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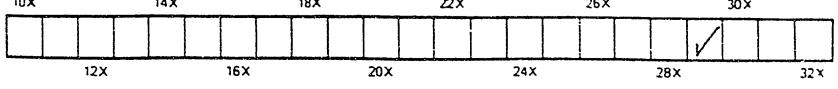
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# Canadian Druggist

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

Vol. X.

TORONTO, DECEMBER, 1898.

No. 12

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### Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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

The CANADIAN DROGOUST is issued on the 15th of each month, and all matter for insertion should reach us by the 5th of the month. New advertisements or changes to be addressed

Canadian Druggist,

TRADERS' BANK CHAMIFES GI VONGE STRENT,

TORONTO, ONT.

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DRUG REFORTS.

### Give Them Your Aid.

We have endeavored to find the opinion of druggists generally in reference to the desire expressed by the commercial committee of the Council of the O.C.P. to have them yield their privilege of taking the rebate of \$2 in their annual fee, in order to apply the additional sum raised in furthering the organizing of the plan proposed by the committee, and find that upon this point alone is there any hesitation on the part of druggists, some sceming to think that if they once yield the privilege it will not again be restored. There is a very general desire on the part of the trade to see the Council take some steps to improve matters commercial and legislative if they can, but, unfortunately, when that desire has to be backed by dollars and cents, the weak-kneed ones fail to stand the test.

To those who have any fear that if they once yield the privilege of rebate it will be denied them in future, should the present proposed plan fail, we beg to express the assurance that no such thought is entertained by the Council, and that all that is asked is a fair trial of the plan which the committee has proposed. The committee undoubtedly need the sum which they have asked for in order to carry out their projected pro-There can be no definite gramme. assurance given that their plans will succeed, but they must sadly fail if they cannot return a benefit to each druggist vastly in excess of the two dollars which each one is asked to contribute. The majority of the druggists are anxious to let this committee see what it can do, and, as this is the only hope which the druggists now have of getting some active organization to labor on their behalf, we trust all will be generous enough to support it as requested.

We wish all our readers a happy and prosperous New Year.

### Ontario College of Pharmacy.

JUNIOR EXAMINATIONS.

At the recent junior examinations of the Ontario College of Pharmacy, held November 29th and December 7th to roth, inclusive, one hundred and twentythree candidates presented themselves, of which number one hundred and eight secured the desired percentages, and will be permitted to enter the senior term, which commences on January 5th, 1899.

The attendance at the junior term, just terminated, is the largest within the history of the O.C.P., one hundred and twenty-six names having been registered, including one student from Armenia.

The high standing of George A. Evans is worthy of mention, inasmuch as he ranks highest in all subjects but one, and leads the entire class, at the head of the First Class Honors List.

The official report on the results of the examination follows :

First Class Honors, in order of merit : Evans, George A., Brooks, W. R, Colpe, George G., Barton, R. J., Thomas, Philip S., Wismer, W. E., Brownlee, T. A., Coleman, W. A.

Second Class Honors, in order of merit: Meek, V. W., Lemon, F. A., Weaver, Chas., Whatmough, G., Newton, C. H. W., Morrison, P. G., Lever, John A., Skinner, R. S., Sawdon, John, (Crouch, J. H., and McIver, A. R., æq.), McDuffee, R., Dunsmoor, E. J., McFarlane, M. R., Edy, H. E., Browne, J. E., Coad, P. H., Rowan, Albert, Copeland, Clayton, (Berkell, A., and Edmunds, H. W., æq.), Roadhouse, H., Christmas, J. D., McNeilley, James, Ebbels, Ernest L., Capell, Thomas, Tweedale, T. B. S., (Tole, W. C., and Sieveright, F. W., æq.), Willoughby, L. A., Broughton, J., (Maynard, W., and Ralpt, A. J., æq.), White, J. W., (Duncan, Albert, and Webb, Frank H, æq.), Adams, C. T., (Sanderson, W. S., and Bond, E. H., æq.), Lutz, Frank H., Brown, George L.

### PASS LIST, ALPHABETICALLY ARRANGED.

Abercrombie, J. H., Archambault, Jas. A., Brown, R. H., Cairns, J. W., Cameron, W. R., Capbert, Earnest, Carroll, T. J., Cawker, E. M., Clemens, Horace A., Collier, Herb. B., Connell, Alfred, Connolly, Chas. V., Forrest, Byron, Forrest, R. O., Frost, W. A., Garrow, Frank, Hacking, C. B., Halpin, Geo. H., Hannah, R. B., Harvey, L. R., Henderson, D. T., Hogg, W. J. A., Houghton, F. L., Kelly, Jas. J., Ker, R. T. A., Langdon, J. M., Leger, Edmund, Leitch, Thos. J., Logan, A. J., Mathews, Geo. M., Miller, Alex. C., Mitchell, J. H., Mutrie, W. H., MacArthur, H., MacCrostie, J. D., Mc-Dermid, J. W., McIntyre, R., McKenzie, A. J., Potter, Ed. N., Ramshaw, C. A., Reilley, George, Ripley, Angus B., Robinson, Ben. H, Rejibian, N. H., Sanderson, H., Spiers, DeWitt, Spencer, N. St.

V., Taylor, J. D., Thomas, W., Towler, P. Brooke, Tyson, A J., Waldon, Albert H., Warren, W. A., Watson, T. G., Webb, J. Frank, Wodehouse, George A., Worts, Daniel C., Wright, L. A., Young, H. S.

### STARRED IN SUBJECTS.

Latin Posology, etc.— Yeomans, H. E., Garrow, David, Thomson, A. C., Dickson, E. A., Eldridge, H., Norman, W. H.

Pharmacy-Neilson, J. L.

Chemistry-Garrow, David.

Granted—Afgrotat with Pass Standing, one candidate—Livingstone, Wm.

### HIGHEST IN SUBJECTS.

Pharmacy-Colpe, George G., Evans, George A., Newton, C. H. W.

Latin Posology, etc.-Evans, George A., Brooks, W. R., Dunsmoor, E. J., all equal.

Botany-Evans, George A., Brooks, W. R., Coleman, W. A.

Chemistry-Evans, George A., Barton, R. J., Colpe, George G.

The supplementary examinations for those who failed or were starred at this examination will be held in January, 1899.

January 3rd, 9.30 a.m., Chemistry. and at 2 p.m., Botany.

January 4th, 9.30 a.m., Latin and Posology, and at 2 p.m., Pharmacy.

### Ontario College of Pharmacy.

### FIFTY-SINTH SEMI-ANNUAL EXAMINATIONS.

The following candidates passed in all subjects: Armitage, W. A., Brantford; Miller, A. W., Ingersoll; Wigle, E. R., Wiarton.

The following passed now and on previous occasions: Brethour, G. F., Ottawa; Cameron, W. L., Norwood; Collins, C. P., Princeton; Craig, F. G., Ottawa; Glassford, F. R., Owen Sound; Haines, E. C. Owen Sound; Hewgill, W. H., Moosomin, N.W.T.; Jeffs, F. W., Havelock; Kelso, D. A., Toronto; Scott, W. N., Bradford; Snider, I. A., Guelph; Stewart, J. A., Ailsa Craig; Summerfeldt, W. H. C., Toronto. The following passed in four subjects Rennie, O. E., Walkerton ; Whitton, R. A., Ottawa.

### Formula Wanted.

E. D. asks for a formula for Mist. Ferri Salicylat. Can any of our readerfurnish it?

An American syndicate has purchased five acres of land at Thorold, Ont., and propose commencing the erection at once of extensive buildings for the manufac ture of caustic soda and bleaching powder. They intend using Goderich salt in the manufacture of these articles, and propose to have an output of at least one hundred tons per day.

### The British Columbia Pharmaceutical Association.

The president of the B.C.P.A. had cause for congratulation when he met the members of the council in Victoria on the 8th of December. There was a good attendance, the best for a long time, and everything passed off harmoniously. There were present Messrs. Sutherland, Seymor and Alkins, from Vancouver, D. S. Curtis, from New Westminster; and Cochrane, Chadwick and Hiscocks, from Victoria.

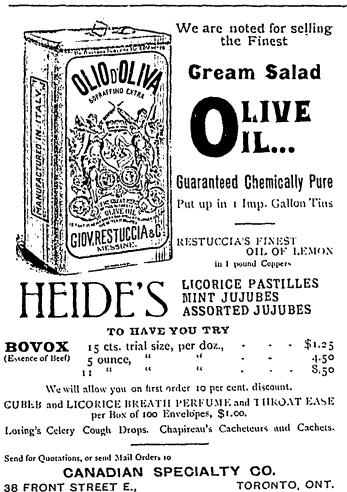
One of the most important communications was from the council of the O.C.P. agreeing to reciprocity of diplomas providing the holder had not failed to pass the O.C.P. matriculation examination. This is a move in the right direction, and, it is hoped, is but the beginning of a much to be desired Dominion\_diploma.

A move is in contemplation to amend the by-law relating to examinations so that when a candidate has passed in three or more subjects he will not be required to take those subjects again in the event of his failing in others.

The council very wisely decided that it is time to have something definite as to the adoption of the B.P. '98 and have written the Medical Council of B.C. asking when the medical profession desire to have it adopted. The reply will be looked for with interest.

#### A Ready Helper.

On pages 276 and 277 of this issue will be found a dose table of preparations of the British Pharmacopœia, 1898, which has been specially prepared for The CANADIAN DRUGGIST.



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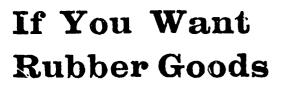
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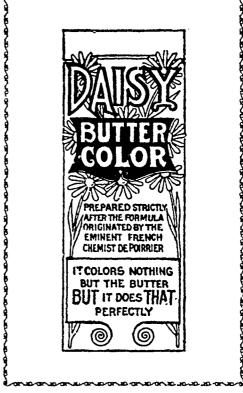
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It will be found to be a most valuable guide, not only for students in pharmacy and medicine, but also to the dispenser, who, by having this at hand as reference, can quickly see the dose of any prescribed remedy.

Pharmaceutical students will readily recognize its value as an aid to their course of study.

What may appear to be an error on the part of the compiler will be seen in the dose of liq. strychninæ hydr. This is due to errors in the B.P., as will be seen by comparing pages 495 and 488. It would be advisable to erase liq. strychninæ hydr from the table where it appears under the dose of 5 to 10 minims.

### Correspondence.

The editor dors not hold himself responsible for the opinions of correspondents. Correspondents must in all cases send name and address, not necessarily for publication.

Synopsis of B. P. Preparations.

To the Editor of CANADIAN DRUGGIST :

DEAR SIR,—Will you kindly permit me to respond through your columns to the numerous inquiries for the new edition of Synopsis of B. P. Preparations, that the matter is in the printer's hands, and will probably be completed on or about January 15th, 1899. The work is being revised to correspond with the recent edition of B. P., and is being considerably enlarged. Thanking you, I am,

Yours truly,

CHAS. F. HEEBNER. Toronto, Dec. 17th, 1898.

The Divisional Committee Circular.

Editor of THE CANADIAN DRUGGIST :

SIR,-Since the issue of Circular No. 4 of Divisional Committee, there seems to be somewhat of a misunderstanding as to what is meant by the \$4 fee. Would you permit me to say that the question is not merely "Are the druggists willing to have the fee raised to \$4?" The Council have that power now to collect \$4, in fact they do collect it, but under certain conditions they give a rebate of \$2. But the question is, "would the druggists be satisfied to receive no rebate and have a portion of that money used for such work as the Divisional Committee would undertake, viz., Commercial interest as well as Educational? or do you think, Mr. Editor, the druggists will prefer to give their surplus (either from \$2 or \$4) towards another larger college—an addition to the present college—a sinking fund for insurance purposes, or for increased expenditures of present undertakings?

Now this is really what the Council erquire of the Divisional Committee, "Whether the druggists will favor expenditure towards Commercial, mingled with Educational, advancement, or simply Educational?"

We have received a large number of replies and inquiries already, but there are still a large number who are yet holding their post cards sent them for their reply. We would be glad to hear from these men at once. It is for their good as well as ours.

Thanking you, Mr. Editor, for space, believe me,

Yours truly,

J. M. HARGREAVES. Paisley, Nov. 18th, 1898.

Ontarlo College of Pharmacy.

SENIOR EXAMINATIONS.

The following are the questions given at the semi-annual examinations, December, 1898 :

MATERIA MEDICA.

Examiner-D. S. SAGER. Time allowed, Two Hours,

1. Buchu.—(a) Praw a diagram of the leaf. (b) Mention the different varieties. (c) Give the constituents and specify the active principle. (d) Mention five drugs, official or non-official, containing a principle analogous to that of the most important one in Buchu. (e) Mention any other one leaf of the B.P. which might be mistaken for Buchu, and state briefly how you would differentiate them. (f) Habitat. (g) Preparations.

2. Mention (a) all the animal products of the B.P. (b) Habitat of each. Mention five drugs of the B.P. which contain a large percentage of starch. Give the habitat of these drugs.

3. Squills.—Give (a) part used. (b) Habitat. (c) Constituents, and state active principle. (d) Are any precautions necessary in keeping the powdered drug? If so, what? (c) Preparations.

4. Licorice. — Give (a) constituents, and specify the active principle. (b) Habitat.
(c) Preparations.

Extract of Licorice.—State the average amount of extract obtained from the root. What are the adulterations of the extract, and how would you cletect them?

5. Differentiate in any way you wish, microscopically or otherwise, between :

(a) Powd. Benzoin from Powd. Resin.

(b) Lycopodium from Sublinied Sul phur.

(c) Cetaceum from Paraffin Wax.

(d) Quassia from Soap Bark.

(e) Powd. Tragacanth from Sugar of Milk.

(/) Powd. Myrrh from Powd. Cinchona.

(g) Powd, Gamboge from Powd. Turmeric,

(h) Powd. Rhubarb from Insect Powder.

(i) Powd. Gentian from Powd. Galls.

(1) Powd. Calumba from Powd. Ip ecacuanha.

6. Senna.—(a) Draw a diagram of the leaf. (b) Mention the constituents and specify the active principle. (c) Is the active principle found in any other drug or drugs ? If so, state them. (d) What are the most likely adulterations of Senna Leaves ? (c) Habitat of Senna, (f) Preparations.

7. Oils.—Fixed and Volatile.—(a) Give the essential difference between Fixed Volatile Oils. (b) State the principal constituents of each class. (c) Mention all the fixed oils of the B.P. (d) Give the adulterations, impurities or deteriorations which occur in (e) Oil Lemon. (f) Oil Peppermint. (g) How would you detect them ?

8. Rhubarb. -Give (a) constituents, and specify the active principle. (b) Habitat. (c) Principal varieties of root. (d) Microscopically, how would you differentiate Powdered Rhubarb from Powdered Gamboge? (e) Are any precautions necessary in keeping Rhubarb? If so, what? (f) Preparations.

9 and 10 Oral Examinations.

Value.-10, 8, 7, 10, 15, 10, 10, 10, 20.

#### DISPENSING.

Examiner-W. Mi Kentson. Time Allowed, Three Hours, THOS GORDON.

R Plumbi acetatis. . . . . gr. in Acidi tannici. . . . . . gr. i.
Ol. theobrom, qs ut fiat suppos. mitte tres.
Statim utend. et repet. ut ne cesse sit.

W. LAKE.

B Emp. plumbi ..... 4 x 4 in. Part. dolent applicand.

### RUTH DEAN.

Ŗ	Sod. salicylat	<b>5</b> i.
	Quin. sulphgr.	x.
	Liq. ferri perchlor	3ij.
	Mucil. acaciae.	3i.
	Aquæad.	3vi.
	6 the Contract	

M. ft. mist. Cap. Coch. mod. q. q. quart. hora.

### J. OLIVER.

- B. Camphoræ..... gr. vi. Quin. sulph..... gr. vi.
- Ext. bellad ..... gr. iii. M. ft. pil. vi. Una t. d. s.

### R. BOND.

- R Ac. chrysophan..... gr. xx. Ext. bellad..... gr. x. Vaselini..... 5i.
- M. ft. ung. m. d. utend.

Values-20, 20, 20, 20, 20.

### PRESCRIPTIONS

Examiner-H. M. PACKERT, Phm. B. Time Allowed, Two Hours.

1. Give the full B.P. tule for each of the following, together with minimum and maximum doses: (a) grey powder, (b) lithia water, (c) sugar of lead, (d) salt of tartar, (e) liquor sarsæ, (f) black draught, (g) Rochelle salt, (h) Blanchard's pills, (i) Griffith's mixture, (j) Friar's balsam.

2. Name and describe any incompatibilities in the following prescriptions:

### (a) R

Sodii salicy1 15.0 Acidi citrici 5.0
Syrupi simp 30.0
Aquæ 150.0
M. Fiat solutio.
( <i>b</i> ) R
Hydrarg. chlor. corros gr. vi.
Kali iod 3i.
Quin. mur
Strych. sulph gr. ii.
Tinc. gent. co

### (c) R

(*/ **	
Tr. ferri mur	3ii.
Sodii salicyl	3iv.
Glycerin	<u></u> .
Aq. ad	. žiii.

### M. Fiat Mistura.

### (d) B

Strych. sulph.	gr. ii.
Potas. brom	<b></b>
Syrupi	Īi.
Aq. ad	zvi.
M.	

### (e) B

Bismuthi subnit	3ii.
Sodii bicarb	3i
Mucil. acaciæ q. s.	

- M. Div. in pil. No. xxiv.
- 3. Translate the following :
- 1. Into English.
  - (a) Viginti unus, (b) In clavo pro re nata pingendo, (c) Macera per horam in vase leviter clauso, et cola, (d) post prandium, (c) Sumat unam, sextis horis donec commode purgetur.
  - 2. Into Latin.
  - (a) Mix, make a powder and of such, send seven.
  - (b) One ounce of extract of colocynth, (c) From day to day, (d) Take one teaspoonful in a little water, (c) Take one pill when pain is severe.

4. Describe the process you would tollow in making 30 pills from each of the following :

(a) 30 grains of carbolic acid.

- (b) 60 grains of pot. perman.

M. Sig. Use in a hypodermic syringe. What quantities of cocain mur. and boric acid would you dispense? Explain how you would fill this prescription.

6. Translate the following into English, expressing the quantities in the Metric system:

Recipe-

Olei Ricini. unciam et semissem.

Tincturæ Opii, drachmam semissem. Pulveris Acaciæ.

Sacchari ana drachmas duas.

Saccharl ana Gracimias Guas

Aquæ Menthæ piperitæ uncias quatuor. Acaciam et Saccharum crm paululo.

Aquæ Menthæ piperitæ tere ; dein

oleum adjice, et iterum tere, denique

aquam reliquam paulatim infunde et omnia misce.

Signa—Cochlear unum statim sume et horis duabus repetenda si opus sit.

7, 8, 9 and 10. Oral.

Values : 10, 10, 10, 10, 10, 10, 40.

CHEMISTRY. Examiner-FRANKLIN T. HARRISON. Time Allowed, Two Hours.

1. What is percolation? Describe carefully the operation of packing a percolator Give methods for recovery of menstruum.

2. Discuss the relative advantages of mercury and spirit thermometers. Convert the following :

- -10° Centigrade into degrees Fahrenheit.
- -40° Centigrade into degrees Fahrenheit.
- --23° Fahrenheit into degrees Centigrade.
- 4° Fahrenheit into degrees Centigrade.

3. Describe accurately the preparation of the following, giving reasons for any special manipulation: Syrup of iodide of iron, strong solution of perchloride of iron, aromatic spirit of ammonia.

4. Name the ingredients in the following preparations: Tincture of kino, resin ointment, liniment of camphor, liniment of chloroform, Gregory's powder, black draught, resin plaster.

5. Name the active ingredients and strength of the following preparations: Fowler's solution, Donavan's solution, spirit of ether, spirit of camphor, wine of quinine, paregoric, tincture of iodine.

6. Name the common constituents of drugs which are extracted by (a) rectified spirit ; (b) cold water.

7. Define the following terms : Crys talline amorphous, dimorphous, polymorphous, isomorphous, mother liquor, water of crystallization.

8. Acetic Acid.—From what and how is it prepared? What are ordinary impurities, and how detected? Give strengths of the official acids.

9 and 10. Oral, and recognition of specimens.

Values-10, 7, 12, 12, 12, 8, 7, 12, 20.

### CHEMISTRY. Examiner-PAUL 1. Scott.

Time Allowed, Two Hours.

