

Oil, Pennyroyal,	lb	1	25	1	35	Root, fine trimmed	lb.	2	50	4	50
Peppermint, English,	lb.	16	00	16	50	powdered,	lb.	1	00	2	50
American,	lb.	2	00	2	25	Sarsaparilla, Honduras,	lb.	40	45		
Pinus Sylvestris,	oz.	10	12			Jamaica,	lb.	60	65		
Rose, Kissanlik,	oz.	9	60	10	00	Sarsaparilla, Mexican,	lb.	16	18		
good,	oz.	7	50	8	00	Senega,	lb.	60	65		
Rosemary,	lb.	70	75			Squill, white,	lb.	10	12		
Sandalwood,	lb.	5	50	7	50	Valerian, English,	lb.	18	20		
Sassafras,	lb.	70	80			Salol,	lb.	1	50	1	75
Seal, pale,	gal.	55	60			Sal Soda,	lb.	2	2	2	1
Sperm, Winter Bleached,	gal.	1	20	1	25	by bbl.	lb.	1	1	1	1
Tansy,	lb.	4	25	4	50	Epsom, by bbl.	100 lb.	1	75	2	00
Union Salad,	gal.	1	00	1	10	Salicin,	lb.	3	00	3	25
Wintergreen,	lb.	2	00	2	25	Santonin,	lb.	3	00	3	25
Ointment, Mercurial,	lb.	70	75			Seed, Anise, Italian,	lb.	13	14		
Citrine,	lb.	45	50			Star,	lb.	35	38		
Opium.—SEE GUM.						Canary, Sicily,	lb.	3	1	4	1
Orange Peel,	lb.	16	70			Caraway,	lb.	12	15		
Pepsin, Morson's,	oz.	85	90			Cardamon, Malabar,	lb.	1	00	1	20
Saccharated,	lb.	2	50	6	00	decorticated,	lb.	1	50	2	00
Pepper, Black,	lb.	12	14			Celery,	lb.	20	25		
powdered,	lb.	12	15			Colchicum, German,	lb.	25	30		
White powdered,	lb.	22	25			Coriander,	lb.	10	12		
Pill, Blue, Mass,	lb.	70	80			Flax, cleaned, Ontario,	100 lbs.	25	3	75	
Pilocarpine, Nitrate,	gr.	10	12			pure ground	lb.	3	1	4	1
Pitch, Black,	bbl.	3	50	3	75	Fenugreek, powdered,	lb.	6	8		
Burgundy,	lb.	13	15			Hemp,	lb.	4	4	1	1
Phenacetine,	oz.	40	45			Mustard, white,	lb.	7	8		
Phosphorus,	lb.	90	1	00		powdered,	lb.	20	50		
Podophyllin,	oz.	40	45			Rape,	lb.	6	7		
Poppy Heads,	100	75	90			Saffron, American,	lb.	50	55		
Potassa, Caustic, white sticks,	lb.	65	70			Spanish,	oz.	1	25	1	25
Liquor,	lb.	10	12			Sage, ozs.	lb.	18	20		
Potassium, Acetate,—granulated	lb.	28	30			Silver, Nitrate,	cash, lb.	6	50	9	00
Bicarbonate,	lb.	17	20			Soap, Castile, mottled,	lb.	10	12		
Bichromate,	lb.	14	15			White,	lb.	8	16		
Bitartrate (Cream Tartar),	lb.	27	29			Soda, Ash,	keg or cask.	2	2	1	1
Bromide,	lb.	70	75			Caustic,	drum or lb.	3	1	5	1
Carbonate,	lb.	13	15			Sodium, Acetate,	lb.	25	30		
Chlorate,	lb.	15	18			Bicarb. Howard's,	lb.	16	17		
Cyanide, Fused,	lb.	35	45			Newcastle,	keg.	2	75	2	75
Iodide,	lb.	3	50	3	75	Carbonate, crystal,	lb.	1	1	3	1
Nitrate,	lb.	7	1	1	1	Hyposulphite,	lb.	4	6		
Permanganate,	lb.	40	45			Salicylate,	lb.	75	90		
Prussiate, Red, powdered,	lb.	50	55			Sulphate, Glauber's salt	lb.	1	1	3	1
Yellow,	lb.	30	32			Sponges, Grass	lb.	55	55		
and Sodium Tartrate (Rochelle	lb.	29	30			Reef	lb.	1	50	1	75