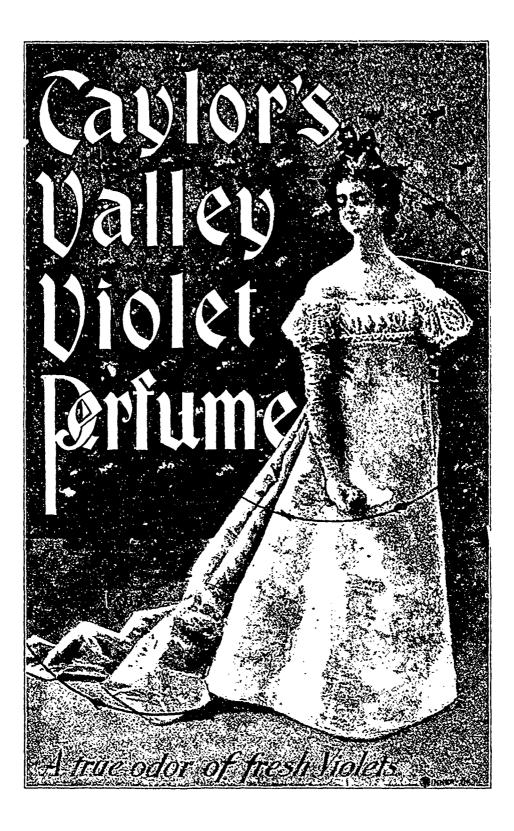
1. Write a brief account of the chem istry of chlorine.

(2) Define "Latent Heat" and account for the occurrence of the phenomenon. Define "Specific Heat" and state why the specific heat of an element is of importance in determining its atomic weight.

- 3. Complete the following equations:  $2NH_{1}Cl + Ca(OH)$ , (upon heating) = Fe<sub>2</sub> Cl<sub>6</sub> + H, S = Na<sub>2</sub> CO<sub>3</sub> + CO<sub>2</sub> + H, O =
  - 6KOH + 3I, -
  - SO, + H, O + NO, -
  - $2KMnO_4 + 10 FeSO_4 + SH, SO_4 =$

4. Sodium hypophosphite was prepared by the action of hot solution of soda upon phosphorus. The volume of phosphine gas liberated was 5 litres, measured

 $\mathbf{C}$ 



Manufactured only by



Abbey's Effervescent Salt Reaches the Consumer Through the Retail Druggist Only

# WHAT THE DRUGGIST WANTS.

when he buys pills, is pills that give results. He cannot afford to risk his reputation by dispensing pills that are insoluble, no matter if they can be crushed under the pressure of the thumb. People do not carry around a board and hammer, or even a thumb, in their stomachs, with which to apply the necessary pressure. Therefore pills must be soluble -not "mashable"-or they pass through the alimentary canal intact, and do not give results.

- STEARNS' PILLS ARE SOLUBLE, and we know it, therefore we do not object to comparative tests. We hold that next to the actual clinical test there is no fairer one than that of solubility, and we are willing to put our pills, old or new, against anybody's on that score. We have been making pills about half a century, and the testimony of the thousands of druggists who have sold our pills during that time, is that they never handled more satisfactory goods.
- STEARNS' PILLS GIVE RESULTS, and are as good as money and skill can make them. That is one reason why it is to the druggist's interest to buy them ; there is another reason, hardly less potent-the price. When it comes to pill prices we are the people for the druggist to see, and if we can't interest him, it will be a wonder.

⋇

ASK US ABOUT THOSE PILL PRICES BEFORE YOU FORGET IT. ....

쑸

## Frederick Stearns & Go.

MANUFACTURING PHARMACISTS

## WINDSOR, - Ont.

DETROIT, MICH.

NEW YORK CITY LONDON, ENG.

at 20°C, under a pressure of 750<sup>m a</sup> How much phosphorus was used ?

4P+3NaOH+3H,0 - 3H, POONa + PH<sub>a</sub>,

(Atomic wt. of phosphoras 31.)

5. Show by equations the action of (a) hydrochloric acid and (b) sulphuric acid upon ethyl alcohol. Give the graphic formula of ethyl alcohol and of the aldehyde and acid it yields upon oxidation.

6. Describe briefly Marsh's (hydrogen) test for arsenic, explaining the nature of the reactions which occur.

7. Give a method for the preparation of magnesium carbonate, of potassium cyanide and of hydrogen peroxide. Why is ozone a more active oxidizing agent than ordinary oxygen?

S. Give a method for the detection of the acids in a solution of :

(a) Sulphates and nitrates.

(b) Sulphites and citrates.

And of the bases in a solution of:

(c) Salts of iron and copper.

(d) Salts of lead and silver.

The following may be substituted for any one of the above questions :

A certain solution of hydrogen peroxide contains 3 per cent. by weight of the anhydrous peroxide (H, O,). Another solution of the same substance yields 15 volumes of available oxygen (at standard temperature and pressure). Compare the strength of the two solutions, assuming both to have the same specific gravity as water.

(2H, 0) = 2H, 0+0.

9 and 10. Oral examinations.

Values-12, 8, 12, 10, 10, 10, 8, 10, 20.

LOTANY.

Examiner-CHARIRS R. SNEATH. Time Allowed, Two Hours.

1. (a) What are the pteridophyta?

(b) Describe mode of reproduction.

2. Chlorophyll.-Explain fully its uses and properties.

3. What are buds? Enumerate and define the different kinds of buds.

4. What is a fruit? Classify and explain.

5. Define the terms: (a) Species (b) phyllotaxy, (c) perianth, (d) stolon, (c) directious.

6. What is inflorescence? (a) Explain the different kinds, (b) describe corymb, umbel, raceme.

7. Enumerate fully all the differences between exogens and endogens.

S. Describe a plant cell.

Values-10, 10, 10, 10, 10, 10, 10, 10,

# Pharmacy in England.

Urotropine - Terpeneless Essential Oils Meadache Remedies Effervescing Sulphate of Sodium - Kodak Limited - Chloride of Ethyl for Local Anæsthesia.

(From our even Correspondent)

One of the latest new remedies that is receiving some degree of popularity is urotropine, a compound of formaldehyde and ammonia, patented by Schering. It was introduced first as a une acid sol vent and substitute for the expensive piperazine, it being claimed that it speedily dissolved all concretions, besides exerting a diuretic action. But lately it has been discovered most useful in cystitis and purulent urine, clearing the pus from the urine no doubt, because in the system the formaldehyde exerts its antiseptic Chemically urotropine is properties. hexamethylene-triamine, and although the phonetic approximation to atropine has already troubled the soul of one of our leading pharmacists, it is no doubt more convenient than its chemical name. It occurs in small colorless crystals or crystalline powder, easily soluble in water, less soluble in alcohol, and almost insoluble in ether. It is unquestionably an interesting compound, and the manufacturers have not fixed a prohibitive price, whilst they supply it in tablet form at a nominal increase on the ordinary price. The dose is 5 to 15 grains, the tablets being 712 grains each.

Some time ago I drew attention in these columns to Heinrich Haensel's Terreneless Essential oils, although I was not able to speak very favorably about the only specimen I had then examined. The number of oils prepared by a special process, which is Herr Haensel's secret, and only briefly described as consisting of the combined oxygenated constituents of the natural oil, now amounts to nearly thirty. Some of these are of undoubted utility. Especially in the manufacture of soluble essences for aerated waters, liqueurs, and cordials. Curiously enough the terpeneless oils are more soluble in the diluted alcohol than the original oils, and consequently stronger preparations are produced. This is largely balanced by the considerable increase in the cost. Thus in the case of terpeneless oil of bay, the increased strength claimed for it is only four times that of the commercial oil, and the price more than four times as dear. On the other hand terpeneless lemon oil

is claimed to be thirty times as concentrated, and the result is not so bad. Amongst the oils that produce good results can also be included calamis oil, where one and a half drachins suffice to flavor twenty-two gallons of liqueur. The oil of orange is so powerful that it is claimed that five minims will flavor one gallon of syrup. If it is permitted to hazard a guess as to the method of producing terpeneless oils, the most probable method is distillation of the purest commercial specimens under reduced pressure, and removal of all valueless stearoptenes by subsequent freezing.

Chloride of Ethyl is being extensively used for the purpose of producing local ancesthesia since the glass tubes were introduced, by means of which the heat of the hand alone is sufficient to eject a fine spray on removing the cap. The liquid is of light specific gravity, like ether, and produces its effect by reason of the cold resulting from its rapid evaporation. The spray is directed to the part requiring to be anæsthetised, holding the tube some six or eight inches off, and aiding the evaporation by gently blowing At first a pink patch is produced, quickly followed by a white place, which denotes that the part is anæstheused. This usu ally only takes about 20 10 30 seconds, and passes off in a couple of minutes. leaving a reddish spot with a slight ting ling behind. It has been found by one observer that the temperature beneath the skin can be reduced to 16" below zero, but the advantages claimed is that no ill effect is produced upon tissues. tiven if the surface is tender or exposed the pain can be obviated by smearing the part with vaseline and then applying the spray. More painful parts still or deeperseated structures can be reached by first applying a compress dipped in 5 per cent. cocaine solution, and when the surface is thus locally anæsthetised the spray freely applied. It has proved most successful in removing adenoids or small pustules, or when squeezing the pustules of acne, in operations for in-growing toe-nails, etc., and minor operations generally. It was formerly recommended for dental extractions, but certain precautions must be observed. For instance, if care be not taken, it will produce similar results to those of chloroform or ether, should it be inhaled. Again, the adjacent healthy teeth must be protected, and the spray only directed to the base of the tooth. It has also been successfully employed in veterinary practice. Chloride of Ethyl is inflammable, and when burning gives rise to hydrochloric acid, which is very irritating.

Headache powders are quite a household remedy now, and for this we have to thank acetanilide. The most successful formula is composed of 70 per cent. acetanilide, 20 per cent. of sodium bicarbonate, and 10 per cent. of caffeine citrate, and is really very efficacious. The directions usually require the patient to rest in a recumbent position for some time after taking the medicine, and this is no mean factor in the treatment of the nervous form of headache so often met with. The powders are sold as low as 2 cents each, but these are usually acetanilide alone in about 7 grain doses. A more elegant and slightly more expensive form is to dispense the remedy in cachets upon which is stamped in color the title. headache cure, and the name of the chemist. In any case, they should be neatly boxed and labelled. A small circular should accompany the remedy, and attention drawn to the varieties of headache, other than nervous, such as neuralgic, when a neuralgia mixture of bromide of quinine and tincture of gelsemium could be recommended in addition to the powders. Compressed tablets are not so satisfactory for this purpose as powders and cachets, as they make so small a package.

The successful flotation of Kodak, Limited, with the enormous capital of  $f_{1,000,000}$  (\$5,000,000) is a proof of the sound condition of the trade of photography, especially that part which caters for amateurs. With considerable business acumen and foresight an early copy of the prospectus was sent to the trade customers of the Eastman Photographic Materials Company, and, although authority to offer a preferential allotment was specially disclaimed, it was intimated that if a special form were filled up the hoard would do their best to procure preferential aliotment. And this was duly carried out, many of the dealers taking the opportunity of securing small interest in the goods which they sell other than as mere retailers. This has

been found to be the soundest policy as was clearly shown in the case of Bass & Co., where shares were judiciously distributed first among the trade and afterwards the investing public. Whereas a good deal of the want of success in Allsopp's has been attributed to the reverse condition having been allowed to happen. Kodak Limited, comprises all the English, German and French Eastman Companies and fully ninety-five per cent, of the shares of the American Eastman Kodak Co., and the net profits for 1897 were \$926,000 and the first six months of 1898 show an increase of twenty-seven and a half per cent. upon these receipts.

Since the introduction of Kutmow's effervescing salt, there has been some demand for a palatable effervescing sulphate of soda, and there is, no doubt, plenty of scope for such a preparation. The pharmacopœial article is not sufficiently sweet, but with the addition of sugar a preparation is obtained that is most suitable as a laxative and can be taken even on an empty stomach by the most fastidious. Glauber's salt is the active ingredient in several natural aperient waters and is not so bitter as Epsom salts, whilst its action is less griping. The latest and best form of granular preparation is not in the usual bold granules, but a small crystalline powder obtained by rubbing the granules, whilst still damp, through suitable sieves. The advantage claimed is that effervescence is brisker and not too sustained, which is often the case with large granules as they are not attacked by the water quick enough. Consequently the customer is apt to either wait until effervescence is nearly over or gets some of the granules in the mouth.

Competition in the drug trade bids fair to become even more keen in 1899. Already new departures are being arranged and scope extended. Ferris & Co., have appointed a traveller in the West Indies, whe, besides covering that large field and cultivating trade with South America, is to hold stock of their goods in Kingston, Jamaica. Bush & Co. have opened depots, or arranged for them, in Calcutta, Cape Town, Buenos Ayres, Rio de Janeiro, etc. Horner & Sons have fresh agencies in India, and contemplate a depot in Melbourne or Sydney. Hewlett & Sons have appointed an Australian representative; Burgoyne & Co. are sending a fresh man to South Africa, and Evans & Co. are

pushing their Canadian business as a depot for English specialties. So far I have not heard of any arrangement for China, but when the open door is fixed something may be done, in the meantime it is evident that the enterprise of the manufacturers in the home country is not on the wane, and that they are determined to push business all over the world.

### Pharmacy Students' Association.

The Pharmacy Students' Association of the Montreal College of Pharmacy have elected the following officers for the term : President, H. Guerin ; Vice-President, J. Bisaillon ; Secretary, J. Bourbonniere ; Treasurer, A. Dastous ; Committee, Mess. F. Leduc, P. Leduc and W. Dubois.

### Syllabus of Materia Medica.

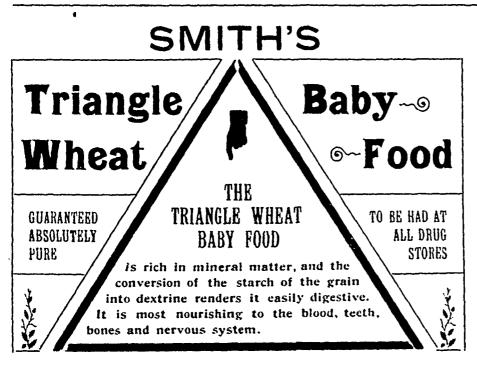
Revised in accordance with the B. P., 1898. This pocket reference book, revised by W. Martindale, F.L.S., F.C.S. joint author of "The Extra Pharmacopœia," is in accordance with the plan of the originators, Drs. Harvey and Davidson, and has been now made to meet the requirements of the new Pharmacopœ'a.

This work has been used by students at University College, London, and is a valuable aid in concise form. The wellknown ability of the revisor ensures the accuracy and thoroughness of the work. It is published at one shilling by H. K. Lewis, 136 Gower St., London, W. C.; Carveth & Co., Toronto.

### Calcium Hydride.

Calcium hydride is prepared by Moissan by heating pure, crystallized calcium with hydrogen in a tube, under pressure. At a dull red heat calcium burns in a hydrogen atmosphere with the formation of a white substance of the composition CaH, In operating with 1 to 2 gm. of calcium, the reaction may be performed in a glass tube. Calcium hydride is a white mass of the specific gravity 1.7. stable at 600° C. in vacuo, not changed in an atmosphere of chlorine in the cold, but burning in it an elevated temperature with a bright flame, forming calcium chloride. With bromine and jodine the reaction is still more violent.-Ch. Centralbi.

Acetol, a remedy for toothache, is made with acetic acid S.46, alum 3 07, and water SS.5 per cent. Sage, peppermint and clove oils are used in flavoring,



Try TRIANGLE FOOD when all other INFANT FOODS have failed

### Extract from Prof. Heebner's Report.

"Your Baby Food has a peculiar characteristic dige-tibility, not in the least unnaturally easy of digestion, but simply suited to the functions of the child, and, therefore, entitled to the highest rank."

Certificate from a New York Lady.

MR. SMITH. Dear Sir - It is with a great deal of pleasure that I respond to your request for a few words concerning the ments of your Baby Food Last summer nothing I tried seemed to agree with my little one He had wasted away till he was not much better than a skeleton, and I seemed to be able to do nothing to help him. A friend of mine living in Canada, having used your Food with great success, recommended it to me, and 1 re solved to try it, though I had used so many different kinds, with no success, that I felt very little confidence in it. But from the moment I began to use it my little boy began to mend, and now he is so big and fat that he looks twice his age. Your bood, without doubt, saved my haby's life, and I gladly recommend it others, and feel assured it people will only give it a trial they will be more than satisfied with the results.

Very truly yours, MRS, J. CHAMBERS, 92 Barrow St.

A large number of similar certificates on file

# ARCHDALE WILSÖN & CO., = Hamilton ANTISEPTIC

THROAT PASTILLES Prepared in accordance with the formula of DR. BARK, of the Liverpool Hospital for Diseases of the Throat, Nose and Ear

HIGHLY recommended for Vocalists, Fublic Speakers, and for Affections of the Throat. Immediate relief in Coughs, Colds, Asthma, Bronchitis, etc An Infallible preventive of Diphtheria and other contagious diseases of the Throat. A Physician states that the Paroxysms of Whooping Cough may be prevented by giving one of the Pastilles upon retiring for the night, thus producing absolute rest, both to the Patient and to the household Directious for Use.—Allow the Pastille to gradually dissolve in the mouth. Fluids should not be taken immediately afterwards

**Dose.**—From 5 to 10 Pastilles per day, between meals, chiefly in the morning and evening. To BE KEPT DKY

137 These Pastilles, which were brought out for the benefit of the Liverpool Hospital for Diseases of the Throat, Nose and Ear, have have already met with a very large sale, both at home and abroad, owing to their intrinsic merit. The proceeds from the sale are largely devoted to the funds of that institution.

None genuine unless bearing a Label with the above Trade Mark and name of the sole proprietors,

23 Front St. W., Toronto, Canada.



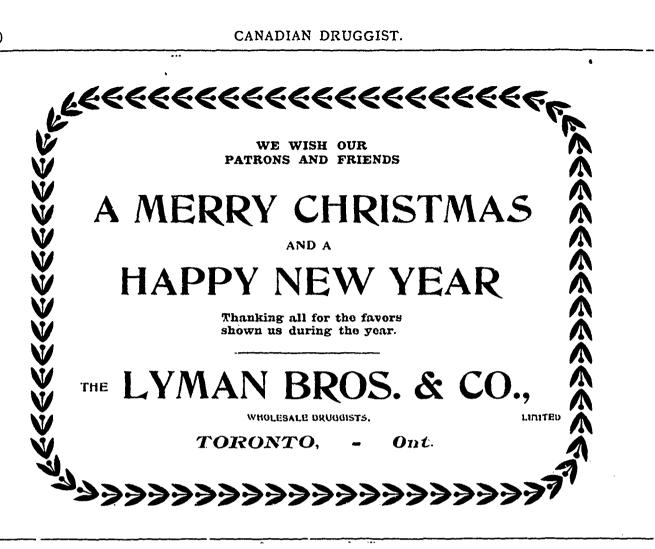


37-41 St. Jean Baptiste St., Montreal, and 137 Pearl St

and 137 Pearl St., Boston, United States

Evans, Sons & Co., 56 Hanover St., LIVERPOOL. - Evans, Lescher & Webb, 60 Bartholomew Close, LONDON, E.C. SOLD BY ALL CHEMISTS AND DRUGGISTS.

New York City, Uct. 29, 1898.



# Blue Seal Vaseline

**Reduced** Prices

Size No. I No. 2

**\$4.60** per gross 9.60 "

The New Preparation:

# "WHITE LIQUID VASELINE"

It is a chemically pure Vaseline, which gives the best results for spraying purposes and in the treatment of such delicate organs as the eye, ear, throat, and other delicate mucous membranes. Put up in eight-ounce and 16-ounce glass-stoppered bottles and in five-pound cans.

> **PRICES:** 5 pound Cans..... \$2 00 per can. 16 Oz. Bottles (Boxes of one-third of a dozen) 6 10 per dez. .. 44 68 45 1 05 8

# Ghesebrough Manufacturing Go., Gonsolidated,

**CANADIAN BRANCH:** 823 GRAIG STREET, MONTREAL

## Trade Notes

Charles Hall is opening a new drug store at Reaburn, Man.

James Doan, druggist, Kingsville, Ont., has made an assignment.

S. E. Hick has removed his drug business from Paris to Goderich, Ont.

E. L. Jackson, Uak River, Man., has sold his drug business to Dr. J. Kirk.

A. T. Andrews, of Gladstone, Man., is opening a branch drug store at Plumas, Man.

R. D. Stiles, druggist, Pictou, N S., has offered to compromise at 25 cents on the dollar.

H. A. Peacey & Co., druggists, Cumberland, B.C., have dissolved partnership, Dr. Lawrence retiring.

F. Jordan is commencing business again in the premises formerly occupied by him in Goderich, Ont.

The drug stock of the estate of R. D. McA. Murray, St. Martin's, N.B., has been sold to E. S. Hatfield.

Dr. R. E. Lejordhow is opening a new drug store, cor. Greene avenue and St. James street, Montreal, Que.

The failure is announced of R. H. Tremaine, druggist, Amherst, N.S. An attachment for \$3,782 has been filed.

The Canadian-American Glass Company of Detroit, Mich., are about establishing a branch factory at Kingsville, Ont.

H. R. Lancetot has purchased the drug business of C. S. Stroud, cor. St. Lawrence and Prince Arthur streets, Montreal.

H. L. Mackinnon has purchased the entire interest in the drug business carried on under the name of the Medical Hall at North Sydney, N.S.

"The Fancy Goods Company of Canada," with capital stock of \$100,000, and headquarters at Toronto. Ont., have applied for letters of incorporation.

The Sydenham Glass Co., of Wallaceburg, Ont., have commenced the manufacture of flint glassware, and are employing an additional number of hands.

Mr. H. L. Mackinnon, who has been for some years in charge of Medical Hall, North Sydney, has purchased that business, and his many friend- wish him success in his new undertaking.

W. F. Howard & Co., Winnipeg, Man., have moved their drug business from the premises occupied by them for a number of years on Main street to a more commodious store on Bannatyne avenue.

### Nova Scotla Notes.

The exceptionally bad weather of the past month has rather thrown a damper over the retail drug trade of the city, but under improved conditions, and a colder atmosphere, there is yet time for a Christmas boom.

A new drug store is being opened up at historic Louisville, in Cape Breton, by Dr. Freeman O'Neil, whose friends pre. dict a successful business career for him.

A. W. Kennedy, who passed the Pharmaceutical Exams. in Nova Scotia, is doing business in St. John's, Newfoundland, and reports trade in a flourishing condition in his line there.

Mr. Fred E. Pentz, the Hantsport druggist, has been ill with typhoid fever, but expects to be at his business in a very few days now.

Dr. A. F. Falconer, who for many years practised his profession, and did a drug business in Sherbrooke, N.S., died recently at that place. Dr. H. A. Payzant is now carrying on a drug business in Sherbrooke, and has associated with him Mr. A McDaniels.

Mr. J. J. Turnbull, formerly of Antigonish, is now in partnership with Mr. D. A. Winterbotham, at Sydney Pharmacy, in Sydney, C.B.

Messrs. Copeland & Co., of North Sydney, have now a branch store at Sydney Mines.

Mr. H. E. Wilson, of Windsor, reports business good in that town. Windsor is making rapid strides into prosperity, and developing into a new town in place of the one that was swept out of existence by the destructive fire of October 1st., 1897.

#### British Columbia Notes.

The British Pharmacopœia, 1898, is not in general use throughout this province. There are many druggists who have yet to make up their first prescrip, tion calling for '98 preparations. The physicians are slow to make the change; in fact, many have not taken sufficient interest to even enquire as to the changes.

A meeting of the Council of the B.C. P.A. will be held in Victoria on Thursday, Dec. 8th. It is hoped that some thing will be done at this meeting to bring about something definite as to the adoption of B.P., '98.

Mr. Curtis, druggist, of New Westminster, is busy rebuilding. When finished his store will be one of the bandsomest on the coast. He purchased the oak wall fixtures and also soda fountain in Victoria.

Business has been remarkably good up to time of writing, and the indications for holiday trade are good.

Anent your article on the ownership of prescriptions it may be of interest to some to know that the British Columbia Legislature fixed things for us this way : Sec. 26 Pharmacy Act-Any person who presents a prescription to any qualified druggist to be filled shall be entitled to have such prescription returned to him by such druggist.

### Montreal Notes.

It is stated that Mr. Lanctot has pur chased the business of Dr. Stroud, corner of St. Lawrence Main and Prince Arthur street, and that he will make his new stand his headquarters. It is a most sensible move on the part of Mr. Lanctot, and his confreres will wish him success in his venture.

When Judge Loranger took the case of the Pharmaceutical Association against a well-known departmental store for selling drugs and medicines contrary to the pro visions of the Quebec Pharmacy Act en delibere, he remarked that it was hard to tell a pharmacy now when one passed it, as many of them were more like fancy stores than professional looking pharmacies.

The council of the Pharmaceutical Association is leaving no stone unturned to checkmate the departmental stores and corner grocerymen if they persist in trying to get the Pharmacy Act repealed, in order to enable them to sell all kinds of drugs and medicines *ad lib*.

The grocers are beginning to realize the fact that, in aiding the department stores to gobble up the pharmacists, they are only preparing a rod for their own backs.

Mr. Charles E. Scarff, pharmacist, St. Catherine street wist, has been appointed sole lessee of the right to manufacture in Canada the suppositories of Burroughs, Welcome & Co., London, England. These articles are patented in Canada, and, in future, all orders for importation must be sent to Mr. Scarff direct.

### ONTARIO COLLEGE OF PHARMACY.

### Junior Examinations, December, 1898-

PHARMACEUTICAL LABORATORY.

Examiner: CHAS. F. HELLNER, Ph. G., Phm. B. (Tor.) Time allowed, Two hours,

1. Prepare 100 grams of strong solution of lead subacetate in accordance with the following formula:

Liquor Plumbi Subacetatis Fortis, P.B.

Lead acetate 48.750
Lead oxide, in powder 34.375
Distilled water213.000

Will make of finished solution, 250.

Heat the distilled water until it boils, and dissolve in it the lead acetate. Add the lead oxide gradually and boil gently for thirty minutes, keeping the lead oxide suspended continually. Finally, filter the resulting solution and make it weigh 100 grams.

Bottle the liquid, label (using Latin title), and hand to the examiner.

2. Determine the specific gravity of the liquid in two-ounce bottle handed you.

Report on strong solution of lead subacetate.

State the amount of each ingredient used :

(a) Lead acetate. (b) Lead oxide. (c) Distilled water.

(d') Illustrate by means of an equation the chemical change which takes place in preparing this solution.

Report on specific gravity determination:

(e) Quantity of solution used, both weight and volume.

(f) Weight of an equal volume of water.

(g) Specific gravity.

Exhibit figures in all the calculations required.

N.E.— Neatness of work, order in arrangement, and cleanliness of working desk and outfit, will enter as important factors in your ratings.

### ANALYTICAL CHEMISTRY.

### Examiner: GRAHAM CHAMDERS B.A., M.B.

Time allowed, Two hours.

1. Detect the base and acid in substances marked "A" and "B."

2. Detect the acid in substance marked "C."

3. Detect the base in substance marked "D."

4. Write equations illustrating the ac-

tion of hydrogen sulphide upon (a) Lead nitrate, (b) Chlorine, (c) Zir c sulphate.

5. Write equations illustrating the action of hot sulphuric acid upon (a) Carbon, (b) Potassium bromide, (c) Copper.

6. Write equations illustrating the action of dilute sulphuric acid upon (a) Barium oxide, (b) Ferrous sulphide, (c) Magnesium.

7. Describe experiments showing how you would distinguish :

(a) Solution of chlorine from a solution of hydrogen perovide.

(b) Nitrous oxide from oxygen.

(c) A nitrite from a nitrate.

### PHARMACY.

Examiner: CHAS. F. HEEDSER, Pb. G., Phm. B. Time Allowed, Two and One-balf Hours.

1. METRICAL SYSTEM.—Give the derivation of (a) the unit of linear measure; (b) the unit of weight; (c) the unit of capacity. State the equivalents of the following in customary weights and measures; (d) gram, (c) liter, (f) meter.

2. What are the approximate metrical equivalents for : (a) grain, (b) fluid ounce, (c) inch. How many cubic centimeters are represented by (d) a liter, (e) a centiliter.

3. Add the following and state the number of (a) kilos, (b) av. lbs. represented by their sum :--475 dekagrams,  $7\frac{1}{2}$  kilos,  $2\frac{1}{4}$  myriagrams, 736 decigrams, 460 milligrams. 3 hectograms and 34 centigrams.

4. SPECIFIC GRAVITY.—(a) Describe the hydrostatic balance, and (b) mention its utility. (c) What factor is required and invariably determined by experiment, in order to ascertain the specific gravity of every substance; (d) how is this determined in the case of a substance like silver?

5. What is the specific gravity of the following B. P. substances :--(a) Acidum Hydrochloricum, (b) Spiritus Rectificatus, (c) Liq. Annuonice Fortis, (d) Liq. Plumbi Subacetatis Fortis, (e) Glycerinum, (f) Æther Purificatus.

6. State the percentage streng'h of (a) Rectified Spirit, (b) Solution of Animonia, (c) Purified Ether, (d) Chleroform. (e) What is the specific gravity of a watersoluble substance weighing 8.755 grams, that weighs in purified ether (minimum sp. gr.) 7.505 grams.

7. EXTRACTION.—(a) Define; (b) name the processes which it includes. (c) Explain the theory of exhaustion as exhibited in percolation, and (d) show why plant drugs cannot be exhausted by maceration. (e) Give tests for exhaustion. (f) In what cases is maceration preferred to percolation; (g) Why re drugs dampened previous to packing for percolation?

8. 225 fluid ounces of official Alcohol, 60 p.c., are wanted, how much alcohol, 90 p.c., and water are to be mixed to furnish this amount?

9. (a) Define Evaporation-in-vacuo, and (b) describe apparatus required. (c) State advantages of this over other methods of evaporation. (d) Describe a properly constructed water-bath, and state object of its use.

10. SYRUPUS FERRI IODID.—(a) How is it prepared; (b) how should it be stored; (c) why should it not be dispensed when yellow in color, what is its (d) strength; (c) its dose?

11. Give two methods for preparing Granular Effervescent Salts, and mention the usual constituents of such mixtures.

12. Potassium Hydroxide is soluble in two parts of alcohol, 90 p.c.; a saturated alcoholic solution weighs 400 Grains and has sp. gr. 0.975; (a) what weight of salt is contained in the solution, and (b) what is its percentage strength; (c) what is the percentage strength of an aqueous saturated solution of Ammonium Chloride?

#### CHEMISTRY AND PHYSICS.

Examiner: A. Y. SCOTT. B.A., M.D., C.M. Time Allowed, Two Hours.

t. Nitrogen, phosphorus, arsenic, and antimony occur in the same vertical column of the periodic system. What analogy is there in their chemical and physical behavior justifying this classification?

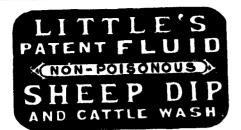
2. Define the terms allotropism, molecule, multiple proportion, catalysis, dissociation.

3. (a) Give fully the preparation, properties, impurities and tests for the impurities of sulphuric acid.

(b) How much oxygen measured at 17°C. and 756mm. are required to oxidize 500 grms. of iron pyrites, and how much sulphur dioxide at 0°C. and 760mm. is produced?

4. What precautions should be observed regarding the examination of wellwater? Name some of the common impurities, and how they would be detected.

5. Hydrogen Chloride—How is this substance prepared? For what is it used? How is its composition determined? Why is the formula HCl. and not  $H_2Cl_2$ ?



### For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

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

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

Removes the unpleasant smell from Dogs and other animals.

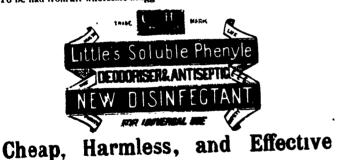
"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is reconciliated to the determined on the market is pronounced to be the cheapest and most effective remedy on the market. 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

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

## ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

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To be had from all wholesale druggists in Toronto, Hamilton, and London.



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

### NON-POISONOUS AND NON-CORROSIVE.

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

"Little's Soluble Phenyle" will destroy the infection of all Fevers "Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it. Used in the London and Provincial Hospitals and approved of by the

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

Sold by all Druggists in 25C. and 508. Bottles, and \$1.00 Tins.

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

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Sold Agent for the Dominion.

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

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Sticks 4, 6, 8, 12, 16 to the pound.

MELLOR & RITTENHOUSE CO.'S AND

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LONDON, ONT.

Also the old reliable SOLAZZI.

RICONDOJA

Successors to the London Drug Company.

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**どんべんべんべんべんべん 5()()** for a Belladonna **Plaster Test** ususususususususususususususus

T has come to our knowledge that certain manufacturers have placed upon the market Belladonna Plasters which are made to show a high test for alkaloids, but which it is openly stated are not made of Belladonna, but of other drugs. (See Proceedings A.P.A. 1890, page 155, also American Journal of Pharmacy, April, 1898, page 182.) We are also in possession of facts that tend to show that plasters made strictly in accordance with the Pharmacopœia, containing a proper portion of Extract of Belladonna, from the laboratories of the most reputable pharmacists in the world, such as Allen & Son, London ; E. R. Squibb & Sons ; Parke, Davis & Co.; Lloyd Bros., Cincinnati, are condemned by certain assayists as being below the pharmacopical standard.

We are also aware that Belladonna Plasters, containing little or no Belladonna, but stuffed with alkaloids for show assay, are accepted as conforming to the Pharmacopacia. We are also aware of the many difficulties and the lack of uniformity in the chemical assay of Belladonna

**Johnson & Johnson** 

New Brunswick, N.J., U.S.A.

Plasters, especially in rubber compound. (A recent published report of an assay by several analysts shows a variation of several hundred per cent. as applied to the same sample of Belladonna Plaster.)

In view of the uncertainty and unreliability of chemical tests commonly applied to Belladonna Plasters, and in view of the fact that they are of little value to the druggist or physician, who is unable to verify or disprove them, we are led to make the following offer :

We will pay Five Hundred Dollars for the best process of testing Belladonna Plasters, adapted to the use of the druggist and physician possessed of ordinary intelligence and faculties, which will show :

1. Whether a given sample of Belladonna Plaster is made of Belladonna, or is compounded from some other drug or drugs, or filled with mydriatic alkaloids for assays or other purposes.

2. Whether or not a given sample of Belladonna Plaster conforms to the pharmacopœial requirements.

In other words, a procees which will enable any buyer or prescriber to judge of the reliability of the Belladonna Plasters on the market. Further details and information as to this award will be made upon application. The award will be made by a committee of pharmaceutical and medical authorities to be hereafter named.

Johnson's Belladonna Plaster is made of Belladonna; it conforms in strength of drug to the United States Pharmacopæia (incidentally to the B.P. 1885).

We are desirous of securing a process that can easily be applied, and that will convince buyers of Belladonna Plasters of the accuracy of this statement.

> Care of GILMOUR BROS. 485 St. Paul St., Montreal

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Size, including Frame, 1034 x 9 Inches.

ADAMS' HAND-FINISHED

# Gems of **Fine Art**

If you want a handsome gem of genuine art get one of these pictures. There are six different scenes, all from French Masterpieces, set in gold filigree frames.

One goes to each customer with the following Assortment, viz.:

2 Boxes Tutti Frutti 1 Box Pepsin Tutti Frutti 1 Box Globe Fruit	1 15
Gem of Fine Art	\$6 55 4 00 \$10 55

Price, Complete, 85.00

ADAMS & SONS CO., (Toronto Factory) 11 & 18 Jarvie Bt., TORONTO, Ontario.

6. Write an account of the chemistry of ammonia.

7. Sprengel's Air Pump — Describe fully the structure and principles.

\* 8. Find the percentage composition of potassium nitrate.

9. too vols. of oxygen are mixed with 150 vols. of hydrogen and exploded. What volume of gas is left, and of which gas?

io. Find the formulæ of a substance containing copper 25.39%, sulphur 12.84%, oxygen 25.67%, and water 36.1%.

LATIN, PRESCRIPTIONS, POSOLOGY, &C. Examiner : J. T. Fotheringham. Time Allowed, Two Hours.

1. Expand into full Latin and translate :- Cap., Cochl., Ampl., ad. ij. vic., Lat. dol., O.

2. Name and define the component parts and sub-divisions of a regular magistral prescription.

3. What are the main organs of Excretion? Write short notes on their excretions.

4. Define, with examples where necessary, the following terms :--Idiosyncrasy, a Secretion, an Excretion, Endothelium, Myocardium, Systole, Peristalsis, Metabolism, a Ferment, Toleration.

5. Give dose of each of the following : — Ac. Tannic., Ac. Hydrocyan. Dil., Ac. Sulphuros., Extr. Bellad. Viride, Extr. Cinch. Liq., Extr. Taraxaci, Inf. Digitalis, Liq. Arsen. Hydrochlor., Liq., Morph. Acet., Liq. Trinitrini, Mist., Cretæ, Ol. Crotonis, Pil. Hydrarg., Pulv. Antimon., Tr. Nuc. Vom.

6. Discuss briefly the following terms : —Anodyne, Anæsthetic, Caustic, Stimulant, Narcotic.

### BOTANY. Examiner . A. Y. Scott, B.A., M.D., C.M.

### Time Allowed, Two Hours.

t. What do you understand by the following terms, viz. :--Cambium layer, Suberisation, Interstitial deposit; Adventitious roots; Diœcious, Gynæcium, Dichogamy, Æstivation?

2. What are the functions of a root? Describe fully a longitudinal section of a root. Distinguish between a root and an underground stem.

3. Describe what is meant by Phyllotaxy, giving the different varieties.

4. Describe the different varieties of Anthotaxy. Draw and describe the various kinds of Indefinite Inflorescence. 5. Classify fully, and explain your classification of Fruits.

6. Write brief notes on (a) Cell-wall,
(b) Protoplasm, (c) Chlorophyll, (d) Starch,
(c) Reproduction of new cells.

7. 8, 9. Describe fully the three samples.

A Ploneer House in the Manufacture of Pharmaceutical Proparations.

Fifteen years ago Messrs, Frederick Stearns & Co., of Detroit, established a Canadian office and laboratory at Windsor, Ont., in view of their rapidly increased trade with the druggists of this country. Ever since its establishment the volume of business has grown larger with each succeeding year, requiring additional equipments and enlarged space, and a visit to the laboratory shows that it is furnished with all the latest and best machinery and apparatus for the manufacture of all pharmacuatical preparations. The name "Stearns" is a familiar one to all druggists throughout the length and breadth of this country, and "Stearns quality" is everywhere a synonym for excellence.

This firm has just published an exceedingly valuable catalogue, which reflects the greatest credit on the compilers, and will be an ornament as well as a practical work of reference on the desk of every pharmacist.

The arrangement of the work is admirable, and the various tables of information are especially deserving of notice. Amongst those particularly commending themselves are tables of synonymis, poisons and their antidotes, percentage solutions, dosage, thermometric equivalents, metric and ordinary equivalents, together with various notes of reference, rules for diluting alcohol, proportioning doses, etc. The work is one that will be found equally useful for the physician as well as the pharmacist, and we have no doubt that the trade will appreciate the catalogue as a ready helper in the laboratory and dispensary, as well as a reminder of the pharmaceu tical preparations for which this house is noted.

Cypress oil is being used for whooping cough with good effect. On being sprinkled upon the pillow and sprayed in the room an abatement of the patient's symptoms sets in in a few days.

Cream of Tartar and pumice powder in equal parts remove stains from teeth.

### Prescriptions.

REGULATIONS AS TO THE OWNERSHIP, RENEWALS AND THE GENERAL DISPO SITION OF PRESCRIPTIONS IN ALL PARTS OF THE WORLD

### (Continued from last issue.)

### COSTA RICA.

In every drug store or private botiquin there shall be kept a book to copy prescriptions in numerical order without leaving any blank spaces, which copy shall be made at the time of filling the prescription. This book shall be preserved five years, counting from the day on which the last prescription is copied, and shall be presented whenever competent authority demands it. Before being used, this book shall be taken to the office of the faculty, and the president shall put and sign on the first page a statement which shall show to what drug store the book belongs, how many folios it contains, and in what condition he finds it, afterwards the secretary shall put at the top of each folio the seal of the secretary's office.

Every medicine dispatched should bear a ticket or label, which indicates the number of the establishment and its situation, the mode of administering the medicine (in conformity with the prescription), the price, and the number of the order, which must agree with that of the original prescription.