Salt)	lb.	29	30			Slate,	lb.	1	00	1	10
Sulphure	lb.	25	27			Sheepswool,	lb.	2	00	2	40
Quassia,	lb.	10	12			Bath, loose, common	lb.	1	75	2	50
Quinine, Howard's,	oz.	42	45			Bath, fine qual.,	100	10	00	40	00
German,	oz.	39	44			Surgeon's	string	1	50	2	50
Resorcin,	oz.	18	20			Turkey	string	3	00	10	00
Rosin, strained,	bbl.	3	25	4	25	Turkey, Cup, fine	each	0	50	1	00
Clear, pale,	bbl.	4	02	4	75	Strychnine, crystals	oz.	0	80	1	10
Root, Aconite,	bulk, lb.	20	22			Sulphonal,	oz.	27	30		
Blood, powdered,	lb.	13	15			Sulphur precipitated,	lb.	13	20		
Cohosh, Black,	lb.	15	16			sublimed,	lb.	3	4		
Colchicum, German,	lb.	40	45			roll,	lb.	2	1	3	1
Columbo,	lb.	18	20			Tin, Murite, crystals,	lb.	25	28		
powdered,	lb.	25	30			foil,	lb.	30	32		
Curcuma, ground,	lb.	13	15			Tamarinds,	lb.	13	15		
Elecampane,	lb.	12	13			Tar,	bbl.	3	25	3	50
powdered,	lb.	15	17			Barbadoes,	lb.	15	16		
Gentian,	lb.	12	13			Terebene,	lb.	60	65		
ground,	lb.	13	14			Turpentine, Spirits,	gal.	50	55		
powdered,	lb.	14	15			Chian,	oz.	70	75		
Ginger, E. I.	lb.	15	18			Venice,	lb.	12	13		
powdered,	lb.	16	20			Veratria	oz.	2	25	2	50
Jamaica,	lb.	24	30			Verdigris,	lb.	30	35		
powdered,	lb.	28	30			Wax, White, pure,	lb.	55	75		
Golden Seal, powdered,	lb.	65	70			Yellow,	lb.	40	45		
Hellebore, White, powdered,	lb.	13	15			Woods, Camwood,	lb.	8	10		
Ipecac,	lb.	2	25	2	50	Fustic, Cuban,	lb.	2	3		
powdered,	lb.	2	50	2	75	Logwood, Campeachy,	lb.	2	3		
Jalap, powdered,	lb.	45	50			Quassia,	lb.	10	12	1	1
Licorice, select,	lb.	12	23			Redwood,	lb.	3	1	5	1
powdered,	lb.	10	12			Zinc, Chloride,	oz.	10	15		
Mandrake,	lb.	13	16			Oxide,	lb.	13	60		
Orris, Florentine	lb.	25	30			Sulphate, pure,	lb.	9	12		
powdered,	lb.	30	35			common,	lb.	6	9		
Pink,	lb.	40	45			Valerianate,	oz.	25	28		
Rhubarb, E.I.	lb.	60	70			Sulphocarbolate,	lb.	1	00	1	10

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Suppose some one of your family was ill, so ill that the services of a physician were required. Suppose the physician suggested the use of Fluid Extract of Ergot; would you supply any but that which has been proven to be reliable beyond a peradventure? Suppose that even so common a drug as quinine was prescribed; would you use any kind that happened to be handy? Don't you know that the quality and known reputation of the maker would demand your earnest consideration? In either case, if you were perfectly satisfied that the drug was reliable, would you not administer these with more confidence than if there was some doubt?

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