#### HONDURAS.

The law and practice in regard to disposition of physicians' prescriptions is for the druggists to copy them in books kept for that purpose. The original is returned to owner and the copy preserved indefinitely.

In regard to renewal of prescriptions, the law requires that physicians shall write "repeat" on the prescription. In practice, where dangerous drugs do not enter into the prescription, druggists often renew prescriptions without this formality.

#### BAHAMAS.

Physicians' prescriptions are required, when once filled, to be kept on file always—never destroyed.

A prescription can be renewed at any time at the pleasure of the druggist; and he can give a copy at any time he so desires.

### CUBA.

A store where prescriptions are compounded is called in Spanish farmacia, while a wholesale house is a drogueria. The latter need not be owned or managed by a registered pharmacist.

Physicians' prescriptions are filed, and some pharmacists also copy them into books. The files are kept for many years.

The druggist, by law, may retain the prescription paper when filled; he will, -however, give a copy if the customer is going out of reach of the pharmacy.

### WEST INDIES.

There is no law in regard to the final disposition of physicians' prescriptions when once filed by the druggists, but the general practice in respect of the same is to keep them on file as a permanent part of the records of the stores filling the same.

There is no law governing the renewal of prescriptions, but the general practice in respect of the same is that they may be renewed as often as desired. Copies may be furnished at the option of the druggist filling the same.

### ARGENTINE REPUBLIC.

Prescriptions not containing poisons are generally delivered to the customer after having been copied in a book kept for the purpose. Those containing poisons have always to be kept by the pharmacist for his own safeguard.

Druggists have nothing to do with prescriptions. The pharmacist gives copies of them if required to do so.

### BRAZIL.

Physicians' prescriptions are copied in a book kept for that purpose in the "pharmacia," but it is not obligatory to keep them on file after having been filled.

The renewal of prescriptions is in no way restricted to Brazil, except when they contain poison. In such cases the request of a physician is necessary. A repetition of the prescription in detail and the name of the physician who gave it must be plainly written on the label of the bottle or box containing the article prescribed.

### URUGUAY.

Prescriptions are kept on file, legally for three years, but they are also kept much longer by the druggists. The longer his file and the higher his running number, the greater his reputation as a good pharmacist.

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The prescription can be renewed at any time, and as often as wanted, unless it should have been revoked by the physician giving it. Druggists cannot give copies for other cases without the consent, verbal or in writing, of the physician giving it.

#### VENEZUELA.

Prescriptions are generally copied in a book for that purpose; these books are kept for an indefinite time.

Prescriptions may be renewed at will, if they do not contain morphine or similar poisons, in which case an order from physician is required. Druggists are permitted to give copies of prescriptions at any time and under all circumstances.

### DUTCH INDIA.

The druggist retains the original prescription, which must be kept on file for twenty years; he may give the customer a duplicate if it is called for.

Any prescription can be renewed on demand, without any formality, except prescriptions containing poisons, such as morphine, etc., when an authorization must be obtained from the prescribing doctor for a renewal.

### HONG KONG.

Regarding the disposition of prescriptions, practice follows the English custom of returning them to the customer.

### JAPAN.

Prescriptions for poisonous or astringent medicines must be kept by the dispensing druggist for ten years, and cannot be renewed, except by authority from the physicians who made them. There is no restriction as to copies of prescriptions. None of these provisions are at present enforced against foreign druggists in Japan.

### PERSIA.

The practice in regard to the disposition of the prescription is that it is generally returned to the person for whom it is prescribed when it has been dispensed. There is no accepted law or practice as to what right the druggist has in a prescrip tion presented to him. He can renew it or give a copy of it, if it happens to be to his interest to do so.

### AUSTRALASIA.

There is no law regulating the final disposition of physicians' prescriptions. Some pharmacists treat such prescriptions as their own property, while the usual custom is to return the prescription to the buyer, after taking a copy for file. I find no law regulating this practice.

### NEW ZEALAND.

Regarding the renewal of prescriptions and their disposition after once filled by the druggist, no law is in force, and how long the prescriptions are kept on file is a matter of choice.

### HAWAHAN ISLANDS.

There is no law in regard to the final disposition of physicians' prescriptions when once filled by the druggist, the practice being the same as pursued by houses in the United States.

There is no law governing the renewal of prescriptions. All the druggists recognize the American rule that the legal title to the prescription is in the patient, and will always return the original, keeping a copy for their files.

As a rule the druggists here refuse to renew prescriptions without the sanction of a physician. The ingredients of the prescription control this to a great extent.

### Points in the Preservation of Aromatic Waters.

F. E. Bigelow (Massachusetts Pharmaceutical Association) has recently confirmed by experiment the statement that the aromatic waters keep better when loosely stoppered than when tightly corked. Access of air preserves the fresh and agreeable effect of the water, but, when tightly closed, the odor partly disappears and becomes stale. The subsequent access of air will, however, restore the true odor.

Mr. Bigelow says it is well to remember that, though essential oils are volatile in the air, and subject to change, they are much less volatile than water, and consequently exposure cannot weaken aromatic waters. Moreover, light affects the oils much more than air, and is more to be avoided.

### Product Formed in Roasting Coffee.

H. Jæckle has conducted extended experiments on this subject. As material he used the condensation product from volatile substances carried off by means of pipes from the roasting kettles employed in large coffee-roasting establishments. He found in this acetone, furfurol, caffeine, ammonia, trimethylamine, formic and acetic acids. These normal products are present in variable quantities, caffeine, furfurol and acetic acid predominating. Caffeine is the only substance present peculiar to coffee. The odor and taste of roasted coffee are due to a number of substances, but particularly to furfurol. That a quite appreciable quantity of caffeine is lost in roasting was determined by repeated experiments .- Sudd. Ap. Zig.

# Scott's Emulsion Calendar For 1899

The Lion, Beaver and the Eagle: the emblems of Power, Peace and Prosperity. We do not see how there could be a better combination. Do you?

Cod-liver oil, the Hypophosphites, and Glycerine: the food and medicine found in Scott's Emulsion. A combination unequaled—as staple as salt, the standard preparation of cod-liver oil.

With such thoughts in mind we prepared our Calendar for 1899. We feel sure you will be greatly pleased with it. The cover is a most beautiful specimen of lithography, with all the richness and softness of coloring so characteristic of this art. Of course, the Lion, Beaver and Eagle, with corresponding flags, are the prominent features.

These Calendars are the handsomest and most expensive we have ever produced, and will be appreciated by your best patrons

At the same time do not forget the merits of Scott's Emulsion. We are doing our best to create a good demand for our goods. We only ask you to keep well supplied so no customer may be disappointed. We will send the purchaser to you. We hope he will ask for our particular preparation, for then we feel sure he will get it. While he is there we hope you may sell him something else also. Thus, while you are serving us, you see we may also serve you in a double sense.

Wishing you a Merry Christmas and a Happy New Year, we remain, Most sincerely yours,

SCOTT & BOWNE, Toronto, Ont., Canada.

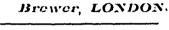
# Labatt's India Pale Ale

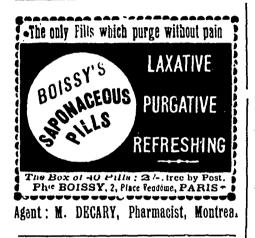
Is an excellent nutrient tonic. Physicians desiring to prescribe will hardly find anything superior to this.—IIealth Journal.

"We find that the Ale uniformly well agreed with the patients, that it stimulated the appetite, and thereby increased nutrition. The taste likewise was always highly spoken of. In nervous women, we found that a glass at bedtime acted as a very effective and harmless hypnotic." --Superintendent of large United States Hospital.

ORDER IT FROM YOUR MERCHANT AND SEE THAT YOU GET IT

# JOHN LABATT,

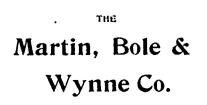




E would be very glad to supply the Drug Trade and Medical Profession with our Catalogue of Fine

# Pharmaceutical Specialties....

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



Wholesale Druggists, Winnipeg, Man.

"Ghateau Pelee" Medoc.

CLARETS

Cases 12 Qts., \$3.75. Cases 24 Pts., \$4.75. Equal to Imported Claret at double the price.

If your Wine Merchant does not keep OUR CLARET send in order direct.

### J. S. HAMILTON & CO. BRANTFORD, ONT.

General Agents Pelee Island Wine Company, Limited.

All Wholesale Druggists keep in stock and will supply retail druggists with

Wood's Phosphodino, Retails \$1. Cook's Cotton Root Compound, No. 1, Retails \$1. Cook's Cotton Root Compound, No. 2, Retails \$3.

Cook's Cotton Root Compound, No. 2, Retalls \$3. Many retail druggists sell dozens of these goods while others only sell a few boxes. The reason for these variations in sales are that one orders from his jobber in not less quantity than one dozen Wood's Phosphodine, one dozen Cook's Cotton Root Compound No. 1, and a half dozen Cook's Cotton Root Compound No. 2, and places the dozen cartons on his show case where they can be seen and exnuined by customers. The other orders a few boxes and hides them in a drawer behind his counter where they cannot be seen, or what is still worse, waits until a customer asks for the goods and then orders a box or two; thus one druggist sells many dozens, the other a few boxes or nome at all. These goods all afford a liberal profit to the retailer, and are hberally advertised in nearly all papers from Cape Breton to British Columbia. No retail druggist can make a mustake in ordering from his jobber at least one dozen each of these goods and placing them on his show case where they can be seen. Druggist's who have only purchased a few boxes and placed them in a drawer behind their counter will, by purchasing in quantity and placing where they can be seen, be surprised how quickly they will be sold. There is only one way to self evolt, and that is to keep a supply.



### Nature's Remedy



### AH-WA-GO

Positive Cure for Rheumatism Dyspepsia Sick and Nervous Headache Sallow Complexion Constipation Female Complaints, Etc.

Every Package Guaranteed. Retail Price 25c. All Wholesale Houses can supply you. Or write us for Booklets, Prices, Etc.

Manufactured only by

The F. E. Karn Go.,

128 Wellington St., TORONTO.

# Diseases of the Stomach.

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

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

## Winckler Antigastralgic Pills

COCAINE, PEPSINE, NARCEINE

Same direction as for the WINCKLER ANTI-GASTRALGIQUE.

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

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

MONTREAL M. DECARY. TORONTO: The Druggists' Corporation of Canada, Limited

### STIMULATING and REFRESHING LIQUEUR HOR.

KOLA, COCA and LIME GLYCEROPHOSPHATE A Stimulating Tonic. It Strengthens the Entire System.

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

WINCKLER, Pharmacist, Nontreuil, Near MONTREAL. DECARY.

TORONTO: The Druggists' Cornoration of Canada, Limited.

### The Care and Control of Prescriptions.

### By J. M. Goop, St. Louis.

Should the druggist be required by law to retain the original copy of every prescription compounded by him, and to furnish a copy only on request of the patient or of the physician ?

The following is a section of the Mis souri pharmacy law :

"Every druggist, proprietor of a drug store or pharmacist, shall carefully preserve all prescriptions compounded by him or those in his employ, numbering, dating and filing them in the order in which they are compounded, and shall produce the same in court or before any grand jury whenever thereto lawfully re quired, and on failing, neglecting or refusing to do so, shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than fifty nor more than one hundred dollars."

By the enactment of this section the lawmakers were inspired, not so much with the desire to protect the physician and the druggist, as to provide a means of detecting the unlawful selling of intoxicating liquors by collusion among the three parties primarily interested, the consumer completing the triangular arrangement; but, while the disreputable doctor and druggist may be punished by this provision of the law, others may utilize it as a shield and a defence. That all prescriptions should be carefully i.led and in such manner as will insure them from damage while rendering them readily accessible, druggists generally are agreed; but the thoughtful care exercised in this important branch of the busi ness is not uniform.

It is not the purpose of this paper to discuss methods.

By the wording of the section of the Missouri pharmacy law quoted, the druggist is directed to file the prescription handed him to be compounded. This means the "original," not a "copy," yet the primary object of this section was not to decide who, in the State of Missouri, shall be consid d the legal owner of this interestin and of paper.

The command to the druggist, in the words of the law, leaves no doubt as to the proper custodian of the prescription, and, as a logical deduction, decides the ownership. The model law which this association hopes ultimately to frame might appropriately contain such a section. Druggists may be made defendants in damage suits. For a successful defence, if the fact to be established is the correct compounding of a prescription, the presentation in evidence of the original is quite essential. The question as to the ownership of the prescription is an old one, but so long as it is an open and vital one the discussion is in order

A decision by one of the higher courts would be welcome. The inferior courts, in passing upon it, have contradicted one another.

No final decision is possible until there shall be a law for interpretation. Each state is at the mercy of its lawmakers. For a set of men in convention assembled to agree that certain matters should be controlled by law is simple enough. To secure the enactment of such a law by the state legislature is usually a very different matter. Legislation asked for by druggists is often regarded with suspicion. It is thought to be for the benefit of a class, the general welfare character of it not being usually recognized After all of our gratuitous service to the public, our altruism may still be doubted.

It is a mistake to suppose that all of the ills of which we complain can be remedied by legislation, but this thought need not deter us from effort in what we conceive to be the direction of improvement. It ought not to be difficult to convince physicians and patients that druggists are the proper custodians of prescriptions; but what stand shall the druggist take if there be no law b' hind which he can retreat? It is not unusual for a customer to say: "Please return that prescription with the medicine You may make and keep a copy of it if you wish to do so."

The druggist complies, and takes his chances on any future complications. To do otherwise would be to invite a contention which a politic business man studies to avoid. The practice o questing copies of prescriptions originals remaining in the possession. the druggist, is a growing one.

From his standpoint the practice of refilling prescriptions, unless so authorized by the physician, must be considered in this connection. If we concede it to be the patient's privilege to demand and receive a copy of a prescription prepared for him, then it is not possible for the physician to control the matter of its repetition, unless there be an understanding on this point at the time it is written. The druggist, if requested by the doctor not to give a copy of a prescription, will certainly see that his wishes are respected. It is the duty of the druggist, furthermore, to firmly decline to give a copy of a prescription except upon the request of the physician, if it should contain morphine, cocame, or any other potent and dangerous drug. By the exercise of tact and politeness, he can prevent the precipitation of an unpleasant scene. With these exceptions the patient is likely to receive a copy of his prescription when he asks for it, and he is at liberty to carry it from store to store and get " bids " on the cost of compounding it.

Physicians very properly object to the frequent repetition of their prescriptions without consultation with them, but yet an illiberal policy on their part is apt to estrange patients, and result in damage to their practice in the end. The doctor, above all others, must be a man of good judgment. He usually is politic, discreet, and tactful.

Evil consequences do undoubtedly often follow indiscriminate self-medication. By a mutual understanding between the two professions, either with or without legal enactments, physician, pharmacist, and patient would all be benefited.

Besides the Adanson's Gregorif, another tree has recently been discovered that yields tartaric acid. This is the baobab tree of Senegal, whose farmaceous pulp surrounding the seed has been found to contain nearly 2 per cent. of free tartaric acid, and nearly 12 per cent. of bitartrate of potassium.

Sunflowers in Malaria. — An eminent Indian medical officer is satisfied that the growth of sunflowers in malarial soil is better than eucalyptus as a preventive of malaria. The Government of India are making extensive experiments to determine this point.

A French doctor has invented an electric helmet, inside of which is a small motor that vibrates strips of steel, the motor making 600 turns per minute. This whizzing is supposed to cure ner vous headache, and put the sufferer to sleep.

Powdered Lanolin.—This is a German preparation composed of magnes, carb, zinc. oxide, or talc. with lanolin. The lanolin is dissolved in ether and the powder added; on evaporation the residue is powdered.

# DOSE TABLE

Giving all the Drugs of the British Pharmacopaia, 1898, tabulated according to their several doses.

(The figures represent grains for solids and minims for liquids.)

1/200 - 1/100 grains,	1/100-1/25 grains.	1/100-1/20 grains,	1/SO - 1/20 erains.	1/60-1/25 grains.	1/60-1/20 grains.	1/40-1,10 grain		· 5-20 grains of	r mininis.		5-30 grans of mining.	10-20 grains or nomins.	10-30 grains or minime.
Atropina. Atropin:e Sulphas. Hyoscin:e Hydrobr. Hyoscyamir:e Sulphas.		Phosphorus.	Homatropnæ Hydrobr.		l'hysostigmine Sulph. Eserine Sulphas.	Sodii Arsenate. Elaterinum.	leid Citric.	Antipyrin. Bism. Carb.	Potase. Carb. "Icdid. "Nitras.	Spt. Cinnam. <sup>44</sup> Lavand. <sup>44</sup> Menth. Pi	Amm. Brow. Liq Ext. Cimicifug.c.	Liq. Sodii Chlor. Palv. Scam. Co.	Acrt. Ipecac. * Scille. Ether.
1/32-1/16 grins.	1/24-1/S gruins.	1/20-1/10 grains.	1/20-1/5 prains.	1/20—1/2 crain:	1/16-1/4 grains.	1/10-1 2 grains.	" " Nittic Dil. " Nit. Hyd. Dil.	" Sulmit.	Pulv. Kino. Co.	" Myristica-	Magn. Calc. Levis. Carb. Pond.		Ferri, Carb. Sacch. Liq. Ext. Ergot.e.
Hydr. Iodid. Rub. ** Perchlor.	Antim. Tart.	Apomorph Mur. (Subcetaneously)	Arsenii lodid.	Pilocarpin Nitras.	Ferri Arsenate.	Elaterium.	" Phosphor. Dil. "Salicylic Sulph, Accm	" Oxid. Butyl. Chlor. Hydr. Chloral Hydr.	Solicinc Sod. Biber. " Iodid.	i i	Ol. Santal Flav. Potass. Bicarb.		** Potass. Sod. Salicylas.
1/10-1/5 grains,	1/S1/2 grains.	1/:1/2 grains.	1/4-1 grains.	1/4-1/2 grain.	1/2-1 ninim.	1/22 gr. or tr.	" Sulph. Arom. " Sulph. D.I. " Tartaric.	Jalapa. Kino.	" Sulphis. Spt. Anisi.	1	Sodii Benz.		Sulphonal. Vir Antim. ** Colchici.
Potas. Bichrom. Apomorph. Mur. (per ora.)	Morph. Acetas. "Mur. "Tatt.	Cocain Mur.	Ext. Belladon. " Cannab. Indic. " Colchici.	Argent. Nitras.	L'que: Atrop. Oleum Crotonis.	Cambogia. Codeina.	nm. Chl r. " Phosph.	Laq. Arsen. et 11yd. Iod Ol. Copaibæ. Ol. Cubel av.	" Camph. " Cajeput. " Cholrof.		i · Bicarb. · Bromid.		** Ipecae. Zinci. Sulph. (Emetic).
			" Nucis Vom. " Opii. " Physostic. " Stramonii.			Codeiræ Phosph. Fol. Dignalis. Menthol. Opium. Liq. Teinitrir.	10-40. grains or minims. Potass. Citras.	10-60 grains or minims.	Acid Hydrobron	20-30 minims.	20-40 minims. Ether Acet. (single dose.	20-60 grains or minims. Ergota	30-240 minims. Potass. Tart.
			" Strophanth. Podophyll, Revir.				Potass. Curras. Potass, Sulphas. Palv. Catechu. Co.	CalciiCarb. Pracip. Cretæ Præp. Lig. Morph. Acet.	Dilut.	(single dose.)	Spt. Amm. Ato.	7 Liq. Calcii Saech. Potass. Bitart. Pulv. Jalap Co.	
1/4-2 grains.	1/23 57. 07 m.	1/2-5 grains.	1-2 cr or m.	1-3 g. or m.	1-4 gr.	1-5 gr. or m.	" Cinnam. Co. " Arom. c Opio.	Liq. Morph. Acet. " " Hydr. " " Tart.		1 44	" Etheris. " Etheris Co.	2. " Rhei Co. 2. " Trag. Co.	4590 grains.
Cupri Oxyacetas (apper Cupri Sulph.	ndix) Oleum Anthemidis. " Anethi. " Anisi. " Carui. " Carui.	Caiomet. Thymol.	Antim Oxicum. Antim Sulphurat. Ext. Euonymi Siccum. Pil. Phosphori. Sodii Nitris.	Acetamlid. Acid Carbolic. Acid Carbol. Liquid. Ext. Nycis. Vom. Liq. Potass. Permang.	Ext. Aloes. Pulv. Elaterin Co.	Caffeina. Chloroform. Creosote. Ferri Sulph. Ferr. Redact.		Potass. Acetas. Pulv. Cretæ. Arom.			" Eth. Ni <sup>1</sup> . Sol. Ethyl Nitras.	Spt. Juniper. Sulph. Precip. Subhm.	Ext. Filicis Liq.
	<ul> <li>Caryophylli.</li> <li>Cajeputi.</li> <li>Coriand.</li> <li>Coriand.</li> </ul>		Zinci Acetas.	Scilla. Zinci Valerianas.		Hydr. c Creta Piumb. Aret.			<u>.</u>	30-60 grains or	minims.	And the second	
	<ul> <li>Cinnawon.</li> <li>Eucalypti.</li> <li>Juniperis.</li> <li>Lavandule.</li> <li>Limonis.</li> <li>Myristicæ.</li> <li>Menth. Pip.</li> <li>Piment.</li> <li>Rosmatini.</li> <li>Ferri Sulph. Exsice.</li> <li>Indoformi.</li> </ul>					Ol. Phosphoratam.	Aq, Laurocerasi. Aq, Laurocerasi. Copaiba. Cubeba. Ext. Cascar. Sag Liq. "Coca. Liq. "Glycyrr. Liq. Bis. et Am. Citr. "Calumbe C nc.	Magnes. Calc. "Carb. Levis. Oxymel Scillæ. Succus Hyoscyam.	<ul> <li>Ferri, Iodi</li> <li>Ferri, Iodi</li> <li>Pho</li> <li>Gair</li> <li>Strychn, P</li> <li>Hemidesm</li> </ul>	sph. a Et. hosph. i. '' Aurantii. '' Aurantii. '' Benz. Co. '' Buchu. '' Calumb.	" Guaiaci Amm.	Tr. Jaborandi.	Fr. Quinir.e. " Quin, Amm. " Rhei Co. " Senega " Senna Co. " Serpentance. " Sumbul. " Tolut. " Valeriance. " Zir giber.
1-10 grains,	2-4 prairs	2-5 C*. or m.	2-6 m.	2-5 gr. or m.	2-10 gr. or m.	3-6 gr.	" Chira'æ, Cone " Cuspar, Cone, " Hydrarg, Perch.	Syr. Aromat. * Aurantii. * Aurantii Flor.	" Scill.c. " Tolut,	" Catechu. " Chirette.	<ul> <li>Hydrast.</li> <li>Hyoscyam.</li> </ul>	" Quassire. " Quillair-	
Quin. Mur. Quin. Sulph.	Ex , Aloes Barb. Pil. Plumb. c Opio. Pil. Saponis Co.	Acid Tannic Aloc Barb. Aloc Socotr. Camphora. Colchecum Corm.	Acid Hydrocyanium. Dilutum.	Ev. Anthem. " Coloc. Co. " Cascar. Sag. " Ergota. " Gentian.	Cattein Citr. Cerii Oxalas. Pulv. Opii Co. (10%). Ol. Terebinth.	Antim. Pulv.	30-120 grains or minims	1 60-0		60—120 grains or minims.	120—240 grains or minims.	240-480 grain	
		Eucalypte Gum. Injection Cocain. Injection Morph. Jalap Resin Lithii Carbonas. Lupulin. Santorin.		" Hyoscyam. " Ialap. " Rhei. Liq. Arsenic Hydroc. " Arsenicalis. " Sodii Arsen. " Sirychn. Hydroc. Pil. Quin, Sulph.			Acid, Acet. Dil. Aq. Laurocerasi. Ext. Pareira Liq. " Taraxaci. Liq. Hydrogen Perox. " Serpent. Conc. Magnes. Sulph. Paraldehyde.	granda or in	inims.	<ul> <li>Salphur.</li> <li>cerin.</li> <li>Pepsin.</li> <li>hii Citr. Effer.</li> </ul>	Cusso (2 to ½ oz.). Ext. Sarrie Liq. Liq. Potass. Permang. Intus Digital. Sodii Sulph. (single dosr). Sodii Tartar.	<ul> <li>Calumbie:</li> <li>Calumbie:</li> <li>Caryophyllii.</li> <li>Cascarille:</li> <li>Chirette:</li> <li>Cinchone: Acid.</li> <li>Gent. Co.</li> </ul>	Magnes, Sulph, Effer, Mist, Ammoniaci, Mist, Amygdal, Creosoti, Cretee, Ferii Co. Quassie, Vin Quining,
3—8 grains.	3-10 grains or minime.	4—S grains.	5—10 grains or minims,		5-15 grains or minims.		8 Soda Phosph. "Sulphas.	Magn. Sulph.	r. Sod	v. Glycyr. Co. ii Curolart Effer.	120-360 Liq. Amm. Acet.	" Kramerix. " Quassia. " Khei.	240 900.
Kesin Scammon.	Ammon. Carb. Betanaphthol. Cal-ii Hypophosphit. Sodii Carb. Exsice. Thyroid (dry). Injection Ergot (Hypo. Sodii Hypophosph.	Colocynth. Co.	Alumen. Ferri et Am. Citr. Ferri et Quin. Citr. Ferri Phosph. Ferri. Tart. Injection Apomorph. (Ilypo.)	Acid Benz. <sup>44</sup> Borici, <sup>45</sup> Gallic, Ammoniacum, Ammon, Benz. Rals, Peru, Bals, Tolu,	Resin Guaiaci. Succus Bellad. Tinct. Aconiti. "Bellad. "Canthar. "Capsici. "Chiorof. et Mor	Pulv. Ipecac. Co. Ext. Kramerite. * Taraxaci. Pil. Ferri. Salol. Sodii Sulpho. carb. p. Terebenum.	Syr. Cascara Arom. "Chloral Hydr. Codeince. "Rhei. "Senna.	01. Morthux. Vin. Feri. 	Sp.	<ul> <li>Phosph. "</li> <li>Sulph. "</li> <li>Armoracize. Co.</li> <li>c. Conii.</li> <li>Scoparii.</li> <li>Taraxaci.</li> </ul>	120-480.	at the set of the set	Decoct. Alocs Co. "Granati Cort. "Hzematoxyli.
	Naphthol. Rhei Radix. Zinci Oxidum.	<ul> <li>Coloc. et Hyosy.</li> <li>Calomel Co.</li> <li>Galbani Co.</li> <li>Gambog. Co.</li> <li>Hydrarg.</li> <li>Iyccac. c Scilla.</li> <li>Khei Co.</li> <li>Scammon. Co.</li> <li>Scillæ Co.</li> </ul>	Lithii Citras. Liquor Strychn. Hydroc Musk. Pepsinum. Phenacetinum. Scammonium.	Calcii Chlor.	<ul> <li>Cocci.</li> <li>Colchici Sem.</li> <li>Colchici Sem.</li> <li>Croci.</li> <li>Digital.</li> <li>Ferri Perchl.</li> <li>Geleem Rad.</li> <li>Lobelia Ether.</li> <li>Nucis. Vomic.</li> <li>Opii.</li> <li>Podophylli.</li> <li>Scille.</li> <li>Stramon.</li> <li>Strophanthi,</li> </ul>	Potass. Chlor.	i oz2 oz. Infus. Cuspar. <sup>44</sup> Ergotz. <sup>45</sup> Scoparii. <sup>45</sup> Scoparii. <sup>46</sup> Lupuli. Liq. Magn. Carb. Mist. Olci. Ricini. <sup>47</sup> Senaz. <sup>46</sup> Spt. Vin Gallic	Liq. Calcis.	12.				

### The Study of Powdered Drugs.

The rapid advances which have been made in chemical knowledge, as exhibited in the large number of synthetic remedies which from time to time are put upon the market, appeal so strongly to the imagination of some pharmacists as to cause them to think that, because chemistry increases in importance, botany must necessarily decrease. A little consideration of the great number of remedies derived from the vegetable kingdom, and of the varying uses to which they are put in the practice of medicine, will at once convince the most sceptical that there is little fear that they will be displaced by synthetic products for many years to come. One need only allude to coca leaves, cascara sagrada, strophanthus, eucalyptus oil, and araroba, all remedies introduced into medical use during this generation, to show that there is no reason to doubt that many valuable medicaments still remain to be discovered for the healing of mankind. A more general study of plant analysis is likely to lead to much more fruitful and more immediate results, so far as remedial agents is concerned, than is the prosecution of synthetic chemistry. In saying this it is not intended to depreciate the latter, but there is reason to think that it is claiming so much attention as to interfere with the pursuit of systematic plant analysis.

In order to be properly equipped for the pursuit of plant analysis and for the control of the supply of crude drugs, as well as for the manufacture of efficient liquid and solid preparations from them, the pharmacist must possess a knowledge of botanical histology. Otherwise he will either have to rely upon the dealer from whom he obtains his materials or place his faith in external characteristics which are not infrequently modified by methods of collection and preparation for the market, as well as by the influence of varying soils and climates. And there is always a danger, as experience has shown, that a substance somewhat similar in appearance may be inadvertently collected in place of the genuine article. Above all it is desirable that the pharmacist should be able to judge of the purity of the powders which he almost invariably obtains from the manufacturing druggist. If the current of wholesale manufacturing pharmacy is not to entirely swamp the true art and craft of pharmacy the technical training of the pharmacist must rest upon the assured rock of science, and it must be acquired in a manner which will permit of him becoming interested in it beyond the mere desire to pass his examinations. This can be done if means are taken to provide a proper progression of his studies.

In the case of vegetable histology as applied to drugs it generally happens that the student-the examinee of the immemediate future-devotes at most a few hours to the subject, trusting to the chance of being able to satisfy the examiner, and is careless of any thought of the possible use of the knowledge in his future work. But even if desirous of conscientiously mastering the subject to the utmost of his opportunities, he too frequently becomes bored by the number of details of structure, the respective significance of which he is unable to appreciate because of the lack of that previous knowledge of general botanical histology which alone can bring them into proper perspective.

There can be no doubt that a pretty good acquaintance with the anatomy of flowering plants obtained by practical work with the microscope is an essential to the acquisition of a sound knowledge of the histology of drugs. In order to obtain this the student should first make himself thoroughly familiar with the various kinds of cells and vessels and the tissues which they form-epidermis, cork fundamental parenchyma, endodermis, pericycle, phloem, xylem, medullary rays, and pith as well as the varieties of stereom. He should then make himself acquainted with the anatomical characteristics of roots, stems, leaves, flowers, fruits and seeds as exhibited in the types found in the usual biological text-books, at the same time learning to recognize with case the different tissue systems both by means of their clements and the reactions the elements give with reagents. Then he should pass on to study in detail the various peculiarities of the different cells ; the varieties of thickening of epidermal cells, and the appearance of their walls in surface view; the forms and sculpturing of lignified ele ments, stone-cells, vessels, fibres; the frequency, characters, and disposition of hairs and glands; the nature and disposition of cell contents, crystals and their composition, starch and its size and form of granules, inulin, tannin, resins, and oils. This is beyond what is required for educational work in biology. It is to be remembered that in the use of anatomy as applied to the recognition of plants every detail is of value, just as every reaction in the identification of a chemical is of value, but in the latter case the knowledge is so well tabulated, because the subject has been so well worked, that it often suffices to apply a few crucial tests while the others are ignored. In the anatomy of plants, however, so much remains unknown that the anatomist dare not overlook a single character without running the risk of falling into error. It is not sufficient to learn a few distinctive features to be sure of recognizing a particular drug, for unless it agrees in every particular in accordance with botanical principles, there is every reason to conclude that it is derived from some other plant.

Following on, it is advisable, as far as time will allow, that as many plant structures as possible should be submitted to examination in order that some of the many abnormalities of plant structure should come under observation. This is of considerable importance because subsequently it will be found that the anatomy of many drugs does not at all conform to the type specimens of the ordinary biological class, and, unless the student is prepared by a course such as is suggested, he will fall into the error of ascribing undue significance to characters which may be ordinal or generic and he may overlook specific characters. Another reason why he should proceed beyond the study of type specimens is that he may learn something of the mortification which plant members undergo by secondary growth. Roots and stems when mature depart in the arrangement and character of their tissues very considerably from the typical structure of the first year. Cells are lignified, the epidermis disappears and is replaced by cork, deposits are formed, roots assume the apparent arrangements of stems, and other changes take place.

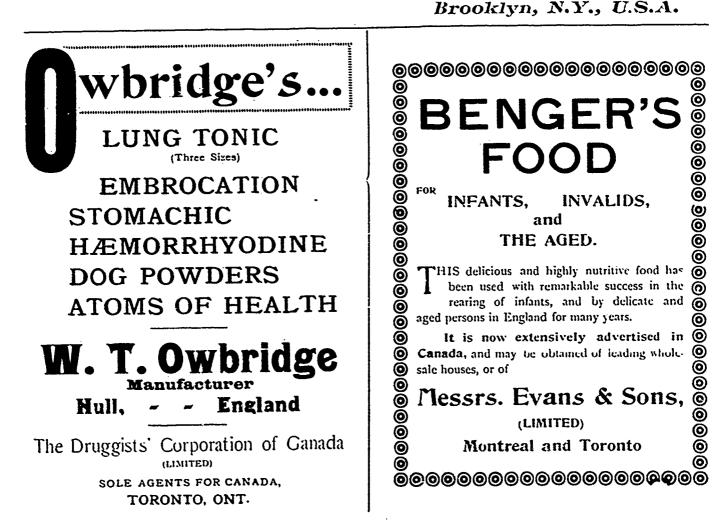
While pursuing these studies the use of the microscope and micro-chemical reagents and stains will become familiar. Comparatively few reagents are really requisite, but the action of each of them upon all kinds of tissue should be well understood. It will be found that some of them greatly assist in bringing into prominence other features than those for which they are specifically used. The most generally useful book for these who intend subsequently to follow up the study of the histology of drugs is Stras-burger's "Practical Botany," translated by Hillhouse. A much more useful work. in some respects is Gérard's "Traité Pratique de Micrographie," of which, unfortunately, there is no English translation. A somewhat smaller and a little more systematic English work on similar lines is a desideratum.-Pharmaceutical Invrual (Eng.).

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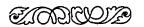
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### The Drug Trade in France.\*

In France pharmacists are divided into two classes, pharmacists of the first class, and pharmacists of the second class. The length of time necessary for the taking of a degree in pharmacy is six years for either class. Three years of this period are spent in the laboratory of a pharmacy, doing practical work as an apprentice. The remaining three years are spent in undergoing a regular course of study in one of the French schools of pharmacy

Before entering upon his collegiate course the applicant for the degree of pharmacist of the first class must have taken one of the following degrees. Bach elor of letters, bachelor of science, or one of three other degrees incident to the French system of education, for which there are no corresponding titles in the United States.

For the degree of pharmacist of the second class it is only necessary to produce a certificate of graduation from one of the French high schools. The course of study and the time and character of the examinations are the same for either class, except that for a degree for the pharmacist of the second class the graduate must be examined in the department in which he wishes to practise his profession. The French schools of pharmacy do not require a foreign student or gradu ate of pharmacy to follow a complete course of studies before awarding him a diploma. On the contrary, he is given credit for studies previously pursued, and permitted to come up for final examination after having attended the lectures on the most advanced branches. The Minister of Public Instruction, and not the faculty of the school, determines to which class the foreign student or graduate of pharmacy shall be assigned. To this official all applications have to be made, and to him full particulars regarding previous studies have to be given.

If the applicant be a graduate of a for eign school, more than one year's study is rarely exacted ; although, in this, much depends upon the college which originally granted the degree. The English, German, and Austrian colleges of pharmacy, for example, are held in high repute, and graduates from these countries can readily obtain their degree in France. Graduates of American schools meet with more difficulty.

As French students of pharmacy are required to have taken certain classical degrees before entering the college, foreign candidates for a French degree are obliged to furnish proof that they have taken equivalent degrees in their own country. In other words, a graduate of an Ameri can college of pharmacy, no matter how proficient, would not be given a degree in France unless he were a bachelor of let ters or presented certificates of an ad vanced education at home.

The number of pharmacies is not limited. A pharmacist of the first class can establish hims if in any city or commune by registering his name with the prefect or sous-prefet of the department in which the city or commune is located. A pharmacist of the second class can only engage in business in the department in which he received his diploma. If he desires to change the location of his pharmacy and remove to another department, he will first have to undergo another examination in that department and receive a new certificate of aptitude.

While the laws by which a pharmacist is governed are severe, and infractions render him hable to heavy fines, or per haps imprisonment, he is carefully protected from unjust competition. In France no one but a duly qualified apothe cary is allowed to sell, or offer for sale, any pharmaceutical compounds or preparations for the use of the sick, except in special cases. Although, according to the strict letter of the law, a pharmacist can only sell medicines ordered through a doctor's prescription by tolerance such articles as perfumery, fine toilet soaps, toothbrushes, etc., can be purchased in almost any pharmacy.

There are prescription drug stores, or pharmacies, and stores for the sale of crude chemicals (drogueries). It is not necessary to have a degree in pharmacy to open one of the latter, which deal sole ly in such articles as acids, borax, tartar, paints, oils, turpentine, camphor, etc. If the proprietors of these stores sell any pharmaceutical compounds or any of their drugs in medicinal weights, they are hable to a heavy fine. They can, however, self certain articles of a poisonous nature for commercial or industrial purposes by car rying out the regulations prescribed by law. The list of poisonous substances is as follows. Hydrocyanic acid, vegetable alkaloids and other salts, arsenic and its preparations, belladonna together with its extract and tincture, chloroform, hemlock together with its extract and tincture, cyanide of mercury, cyanid: of potassium, digitalis with its extract and tincture, tar

tar emetic, hyosciamus with its extract and tincture, nicotine, nitrate of mercury, opium and its extract, phosphorus, ergot, stramonium together with its extract and tincture, corrosive sublimate, cocculus indicus, and essence of absinthe.

The laws regulating the sale and use by druggists and manufacturers of the substances contained in the above list are practically as follows.

Anyone wishing to sell one or several of the poisonous substances will first have to make a declaration to that effect before the mayor of the commune and give the address of his establishment.

Chemists or manufacturers using one or several of the above-named substances in their business must also make a similar declaration. The declaration is entered in a register kept for the purpose and a copy of the entry given to the declarer. In case of the removal of an establishment a new declaration must be made.

Poisonous substances can only be sold or delivered to merchants, chemists or manufacturers who have made the above declaration. They may also be delivered to pharmacists, but only upon a written order signed by the purchaser.

All purchases and sales of poisonous substances will be entered in a special register numbered and signed by the mayor or a commissary of police. The entries are made immediately at the time of the sale. They indicate the nature and quantity of articles sold, together with names, professions, and addresses of the seller and purchaser.

Manufacturers employing poisonous substances in their business are also obliged to keep a register in which are entered the purposes for which the poisons are used.

The sale of medicinal compounds or remedies, the ingredients of which are

y known to the proprietors, is absoely prohibited in France. The law requires the inventors or owners of such remedies to communicate the receipt of their preparations to the Minister of Commerce, with a list of diseases to which they are applicable, and a statement of the actual trials to which the medicines have been submitted. The National Academy of Medicine then examines the composition of the remedies to ascertain if their administration might be dangerous in certain cases, if the remedies are good in themselves; if they have produced, or will still produce, beneficial effects on humanity, and the proper price to pay to an inventor of a remedy recognized to be useful. The recompense is based (1) on the merit of the discovery, (2) on the advantages which have been obtained, or which are hoped to be obtained, in curing human ills, (3) on the personal advantages which the inventor has already derived from the remedy, or may hope to derive from its adoption.

If the inventor is not satisfied with the amount allowed in payment for his invention, he has the right to appeal to another commission, which may be appointed to revise the work of the first, to rehear the parties interested, and to make another report.

The minister, from the conclusions of the two committees, and after having granted a hearing to the inventor, will make a decision, naming the amount to be paid. An agreement will then be drawn up between the minister and the inventor, and ratified by the conseil d'etat, and the secret published without delay.

By ministerial decrees a number of foreign medicinal preparations, after having been examined by the Ecole Superieure de Pharmacie at Paris have been allowed to be imported into France and placed on sale. Other foreign proprietary medicines and pharmaceutical compounds failing to receive the sanction of the above-named school cannot be introduced into this country. The names of these different compounds are all contained in a book published by the director-general of customs at Paris, from whom a copy can be purchased. The title of the publication is Notes Explicatives du Tableau des Droits de Douane, and the information respecting medicinal compounds will be found in volume II.

No American proprietary medicines are imitated in France, although some standard articles, like Scott's Emulsion of Cod Liver Oil, Carter's Little Liver Pills, etc., are put up in this country by or under an arrangement made with the American proprietors, in order to avoid customs duties and the cost of transportation.

In department stores no medicines of any kind are permitted to be sold, though perfumery, soap, glycerin, face powders, tooth wash, brushes, etć., can be bought in these establishments at prices very little in excess of wholesale rates.

The Bryant Press have printed 1,000,000 Almanacs for the Dodds Medicine Co., Toronto.

### Moistoning Powders for Percolation.

While expressing his conviction that no conscientious pharmacist will prepare tincures from fluid extracts, C. J. Wolfe (Amer. Drug.) recommends as preferable to that described in the pharmacopœia his own method of moistening the powdered drug preparatory to packing in the precolator. He takes a round tin can (or 5-ounce quinine bottle) and into this places the powdered drug, which must not fill it more than two thirds. The menstruum then is poured in gradua'ly, shaking the can from the bottom after each addition of fluid. Now the lid is placed on the can and the latter shaken up and down vigorously, with the result that in a short time the drug is evenly moistened throughout without the formation of objectionable lumps; although this may be more certainly obtained by throwing in also an old-fashioned glass stopper. After inspection of the contents replace the lid and set the can on a shelf in a warm place, where it may macerate the requisite length of time without appreciable loss of From this can the moistened alcohol. drug is really transferred to the precolator. The advantages of this method are obvious.

### Practical Hints on Advortising.

By CHARLES AUSTIN BATES, New York.

Whenever you propose successful modern advertising to the average representative of a business that has heretofore been little advertised, you are met with the statement that "this business is different from others. You can't apply dry goods methods to it. Bargain counter advertising won't succeed. You can fool women with that sort of thing, but we deal with men, and we must do dignified, straightforward advertising."

A man who says that shows that he hasn't thought deeply on the subject. He thinks that because you propose the use of progressive methods—1897 methods you must necessarily want to make a clown of yourself or that you want him to institute a bargain counter. The "bargain counter" seems to stick in his mind more than anything else. He says it with a sneer of ignorance. He doesn't understand the principle of modern advertising or modern store-keeping. He can't see that the principle of all advertising is the same, whether it be bargaincounter advertising or any other kind of advertising, the fundamental principle is the same. The man who has something to sell wishes to tell his story in a convincing way to the man who wishes to buy—or the man who ought to buy—or the man who would buy if he knew the advantages to be secured by buying.

A whole lot of these people say: "Buyers are intelligent men who cannot be fooled by bargain-counter advertising." Now, I wish to say, that I don't believe anybody is fooled by bargain-counter methods. They are not fooled simply because there is no effort made to fool them. The bargains that are placed on the bargain counter are genuine bargains. The storekeeper who will deceive anybody with his bargain-counter offerings would be making the most expensive blunder of his life. He would be doing the most foolish thing he could possibly do in his business.

The man who doesn't know anything about modern store-keeping sees the merchant advertising day after day offering special cut-price bargains. He doesn't investigate, he doesn't think, but he says immediately that such a state of things cannot exist, and that the merchant must be a liar and a thief. Nothing is further from the fact.

The principle of offering bargains is just as simple as A, B; C, but the bargains must be genuine if the result is to be satisfactory. Every man in business understands that it is worth something to get a new customer-that it is worth something to get a customer into his store. He is willing to have this done. The merchant has found that the best way of paying for new customers is to give them a real and startling bargain that they will remember. He knows, for instance, that if he advertises 50 cent silks for 10 cents a yard for a certain day he will crowd his silk department with buyers.

He knows from experience that the chances are ten to one that before the silk buyer leaves the store she will remember some other thing, she wishes to buy, and this she will buy at the fair and regular price.

D. Jayne & Son, Philadelphia, issue their almanacs in seventeen different languages.



(2801)

# The Hamilton Cash Register

IS THE

# National Cash Register

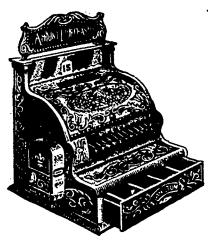
We Gu. "antee to Save You from \$5 to \$100 if you buy a HAMILTON CASH REGISTER

# **Detail-Adders and Total-Adders**

OF ALL KINDS. THE NEWEST THING IN CASH REGISTERS.

This 1898 Cash Register is the result of years of work and thousands of dollars spent in experimenting.

**T**HIS is a No. 35 press-down key totaladding register. It shows at a glance the total amount of the cash sales for the day. It has, in addition, a printing attachment, which, when the keys are pressed, automatically prints on a strip of paper the amount of each transaction. This strip of paper is accessible only to the proprietor and furnishes a permanent record of the business done in the store each day.



### Do not be Deceived

by the misleading advertisements of the National Cash Register Co., of Dayton, Ohio, and the misleading statements of their agents.

## The Hamilton Brass Manufac. Co.

manufacture all kinds of Detail and Total-adding Cash Registers as manufactured by the National Cash Register Co. When the National Cash Register Company's agent is quoting prices to you get a description in writing, and do not allow him to talk you out of it. Get the number of the Register he is quoting you prices on, then send the number of the Register with the description to the

### Hamilton Cash Register Co.,

and we will supply you with the same register in every respect from \$5 to \$100 less than the price quoted you by the National Cash Register Company's agent.

# HAMILTON CASH REGISTER

Manufactured by the

Hamilton Brass Manufacturing Co.,

### LIMITED

HAMILTON,

CANADA.

## Formulary.

IMPROVED IQDINE OINTMENT.

Use the least quantity of water to effect a colorless solution, then add :

> Lanolin.....dr. 6. Almond oil .....dr. 2.

### BROMOFORM RUM.

Bromoform is making rapid headway in the treatment of lung troubles, etc., but its administration has hitherto been handicapped by its causticity and disagreeable taste. Matthieu and Richaut recently recommended "bromoform water" (in the Munchener medicinisch Wochenschrift) as a pleasant preparation of the medicament, and now comes Gay, in The Therapie der Gegenwart, and recommends "bromoform tum" as a substitute, especially in the treatment of children. It is prepared as follows :

> Bromo form ..... 12 parts, Chloroform ..... S parts, Rum ..... 1,200 parts,

### Mix, and agitate sharply.

For children under 2 years the dose is 15 to 20 drops; from 2 to 4 years, 20 to 30 drops; from 4 to 8 years, 30 to 40 drops. Adults may use from 2 to 3 drams. -National Druggist.

### \_\_\_\_\_ ``

### WINE OF CASCARA SAGRADA.

| Bitterless fluid extract of cascara |
|-------------------------------------|
| Sherry wine                         |
| Simple syrup I so parts.            |
| Curacao liqueur                     |
| Mix let stand, and filter.          |

Mix, let sland, and litter.

#### MARKING INK FOR BALES.

Shellac 2 parts by weight, borax 2, water 25, gum arabic 2, Venetian red sufficient to color.

Boil the shellac and the borax in the water until solution is complete, add the gum arabic, and take the vessel from the fire. When the solution has become cold, add sufficient Venetian red to bring it to a suitable consistency and color. This ink must be preserved in a glass or earthenware vessel.

If a color other than red be desired, substitute for it lampblack, ultramarine blue, or a mixture of ultramarine blue and chrome yellow.

Ccchineal, pulverized fine.....2 ozs. Cream of tartar.....2 ozs. Mix and add

| Boiling water.                    |                          |
|-----------------------------------|--------------------------|
| Let stand for a neutralize by add | quarter of an hour, then |

Carbonate of potash. ..... . 1 oz. After the neutralization add

Alum (powdered) ...... t oz. Gum arabic (powdered) ..... t oz. Starch ..... 2 ozs.

Mr. W. J. Sanborn contributes to *The Painters' Magazine* the recipe for a paint solution (emulsion paints) for which he claims great wearing qualities. It is as follows:

The four solutions are prepared in separate vessels. Add the lye to the limewater solution, pour in the glue water, and finally add the zinc solution. Add water to make a total of twenty gallons, and stir in the whiting.

#### FRENCH PERFUMERY POWDERS.

### POUDRE DE RIZ.

#### Rose.

|                     | Patts. |
|---------------------|--------|
| Orris rice flour    | 4000   |
| Musk rice flour     | 5000   |
| Clove rice flour    | 2000   |
| Orzis tale          | 4000   |
| Rice flour.         |        |
| Geranium oil (rosé) |        |
| Musk tincture       |        |
| Bergamot oil        |        |
| Rose oil            |        |
| Sandalwood oil      |        |
| Rosewood oil        |        |
| Magnesia            | 1000   |

#### Almond Blossom.

|                       | Parts. |
|-----------------------|--------|
| Tonka talc.           | 3500   |
| Vanilla rice flour    | 3500   |
| Orris rice flour      | 2000   |
| Magnesia              | 700    |
| Oil of bitter almonds | 4      |
| Geranium oil (rosé)   | 2      |
| Bergamot oil          | 10     |
| Mask tincture         | 4      |

#### Ylang-Ylang.

|                    | Parts. |
|--------------------|--------|
| Musk rice flour    | 4000   |
| Vanilla rice flour | 2000   |
| Orris rice flour   | 3000   |
| Magnesia           | 1000   |
| Vlang-ylang oil    | 10     |
| Orchidez oil       | 5      |
| Rose oil           | 2      |
| Neroli cil         | 2      |
| Musk tincture      | 1      |

| Furn   | lyptus.       |
|--------|---------------|
| с, чса | <i>yyuu</i> . |

|                       | Patts.  |
|-----------------------|---------|
| Musk rice flour.      | 500     |
| Almond blossom powder | 500     |
| Ortis rice flour      | 250     |
| Clove rice flour      | 250     |
| Tonka nce flour       | 250     |
| Vanilla rice flour    | 250     |
| Magnesia              | ΰo      |
| Eucalyptus oil        | 15      |
| Geranium oil          | 15<br>5 |
| Bergamot oil          | 4       |
| Neroli oil            | t       |
|                       |         |

Noisette,

|                 |    | Parts. |
|-----------------|----|--------|
| Wheat flour     |    | 1500   |
| Orris powder    | •• | 700    |
| Soap powder     |    | 1000   |
| Bergamot oil    |    | 20     |
| Musk rice flowr |    | 25     |
| Neroli oil      |    | 3      |
| Potato starch   |    | 700    |

The scented rice flours are prepared from :

| Orris :   | Rice       | flour, | 10; | orris tincture, | r part.      |
|-----------|------------|--------|-----|-----------------|--------------|
| Musk :    | <b>ć</b> 1 |        | 10; | musk *          | 1            |
| Clove :   | 44         | 44     | 10: | clove oil,      | 1 "          |
| Tonka :   | 4.4        | **     | 10: | tonka bean tin  | ct , + part. |
| Vanilla : | ••         | ••     |     | vanilla *       | · · · ·      |
|           |            | D      |     | wan and Saa     |              |

#### Perfumer and Sapanifier,

### MEDICINAL MOUTH SOAP.

| Medicinal soap         | 30 gms. |
|------------------------|---------|
| Glycerin               | 30 gms. |
| Alcohol (90 per cent.) | 15 gms. |
| Salicylic acid.        | i gm.   |

Peppermint water and coloring matter as required.—Zanhrzt. Rund, Pharmacentical fournal.

### EMULSION OF COD LIVER AND CHOCO-LATE.

| Decoct. carrageen    | (2:100) 150 parts |
|----------------------|-------------------|
| Ol. jecor. aselli .  | 240 parts         |
| Glycerin             | 60 parts          |
| Chocolate powder     | 30 parts          |
| Tinct. vanill., q.s. |                   |

The chocolate powder is mixed with the mucilage and heated until a smooth mass has formed. After cooling, the codliver oil is added and the mixture beaten with an egg whisk.—Zeit. d. Allg. ccst. Apoth. Ver., Pharmaceutical Journal.

### FORMALIN MOUTH WASH.

The following recipe is due to Ganz. Fifty grammes of 40 per cent. for-

maldehyde are dissolved in 1,000 grammes of spirits, add-

| Tincture of benzoin | 200 gms. |
|---------------------|----------|
| Tincture of mytrh   | 50 gms.  |
| Oil of peppermint.  | 3 gms.   |
| Anise oil           | 2 gm/.   |
| Cassie oil          | I gm.    |
| Cinnamon oil        | 15 drops |
| Cochineal powder    |          |

The whole well stirred and filtered.-Deutsch. Amer. Apoth. Zeit.

# Photographic Notes.

### Montreal Camera Club.

About forty members of the Club attended the neeting at the Club rooms, No.4 Phillips Square, on Tuesday evening Dec. 6th. After the business had been got through the chairman called on Mr. H. R. Cornish, the representative of the American Aristo Co., to give his demonstration entitled "Aristo Platino with single Toner."

Mr. Cornish had brought a number of

SKY-BLUE TONES ON COLLODIO-CHLORIDE PAPER.—That useful little publication, *Helios*, says that these tones may be obtained by deep printing and then washing for seven or eight minutes in several changes of water, then fixing for ten minutes and washing for the same period, afterwards toning in the following bath :

Lead nitrate .... 75 grams. Ammonium sulphocyanide..... 40 " Chloride of gold and potassium. 0.5 " Water ..... 1000 C.c. sulphates give no precipitate with barium chloride, but on warming barium sulphate slowly separates, and chlorine is evolved. Ammonium persulphate is very soluble in water, but aqueous solutions gradually decompose, a sulphate being formed and oxygen liberated. It is a powerful oxidizing agent, organic coloring matter being bleached by it and alcohol oxidized into aldehyde. The salt is used by rubbing a little of the moistened powder on the fingers, and then rinsing off with water. It will be remembered that potassium persulphate (KSO<sub>4</sub>) was introduced some time ago under the name of anthion,



prints, which he toned with the single Toner, together with some that had been brought by the members, explaining the different points very clearly as he proceeded. The results were very satisfactory and considerable valuable information was gained by all present.

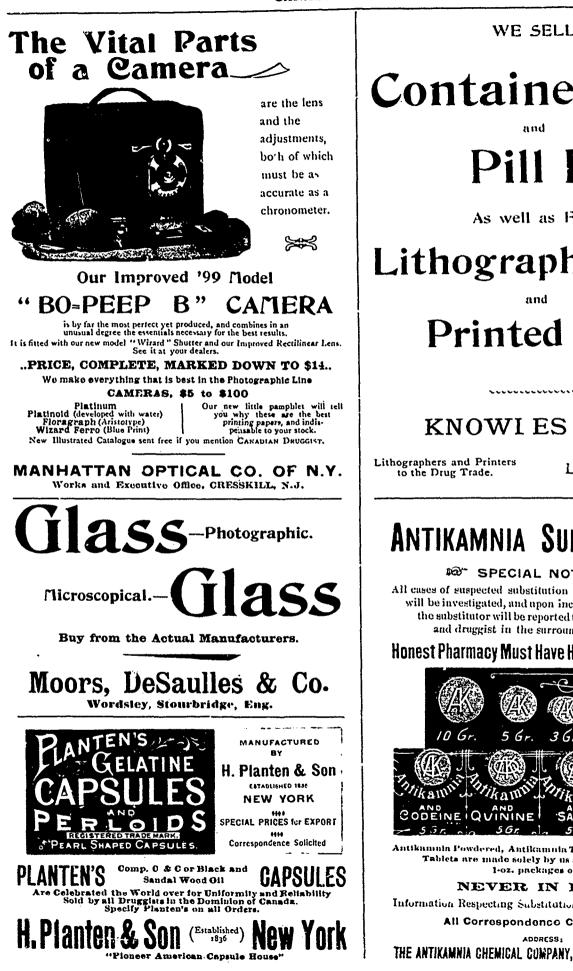
The meetings of the Club, which are held every Tuesday evening during the winter, will be particularly interesting this month as the sets of slides from the American Lantern Slide Interchange are of such a high standard that an enjoyable evening is assured.

#### Scene in Rosedale.

The prints should remain in this bath till the desired tone is obtained, and finally washed for about fifteen minutes.

PERSULPHATE OF AMMONIA is being used for removing pyro stains from the ingers, and was originally recommended for that purpose by Liesegang in the German Amateur Photographer. It is prepared by the electrolysis of a satur ated solution of sulphate of ammonia. Crystals of the persulphate form at the anode, the formula for which Hugh Marshall gives as AmSO<sub>4</sub>. The peras a "hypo" eliminator. It is curious to note that the potash salt is only slightly soluble in water.

Dry-plates, says a writer in *The Optic*ian, should not be stored at the top of a room lit by gas, as warm, impure air has a distinctly bad effect on them. Damp, again, is liable to set up bacterial decomposition, a dry-plate in a moist atmosphere being an almost ideal culture-plate. Heat exercises not only a deleterious effect on plates, but, by acting on the packing-



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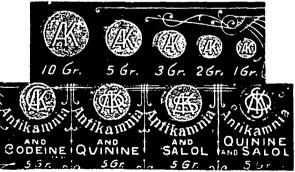
LONDON, ONT.

# ANTIKAMNIA SUBSTITUTION

### 10 SPECIAL NOTICE - 60

All cases of suspected substitution called to our attention will be investigated, and upon incriminating evidence, the substitutor will be reported to every physician and druggist in the surrounding territory.

### Honest Pharmacy Must Have Hunest Competition.



Antikammia Powdered, Antikammia Tablets and Combination Tablets are made solely by us and are put up in 1.oz. packages only.

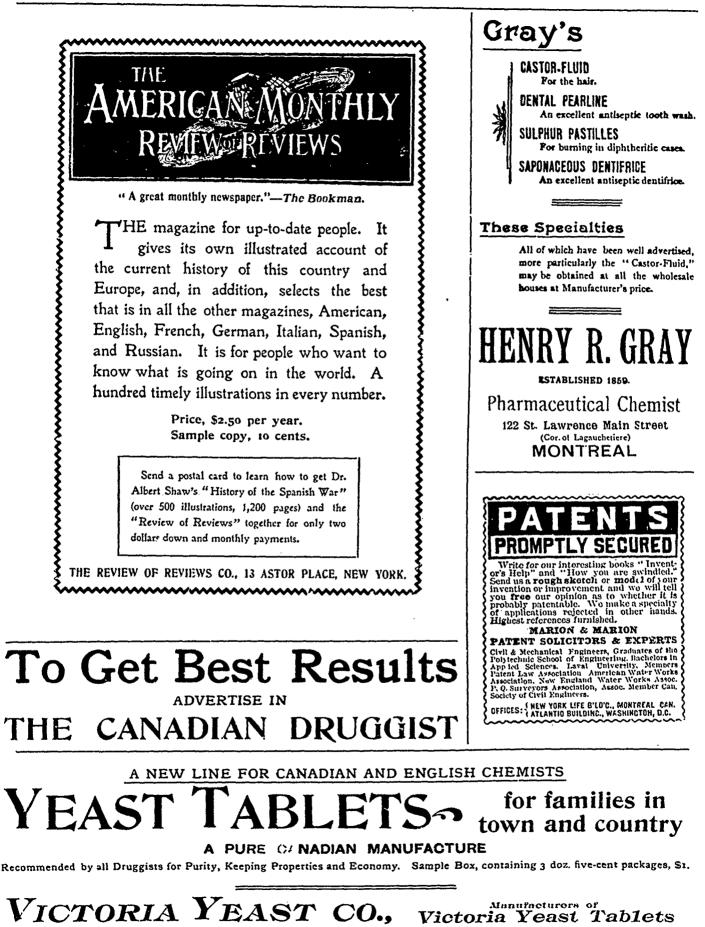
### NEVER IN BULK.

Information Respecting Substitution Thankfully Received.

All Correspondence Confidential.

ADDRESS

Si. Louis, No., U. S. A.



79 ESPLANADE STREET EAST, TORONTO, ONT. Agents for Great Britain and the Colonies-Imporial Produce Co., Toronto and Liverpool papers and box, give rise to emanations which sooner or later find their way through the purer inner wrappings and attack the plates.

Another developer, for the suggestion of which we are also indebted to MM. Lumière and Seyewetz, of Lyons, is the following, which is very valuable for copying of line subjects, such as black and white drawings, engravings, etc. For ordinary Landscape work it is almost too clean in its action, giving negatives so full of contrast that one cannot obtain circumstances of ordinary contact. By the use of his combination solution for fixing and toning, and which, in addition, completes the photograph with greater effect, a considerable degree of economy is assured, and what is of immense importance in general photographic manipulation consists in the fact that the employment of the dangerously poisonous sulphocyanide of ammonium becomes unnecessary by the application of his combination solution. The great active principle of the solution—as composed of appropriate proportions, varying for and then allowing it to cool the abovenamed ingredients are incorporated with the fluid thus treated in requisite proportions. The mixture is now agitated, and, after allowing it to subside or clear, the insoluble sediment is filtered off, and the solution is now complete for its intended functions. The prints treated with it are absolutely permanent, whereas those treated with other existing solutions will fade in probably less than two years. Another of its great properties is that the whole of the solution, once prepared, can be entirely used up without adding



Scene Near Toronto.

good prints from them. The chemical action that goes on here is practically the same as with acetone :

| Hydroquinone                    |
|---------------------------------|
| Sodium sulphite 1.5 g.          |
| Formaldehyde (commercial 40 per |
| cent. sol.)                     |
| Distilled water 100 C.c.        |

A NOVEL TONING AND FIXING PRO-CESS is due to A. E. Wade, who claims that it both improves the appearance or finish of photographic prints and their resisting capacity to time, in being exposed to vitiating atmospheric conditions in storage, etc., and under various other specific purposes, of chloride of gold, nitrate of lead, nitrate of potash, hyposulphite of soda, flowers of sulphur, and quicklime respectively—is secured by the employment of ordinary water treated by the following special process, viz, the water while in a boiling condition is saturated, or acted upon till saturated, with smoke obtained by the burning of ordinary bituminous coal, or the smoke may be obtained from anthracite or other carbonaceous fuel. After passing the smoke through the boiling water until it becomes thoroughly saturated with it, to its strength, and at the same time the solution thus prepared will remain fit for use at any time during a number of years. Finally, one of its valuable qualities consists in the fact that no previous washing of the prints is required in using it, and besides, it absorbs silver from the paper, which, where previous washing is necessary, would produce a waste, whereas in this process it will help to enrich the solution and to considerably improve the tone of the picture treated with it. — British *Journal of Photography*. 

# **Optical Department**

In charge of W. E. HAMILL, M.D., Principal of the Optical Institute of Canada,



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

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

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

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

L.A.C.--I have an old gentleman aged 70, a cabinetmaker, who wants glasses to work with so that he can see his work plainly at from 20 to 30 inches-V each  $eye = \frac{2}{50}^{0}$  with  $+ 2.00 = \frac{2}{50}^{0} + .$  I gave him a pair that was just the thing for 30 inches, but they were misty at 20 inches. Then I gave him a pair for 20 inches, and they were misty at 30 inches. Then I tried a pair that made everything plain at 25 inches, but they were not satisfactory. I would be glad for any suggestion which would enable me to fit the old gentleman so that he might continue his avocation, for otherwise he is hale and hearty, and appears able to earn a good day's pay for many a year yet.

Answer.—It appears to us that a bifocal for working in would solve the problem. The upper segment for 30 inches and the lower segment for 20 inches. Between these two points he would have suffi ciently good vision to enable him to do his work.

He would, of course, require another pair for reading with a shorter focal distance, as 20 inches would be too great a distance for reading ordinarily. At 70 a

person has lost all their accommodation. and for clear vision of any object at a finite distance it is evident the glass would have to do all the work, as it could receive no aid from the acc. For the reading pair we would suggest the+ glass, which gave him most distinct V, at the distance he prefers to read, which will likely be about 12 inches or 13 inches. In fact in an old presbyope without any acc. it is necessary that he should have as many pairs of glasses as there are places which he desires to see clearly at. When an optician is confronted with one of these cases, he must rake up his knowledge of the acc. of the eye, and remember how much acc. is present at any given age, and how much, if any, is present that he can use with benefit. There is no class of cases which calls for so much exercise of common sense, based on optical knowledge, as these, and shows once more that presbyopia is really the most difficult yet apparently the easiest to fit. I have found inestimable value and help from Princes Rule, made by Hardy & Co., of Chicago, and sold by the Montreal Optical Co., in overcoming the difficulties in fitting presbyopes, and I advise every optician to invest \$1.50 in the same, which, if they do, they will thank me for the suggestion. It is easily understood by anyone, but, like any other instrument, requies sufficient examination to become familiar with its use, and to get from it its best aid. I have inpeatedly in these columns written at length on presbyopia, because, if there is one subject which an optician is weak on, it is the correction of "old sight," and yet the merest novice in optics thinks that he is an expert in fitting presbyopes because he can so easily satisfy the customer at the time of sale, but after a day or two of use of the glasses how often does your presbyopic customer return with some complaint, and you try another pair, and so on, until perhaps you strike the lucky number.

This should not be, and to avoid it the first essential for any optician is to thoroughly understand the acc. and apply this knowledge in every case, for no two cases are alike.

Iodol Collodion.—A solution of one part iodol in nine parts collodion is suggested for crysipelas and other complaints.

### **Examination in Optics.**

At the first examination held by *The* Spectacle Makers' Company, of England, for diplomas held recently, the following were the questions set at the written exmination :

1. How would you determine the focal length of a simple biconvex lens with faces of equal curvature? Give all the practical methods you know of.

2. In what way is the position of the principal focus of a lens dependent upon the choice of the curvatures? Illustrate your answer by reference to the positions of the front and back foci of plano-convex lens of  $\pm 20$  D. Does it matter which surface you turn towards the source of light as regards definition?

3. Are two lenses, say for example, a + 3 D S and a + 5 D S (placed to gether behind one another in a trial frame), exactly equivalent to a single lens (in this case a + 8 D S) whose power is numerically equal to the sum of their separate powers ? If not, why not ?

4, What proofs are there that the human eye is not achromatic? What kind of combination of lenses would be required to correct its chromatic aberration?

5. A person requires, for the R eye only,—6 DS for distance and -3 DS for reading, but only wants one pair of spectacles. State the various ways in which this can be managed. Which method do you prefer?

6. A prescription is given you as follows. -3 DC axis horizontal  $0 \pm 1.5$  DC axis vertical R and L. State the different methods of working such a lens and give reason for your choice of curves.

7. What are pebble lenses? State the relative advantages of pebbles over glass, or *vice versa*. How can you distinguish between them?

8. An emmetrope, aged 60, has had his lens removed for cataract. What glass would you give for reading, and what for distant vision? Could he see clearly with either glass at a metre?

9. A boy aged 12 has vision =  $\frac{6}{12}$ , but with a concave lens of 1.25 he has vision  $= \frac{6}{5}$ . What tests would you employ to ascertain the nature of his defect?

10. An oculist has prescribed for a man aged 60, for distant sight,

$$\frac{-1.5 \text{ DS}}{-2 \text{ DC axis horizontal}}$$



L. G. AMSDEN, PRINCIPAL.



### New Year's Announcement

The unrivalled success of our classes and students during the past year places the Canadian Ophthalmic College in the front rank of Optical Institutions on the American Continent.

We are already receiving applications for our New Year's class, which opens on

### . . January 16th, 1899 .

Intending students should apply at once.

# COHEN BROS. Toronto, Ont.



Next Class in OPTICS and REFRACTION commences on January 10th, 1899.

A Diploma from this Optical Institute is always an evidence of the ability of its possessor to intelligently and satisfactorily fit spectacles, and students are welcome to remain until they have mastered the subject.

The record of our students is that in from one to two months they make enough profits to pay for all their time and expenses while at the Institute.

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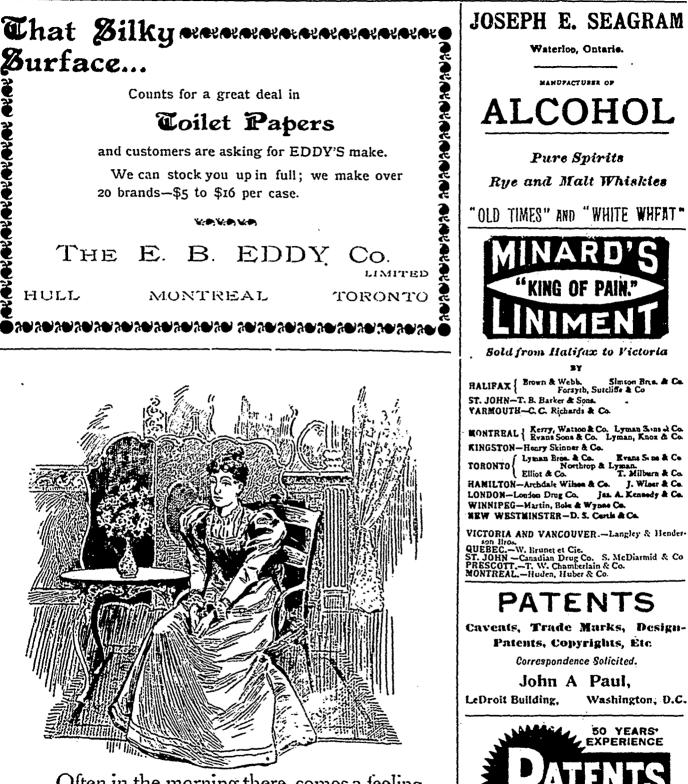
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Often in the morning there comes a feeling of weariness, indescribable; not exactly ill, nor fit to work, but too near well to remain idle.

A Ripans Tabule taken at night, before retiring, or just after dinner, has been known to drive away that weariness for months.

He requires glasses for about 15 or 16 in. reading distance ; write the formula.

11. A youth, aged 12, sees best with - 14 D S R and L. Would you give him this correction on your own responsibility, and if not, state your reasons?

12. A boy, aged 10, has vision  $=\frac{20}{46}$ , and with -2.5 DS he sees  $\frac{20}{36}$ , but on testing his P.P. is found to be at 12 c.m. What is probably his defect, and give your reason?

13. What do you understand by the terms "Amplitude of Accommodation," and "Range of Accommodation "? Illustrate these terms in the case of an emmetrope aged 20, a myope of 3DS aged 20, and of a hypermetrope of 3DS of the same age. Where would the P.P. be situated in each case?

14. Explain the importance of having spectacle lenses correctly centred. What would (roughly speaking) be the effect on a customer having his spectacle lenses of -10 D S, each decentred 4 m.m. in wards, supposing that he had binocular vision?

### Acquired Hypermetropia

B) W. BOHME, NEW ORLEANS, I.A. Written for The Optical Journal. (Continued from page 200.)

Now let us see where Donders made a mistake. He was the first who insisted on the absolute necessity of separating the two factors, refraction and accommodation, and promoted the following theory upon those premises. He first defines the normal eye, which is free from any organic refractive defects ; its gradual decline manifests only the deficit of accommodation, called presb; opia. He then outlines the errors of refraction: 1. Myopia, caused by excessive refraction. 2. Hypermetropia, by deficient refraction. 3. Astigmatism, by an inequality of refractive power in the different meridians of the eyeball. According to his theory, therefore, presbyopia is confined to the existent state of accommodation, and as the emmetropic or normal eye is free from any original refractive defects all phases of the declining accommodation have to be counted as manifestations of the commencing or, later on, advanced presbyopia. But Donders did not stop at this simple deduction, he abruptly turns

around and states that this is only true as far as the near point is concerned. He says, "the far point also begins in the normal eye to recede somewhat about the age of fifty, so that the eye becomes slightly hypermetropic," and the proof of his arbitrary assertion is *that distant vision is now improved by convex glasses*.

How much more simple it would be to limit the presbyopia of a normal eye to the decline of accommodation, thus forming the first division of general eye defects, which later on would possibly be combined with the symptoms of second sight, or with the unavoidable asthenopia. All other defects, either single or mixed, would then form the second grand division, *i.e.*, the organic errors of refraction, which in the length of time will be combined also with the first division in the different complicated errors, contrary to presbyopia, which cannot contract any defects of the second division.

Donders' theory was readily accepted by many distinguished writers, who called it acquired hypermetropia, to discriminate it from the true, origin alone. Recently some writers have, accidentally or purposely, ignored this quite unnecessary distinction between the near and far point of a presbyopic eye. The defenders of this theory may claim that the normal eye loses all power of accommodation at the age of 65 years, and that such an eye should then be counted among those suffering from a stationary refractive defect ; but Donders, himself, admits that distant vision has to be corrected very often at the age of filty, when, according to his diagram of accommodation, the eye still enjoys some remaining power of it.

The total decline of accommodation at the age of 65 years can be considered only as an exception, and not as a rule, because every practitioner knows that many of his customers require stronger glasses, after that age, than they were using up to then, thus clearly showing that they had yet to lose some part of their accommodation, which would have been impossible if Donders' theory was correct.

I think there is no good reason to call the final development of presbyobia by any specific name, especially not by the name of "acquired hypermetropia." If hypermetropia is an error of refraction, and presbyopia the decline of accommodation, we should not mix them up and confuse the student with a "thousand and one" ophthalmic terms without necessity. "If our text-books were judicionsly corrected and purified of all vague theories, it would not take a life time to master all the difficulties of one specific branch, but would also allow the student to devote part of his time to the general study of science, besides being an expert in his own particular profession.

### Amongst Our Advertisers.

Smith's Triangle Baby Food, advertised by Messrs. Archdale Wilson & Co., of Hamilton, has been thoroughly tested, and has proved an unqualified success. It contains everything necessary for the successful raising of children, and in this respect is far superior to many of the foods on the market, most of which are lacking in one quahty or another.

Triangle Food is put up in very hand some one-pound triangle cans, and re tails at 25 cents.

Increase of business has forced the Hamilton stationery firm of Buntin, Gil lies & Co. to enlarge their premises. As there was no room to spread out, they had to add an additional storey to their building. This space was very much needed, but the firm expect now to be able to carry on their fast-increasing business with more convenience than in the past.

### Gems of Fine Art.

Tutti Frutti gum and gems of fine art seem to be a happy combination. The Adams & Sons Co. have received an importation of gems from the French masterpieces which they are giving out as premi ums to the retailer who handles their chewing gums. The one they are showing in our advertising columns this month is entitled "The Betrothal." The Adams people are putting out some handsome printed matter, showing illustrations of the whole set of six subjects, which is well worth sending for.

### Optical Instruction.

The Canadian Ophthalmic College, whose announcement appears clsewhere in this issue, have just completed a most successful year. Their graduates, both in point of numbers and efficiency, com pare favorably with similar institutions in the United States.

Messrs. Cohen Brothers claim for the college, as well as for their business, that it is a purely Canadian institution, and, with the improvements complete in the lecture-room now under way, predict still greater success for 1899

Mr. L. G. Amsden, who has been asso ciated with the college since its foundation, and whose reputation both as a teacher and a practitioner is sufficient guarantee of its standing, still remains at its head, and students can count upon receiving the same conscientious instruction that has been hitherto characteristic of the Canadian Ophthalmic College.

### Photographic Magazines.

The December numbers are of especial interest in most cases, and the fact that photography is now, not merely a summer vocation, but is equally adapted to all seasons, lends an additional zest to the enjoyment of the holiday season, and encourages the work of indoor photography in this climate.

#### THE PHOTOGRAM.

"The Holy Shroud of Turin" is reproduced in two supplements to the Christmas number of The Fhotogram. The larger supplement is 20 in. by 51/2 in., and is intended for framing. The Holy Shroud has been preserved for centuries in Turin, is now in the Chapel Royal of Turin Cathedral, and is believed to be the veritable shroud in which the body of Christ, after the descent from the cross, was wrapped by Joseph of Arimathea. When solemnly exposed on May 25th last, the shroud was photographed by Signor Secondo Pia, a lawyer of Turin, who was surprised to find the negative show a distinct face and figure, which have been described by the Paris Univers as follows: "Nothing is more attractive than the countenance, truly divine, striking in its beauty and sweetness, its majesty and love, even in death."

The large reproduction in *The Photo*gram shows the shroud as it appears, with the distinct impress of the front and of the back of the body. The smaller (fullpage) reproduction shows the face and front of the body as it would appear on Signor Pia's negative.

"Hand-Camera Work in Winter" is shown, by Paul Martin, to be both possible and enjoyable. His article is illustrated with eight examples.

The Christmas number is the same price as the ordinary monthly issues of *The Photogram*, viz.: Threepence, post free fivepence, from Dawbarn & Ward, Limited, 6 Farringdon Avenue, London, E.C.

### THE PHOTO-BEACON.

Amongst the features in this magazine are the "Child Picture Competition" and its results; "Photography in Queer Places," with photogravures of scenes amongst the Moki Indians; "Practical Hints," by Lambert ; "Photography for Teachers and Students," etc. The *Beacon* is the official organ of the Vive International Stereoscopic Society. The Photo-Beacon Co., Chicago. \$1 per annum.

### Books and Magazines.

In the Christmas number of The American Monthly Review of Reviews some of the most noteworthy of the famous paintings of the life of Christ by J. James Tissot are reproduced. Clifton Harby Levy writes on Tissot's life and method in painting, and Ernest Knaufft contributes a criticism of the portraits from an artist's point of view. The collection is now on exhibition in New York and will be shown in several of the leading American cities before Mr. Tissot returns to France. Īt is beyond question the most important series of representations of Christ made in modern times.

### Every Thursday the Year Round.

In more than half a million homes The Youth's Companion comes every week, the welcome guest of young and old -read with equal interest by every member of the household. The best of fiction, poetry, sketches of travel, instructive articles, comments on current events and selected miscellany and anecdotes fill its columns from week to week and from year to year. The publishers promise that the volume for 1800 will surpass all former ones in variety, interest and value. Among the two hundred distinguished contributors already engaged are Hon. John D. Long, Secretary of the Navy, Edward Everett Hale, Henry M. Stanley, Sarah Orne Jewett, W. D. Howells, Poultney Bigelow, Herbert E. Hamblen, Hon. Carl Schurz, Rt. Hon. James Bryce, John Burroughs, Robert Barr, Thomas Nelson Page, Bret Harte, William Black, Alfred Austin, Andrew Lang and Dr. William A. Hammond. All subscribers to the 1899 volume will receive The Companion's new Calendar, exquisitely colored, with a border of stamp-The paper will be given free ed gold. also from the time subscription is received until January 1st, 1899, then a full year to January 1st, 1900. A handsome illustrated announcement and sample copies will be sent free to anyone addressing

The Youth's Companion,

211 Columbus Ave., Boston, Mass.

### Sheldon's Newspaper.

The Rev. Charles M. Sheldon's books, now so universally read, make it plain that that writer's hopes of the regeneration of the world lie in getting individuals more and more to do their daily tasks on Christian principles no matter what the sacrifice involved. In the best known of his books, "In His Steps," he clearly looks to the newspaper, cartied on upon Christian principles, as largely the hope of the "coming kingdom." In looking about him for a newspaper upon his model, he seems to have hit *The Montreal Witness*, to which he has addressed a letter, part of which we quote :

"I have read the *Witness* with much interest. I cannot say that I know of any daily paper in the United States that is conducted on such high Christian principles. I wish I did, for if ever we needed such a paper in our country we need it now.

" Let me express to you my apprecia-

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| The quotations given represent aver | ana ari  | cas for | Powdered, lb\$                      | 30 3 | \$ 35      | Kino, true, lb \$          | 4 25     | S4 58       |
| quantities usually purchased by R   |          |         | CARBON, Bisulphide, Ib              | 15   | īĞ         | Myrth, lb                  | 45       | 40          |
|                                     |          |         | CARMINE, No. 40, oz                 | 30   | 40         | Powdered, lb               | 55       | 65          |
| Larger parcels may be obtained at   |          |         | CASTOR, Fibre, lb 2                 |      | 20 00      |                            | 5 00     | 5 2         |
| but quantities smaller than those   | e name   | a win   | CHALK, French, powdered, lb         | 10   | 12         | •                          | õ 50     | S 25<br>6 7 |
| command an advance.                 |          |         | Precip., see Calcium, lb            | 10   | 12         | Scammony, pure Resin, Ib 1 |          | 13 60       |
|                                     | 5        | ¢- 00   | Prepared, Ib                        | 5    | ••         | Shellac, lb                | 35       | . 40        |
| ALCOHOL, gal                        |          | \$5.00  | CHARCOAL, Animal, powd., lb         | 24   |            | Bleached, lb.              | 40       | 45          |
| Methyl                              | 1 90     | 2 00    |                                     | •    | 5          | Spruce, true, lb           | 30       | 35          |
| ALLSPICE, Ib                        | 13       | 15      | Willow, powdered, ib                | 20   | 25         |                            | 30<br>85 | 90<br>22    |
| Powdered, 1b                        | 15       | 17      | CLOVE, Ib                           | 17   | 20         | Tragacanth, flake, 1st, lb |          |             |
| ALOIN, OZ.                          | 40       | 45      | Powdered, lb                        | 18   | 22         | Powdered, lb               | 1 10     | 1 25        |
| ANODYNE, Hoffman's bot., lbs        | 50       | 55      | COCHINEAL, S.G., Ib                 | 40   | 45         | Sorts, 1b                  | 55       | 70          |
| ARROWROOT, Bermuda, Ib              | -40      | 45      | COLLODION, Ib                       | 75   | So         | Thus, lb.                  | 8        | 10          |
| St. Vincent, lb                     | 15       | 18      | Cantharidal, lb                     | 2 50 | 2 75       | HERB, Althea, lb           | 27       | 35          |
| BALSAM, Fir, lb                     | 45       | 50      | CONFECTION, Senna, Ib               | 40   | 45         | Bitterwort, lb             | 36       | 40          |
| Copaiba, lb                         | 70       | ავ      |                                     | 1 30 | 2 50       | Buidock, lb                | 16       | iS          |
| Peru, Ib                            | 3 25     | 3 50    | CRENASOL (JEVES) 4.02. bottles, per |      | 4 50       | Boneset, oz., lb           | 15       | 17          |
| Tolu, can or less, lb               | 70       | 75      | " " 12-oz. bottles, per             | doz. | 10 50      | Catnip, oz., 16            | 17       | 20          |
| BARK, Barberry, lb                  | 22       | 25      | CUTTLEFISH BONE, Ib                 | 25   | 30         | Chiretta, lb               | 25       | 30          |
| Bayberry, lb                        | 15       | ıŠ      | DEXTRING, Ib                        | 10   | 12         | Coltsfoot, lb              | 20       | 38          |
| Buckthorn, lb                       | 15       | 17      | DOVER'S POWDER, Ib                  | 1 50 | 1 60       | Feverfew, oz., lb          | 53       | 55          |
| Canella, lb.                        | 15       | 17      | ERGOT, Spanish, Ib                  | 75   | So         | Grindelia robusta, lb      | 45       | 50          |
| Cascara Sagrada                     | 25       | 30      | Powdered, lb                        | 90   | 1 00       | Horehound, oz., lb         | 15       | 20          |
| Casarilla, select, lb               | 25<br>18 | 20      | Ergotin, Keith's, oz                | 2 00 | 2 10       | Jaborandi, Ib              | 45       | 5C          |
| Cassia, in mats, lb.                | 25       | 28      | EXTRACT LOGWOOD, bulk, Ib           | 13   | 14         | Lemon Balm, Ib             | 45<br>35 | 40          |
| Cinchona, red, lb                   | 60       | Ğš      | Pounds, lb.                         | 14   | 17         | Liverwort, German, Ib      | 35       | 40          |
| Powdered, lb                        | 65       | 70      | FLOWERS, Amica, lb                  | 15   | 20         | Lobelia, oz., lb           | ĩs       | 20          |
| Yellow, lb                          | 35       | 40      | Calendula, 1b                       | 55   | 60         | Motherwort, oz., lb        | 20       | 22          |
| Pale, lb                            | 40       | 45      | Camomile, Roman, 1b                 | 25   | 30         | Mullein, German, Ib        | 17       | 20          |
| Elm, selected, lb                   | iŠ       | 20      | German, lb                          | 40   | 45         | Pennyroyal, oz., lb        | 15       | 20          |
| Ground, Ib                          | 17       | 20      | Elder, lb                           | 20   | 45<br>22   | Peppermint, oz., lb        | 21       | 22          |
| Powdered, lb.                       | 20       | 2Š      | Lavender, lb                        | 12   | 15         | Rue, oz., lb               | 30       | 35          |
| Hemlock, crushed, lb                | 18       | 20      | Rose, red, French, lb               | 1 00 | 2 00       | Sage, oz., 1b              | 18       | 20          |
| Oak, white, crushed lb              | 15       | 17      | Rosemary, Ib                        | 25   | 30         | Spearmint, lb              | 21       | 25          |
| Orange peel, bitter, lb             | 15       | 16      | Saffron, American, Ib               | 65   | 70         | Thyme, oz., lb             | 15       | 20          |
| Prickly ash, lb.                    |          | 40      | Spanish, Val'a, oz                  |      | •          | Tansy, oz., lb             | 15       | 15          |
| Sassafras, Ib                       | 35       | 16      | GELATINE, Cooper's, Ib              | 1 00 | 1 25<br>So | Wormwood, oz.              | 20       | 22          |
|                                     | 15       |         |                                     | 75   | + -        | Yerba Santa, Ib            | 38       | 44          |
| Soap (quillaya), 1b                 | 13       | 15      | French, white, lb                   | 35   | 40         | HONKY, Ib.                 | 13       | 15          |
| Wild cherry, lb                     | 13       | 15      | GLYCERINE, Ib                       | 17   | 20         | Hors, fresh, lb.           | -        | 25          |
| BEANS, Calabar, 1b                  | 45       | 50      | GUARANA                             | 1 00 | 1 10       | INDIGO, Madras, lb         | 20       | Ŝc          |
| Tonka, lb                           | 1 50     | 2 75    | Powdered, lb.                       | 1 25 | ı 35       |                            | 75       | 38          |
| Vanilla, lb                         | 8 00     | 15 00   | GUM ALORS, Cape, Ib                 | 18   | 20         | INSECT POWDER, Ib.         | . 35     |             |
| BERRIES, Cubeb, sifted, 1b          | 20       | 25      | Barbadoes, lb                       | 30   | 50         | ISINGLASS, Brazil, Ib      | 2 00     | 2 10        |
| powdered, lb                        | 25       | 30.     | Socotrine, Ib.                      | 65   | 70         | Russian, true, 1b          | 6 00     | 6 50        |
| Juniper, lb                         | 7        | 10      | Asafœtida, Ib                       | 40   | 45         | LEAF, Aconite, Ib          | 25       | 30          |
| Ground, 1b                          | 12       | 14      | Arabic, 1st, lb                     | 70   | 75         | Bay, 16                    | 15       | 20          |
| Prickly ash, lb                     | 40       | 45      | Powdered, Ib                        | So   | 95         | Belladonna, Ib             | 25       | 30          |
| Bubs, Balm of Gilead, lb            | 55       | 60      | Sifted sorts, lb                    | 45   | ŠÕ         | Buchu, long, lb            | 50       | 55          |
| Cassia, lb                          | 25       | 30      | Sorts, Ib                           | 30   | 35         | Short, Ib                  | 25       | 27          |
| BUTTER, Cacao, Ib                   | 60       | Ğş      | Benzoin, Ib                         | šo   | 1 00       | Coca, 1b                   | 35       | 40          |
| CAMPHOR, Ib                         | 55       | 65      | Catechu, Black, Ib                  | ٢    | 20         | Digitalis, lb.             | 15       | 20          |
| CANTHARIDES, Russian, Ib            | 1 40     | 1 50    | Gamboge, powdered, lb               | 1 20 | 1 25       | Eucalyptus, Ib             | 18       | 25          |
| Powdered, 1b.                       | 1 50     | 1 60    | Guaiac, Ib.                         | so   | 1 00       | Hyoscyanius                | 20       | 25          |
| CAPSICUM, Ib                        | 25       | 30      | Powdered, lb                        | - 90 | 95         | Matico, lb                 | 70       | 70          |
|                                     | ~        |         | ,                                   |      | ~ ~        |                            |          |             |

| Senna, Alexandria, lb\$<br>Tinnevelly, lb                                   |    | 25<br>15 | \$     | 30<br>25       |
|-----------------------------------------------------------------------------|----|----------|--------|----------------|
| Stramonium, Ib                                                              |    | 20       |        | 25             |
| Uva Ursi, lb<br>LEBCHES, Swedish, doz                                       | 1  | 15<br>00 | 1      | 18<br>10       |
| LICORICE, Solazzi                                                           |    | 45       |        | 50             |
| PignatelliGrasso                                                            |    | 35<br>30 |        | 40<br>35       |
| V & S-Sticks, 6 to 1 lb., per lb.<br>"Parity, 100 sticks in box             |    | 27       |        | 30             |
| " Parity, 200 sticks in box                                                 | 1  | 75<br>50 | 1      | 75<br>50       |
| <ul> <li>Acme Pellets, 5 lb. tilis</li> <li>Lozenges, 5 lb. tins</li> </ul> | 22 | 00       | 2<br>2 | 00<br>00       |
| " Tar, Licorice, and Tolu,                                                  | -  | ~        | -      | ~              |
| 5 lb. tins                                                                  | 2  | 00<br>30 | 2      | 00<br>35       |
| LYCOPODIUM, Ib                                                              |    | 70       |        | Sc             |
| MACE, Ib<br>MANNA, Ib                                                       | 1  | 20<br>60 | 1      | 25<br>75       |
| Moss. Iceland, lb                                                           | •  | 9        | -      | 10             |
| Irish, lb<br>MUSK, Tonquin, oz                                              | 40 | 12<br>00 | 50     | 13<br>00       |
| NUTGALLS, Ib.                                                               | •  | 21       |        | 25             |
| Powdered, lb                                                                | ı  | 25<br>00 | I      | 30<br>10       |
| Nux Vomica, Ib                                                              |    | 10       |        | 12             |
| Powdered, lb                                                                |    | 20<br>12 |        | 25<br>15       |
| OINTMENT, Merc., lb. 1/2 und 1/2.                                           |    | 70       |        | 75             |
| Citrine, 1b<br>PARALDEHYDE, oz                                              |    | 45<br>20 |        | 50<br>22       |
| PEPPER, black, lb                                                           |    | 16       |        | 15             |
| Powdered, lb Pircii, black, lb                                              |    | 1S<br>3  |        | 20<br>4        |
| PITCH, black, Ib<br>Bergundy, true, Ib                                      |    | 10       | -      | 12             |
| PLASTER, Calcined, bbl. cash<br>Adhesive, yd                                | 1  | 25<br>12 | 3      | 13             |
| Belladonna, lb                                                              |    | 65<br>So |        | 70<br>85       |
| Galbanum Comp., lb<br>Lead, lb                                              |    | 25       |        | 30             |
| POPPY HEADS, per 100                                                        | 1  | ٥Ö       | 1      |                |
| Rosin, Common, Ib                                                           |    | 2        |        | 3<br>4         |
| RESORCIN, white, oz<br>ROCHELLE SALT, Ib                                    |    | 25<br>25 |        | 0<br>2\$       |
| ROOT. Aconite, lb                                                           |    | -5<br>22 |        | 25             |
| Althea, cut, lb<br>Belladonna, lb                                           |    | 30       |        | 35<br>30       |
| Blood, Ib                                                                   |    | 25<br>18 |        | 25             |
| Bitter, lb<br>Blackherry, lb                                                |    | 27<br>15 |        | 30<br>18       |
| Burdock, crushed, lb.                                                       |    | 18       |        | 20             |
| Calamus, sliced, white, 1b<br>Canada Snake, 1b                              |    | 20<br>30 |        | 25<br>35       |
| Cohosh, black, Ib                                                           |    | 15       |        | 20             |
| Colchicum, lb.                                                              |    | 40<br>20 |        | 45<br>22       |
| Powdered, Ib                                                                |    | 25       |        | 30             |
| Coltsfoot, 1b<br>Comfrey, crushed, 1b                                       |    | 38<br>20 |        | 40<br>25       |
| Curcuma, powdered, lb                                                       |    | 13       |        | 14<br>22       |
| Dandelion, Ib<br>Elecampane, Ib                                             |    | 20<br>15 |        | 20             |
| Galangal, lb<br>Gelsemium, lb                                               |    | 15<br>22 |        | 18             |
| Gentian or Genitan, 10                                                      |    | 12       |        | 25<br>13       |
| Ground, lb<br>Powdered, lb                                                  |    | 13       |        | 14<br>15       |
| Ginger, African, lb                                                         |    | 13<br>15 |        | 20             |
| Po., 1b<br>Jamaica, blchd, lb                                               |    | 20<br>30 |        | 22             |
| Po., lb.,                                                                   |    | 35       |        | 35<br>38       |
| Ginseng, lb<br>Golden Seal, lb                                              | 4  | 50<br>75 | 4      | 75<br>So       |
| Gold Thread, lb                                                             |    | 90       |        | 95             |
| Hellebore, white, powd., lb<br>Indian Hemp                                  |    | 18<br>18 |        | 20<br>20       |
| Ipecae, Ib                                                                  | 3  | 50       | 3      | 60             |
| Powdered, lb                                                                | 3  | 75<br>40 | 4      | 00<br>45       |
| Powdered, lb<br>Kava Kava, lb                                               |    | 60       |        | 65             |
| Licorice, Ib.                                                               |    | 40<br>12 |        | 90<br>15       |
| Powdered, lb                                                                |    | 13       |        | 15<br>18       |
| Mandrake, lb                                                                |    | 13<br>16 |        | 40             |
| Orris, Florentine, lb                                                       |    | 30       |        | 35             |
| Powdeted, lb<br>Pareira Brava, true, lb                                     |    | 40<br>40 |        | 45<br>45       |
| Pink, Ilb.,                                                                 |    | 40       |        | 45             |
| Parsley, Ib<br>Pleursey, Ib                                                 |    | 30<br>20 |        | 35<br>25       |
| Poke, lb<br>Queen of the Meadow,                                            |    | 15<br>18 |        | 25<br>18<br>20 |
| Second of the steadowy                                                      |    | 10       |        | -0             |

|                                                                                                    |     | ~                                     |             | _                          |
|----------------------------------------------------------------------------------------------------|-----|---------------------------------------|-------------|----------------------------|
| Rhatany, lb<br>Rhubarb, lb<br>Sarsaparilla, Hond, lb<br>Cut, lb                                    | 5   | 20<br>75<br>40<br>50                  | \$<br>2     | 30<br>50<br>45<br>55       |
| Senega, Ib<br>Squill, Ib<br>Stillingia, Ib<br>Powdered, Ib                                         |     | 55<br>13<br>22<br>25                  |             | 55<br>15<br>25<br>27       |
| Unicorn, Ib<br>Valerian, English, Ib. true<br>Virginia, Snake, Ib<br>Yellow Dock, Ib               | •   | 38<br>20<br>40<br>15                  |             | 40<br>25<br>45<br>18       |
| RUM, Bay, gal.<br>Essence, Ib.<br>SACCHARIN, oz.<br>SERID, Anise, Italian, sifted, Ib<br>Star, Ib. | 231 | 50<br>00<br>25<br>13<br>35            | 2<br>3<br>1 | 75<br>25<br>50<br>15<br>40 |
| Burdock, Ib<br>Canary, bag or less, Ib<br>Caraway, Ib<br>Cardamom, Ib                              | 1   | 30<br>4<br>10<br>15                   | I           | 35<br>5<br>13<br>25        |
| Celery<br>Colchicum<br>Coriander, lb<br>Camin, lb.<br>Fennel, lb.                                  |     | 25<br>50<br>10<br>15<br>15            |             | 30<br>60<br>12<br>20<br>17 |
| Fenugreek, powdered, lb.<br>Flax, ck. ', ib<br>Ground, '<br>Hemp, lb.                              |     | 7<br>31<br>4<br>3/4                   |             | 9<br>4<br>5<br>4           |
| Mustard, white, lb<br>Powdered, lb<br>Pumpkin<br>Quince, lb<br>Rape, lb                            |     | 11<br>15<br>25<br>65<br>5             |             | 12<br>20<br>30<br>70<br>6  |
| Strophanthus, oz<br>Worm, Ib<br>SEIDLITZ MINTURE, Ib<br>Son, Castile, Mottled, pure, Ib.           |     | 50<br>22<br>25<br>10                  |             | 55<br>25<br>30<br>12       |
| White, Conti's, lb<br>Powdered, lb<br>Green (Sapo Viridis), lb<br>SPERMACETI, lb.                  |     | 15<br>25<br>25<br>60                  |             | 16<br>40<br>40<br>65       |
| TURPENTINE, Chian, oz<br>Venice, Ib<br>WAX, White, Ib<br>Yellow<br>Wood, Guaiac, rasped            |     | 75<br>10<br>50<br>40<br>5             |             | So<br>12<br>75<br>45<br>6  |
| Quassia chips, lb<br>Red Saunders, ground, lb<br>Santal, ground, lb<br>CHEMICALS.                  |     | 10<br>5<br>5                          |             | 12<br>6<br>6               |
|                                                                                                    |     |                                       |             |                            |
| ACID, Acetic, Ib                                                                                   |     | 12                                    |             | 13                         |
| Glacial, lb<br>Benzoic, English, oz<br>German, oz                                                  |     | 45<br>20<br>10                        |             | 50<br>25<br>12             |
| Boracic, lb<br>Carbolic Crystals, lb<br>Calvert's No. 1, lb                                        | 2   | 12<br>30<br>10                        | 2           | 13<br>35<br>15             |
| No. 2, lb<br>Citric, lb<br>Gallic, oz<br>Hydrobromic, diluted, lb                                  | I   | 35<br>50<br>10                        | 1           | 40<br>55<br>12             |
| Hydrocyanic, diluted, oz. bottles                                                                  | I   | 30<br>50                              | I           | 35<br>60                   |
| Lactic, concentrated, oz<br>Muriatic, 1b<br>Chem. pure, lb                                         |     | \$<br>3<br>15                         |             | 10<br>5<br>20              |
| Nitric, lb<br>Chem. pute, lb<br>Oleic, putified, lb                                                |     | 10 <u>1</u><br>25<br>75               |             | 13<br>30<br>50             |
| Oxalic, lb<br>Phosphoric, glacial, lb<br>Dilute, lb<br>Pyrogallic, oz                              | 1   | 12<br>00<br>13<br>30                  | 1           | 13<br>10<br>17             |
| Salicylic, white, lb<br>Sulphuric, carboy, lb<br>Bottles, lb<br>Chem. pure, lb                     |     | 30<br>75<br>2 <del>1</del><br>4<br>18 |             | 35<br>50<br>21<br>20       |
| Tannic, Ib<br>Tartaric, powdered, Ib<br>AZETANILID, Ib<br>ACONITINE, grain                         |     | 80<br>38<br>65<br>4                   |             | \$5<br>40<br>70<br>5       |
| ALUM, Cryst. lb.<br>Powdered, lb.<br>AMNONIA, Liquor, lb., SSo                                     |     | 17<br>3<br>10                         |             | 3<br>4<br>12               |
| AMMONIUM, Bromide, lb<br>Carbonate, lb<br>Iodide, oz<br>Nitrate crystals, lb                       |     | So<br>14<br>35<br>40                  |             | \$5<br>15<br>40<br>45      |
| Muriate, lb<br>Valerianate, oz<br>AMVL, Nitrite, oz                                                |     | i2<br>55<br>16                        |             | 16<br>60<br>18             |

| ANTINERVIN, OZ                                                                                                                                                               |    | 85                                     | 8      | 00                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------------------------------|--------|--------------------------------------|
| ANTIKAMNIA                                                                                                                                                                   | 1  | 35                                     | 1      | 40                                   |
| ANTIPYRIN, 02                                                                                                                                                                |    | 55                                     |        | 65                                   |
| ARIS101, 02                                                                                                                                                                  | 1  |                                        | 2      | 00                                   |
| ARSENIC, Donovan's sol., lb                                                                                                                                                  |    | 25                                     |        | 30                                   |
| Fowler's sol., lb.                                                                                                                                                           |    | 10                                     |        | 13                                   |
| Iodide, oz                                                                                                                                                                   |    | 50<br>6                                |        | 55                                   |
| White, Ib                                                                                                                                                                    |    | U                                      |        | 7                                    |
| ATROPINE, Sulp. in & ozs. Soc.,                                                                                                                                              | ٨  | 00                                     | 6      | 25                                   |
| BISMUTH, Ammonia-citrate, oz                                                                                                                                                 | U  |                                        | v      | 45                                   |
| Iodide, oz                                                                                                                                                                   |    | 40<br>55                               |        | 60                                   |
|                                                                                                                                                                              |    | 25                                     |        | 30                                   |
| Salicylate, oz<br>Subcarbonate, lb                                                                                                                                           | 2  | $\tilde{\mathbf{\omega}}$              | 2      | 25                                   |
| Subnitrate, Ib                                                                                                                                                               | 1  | So                                     |        | 00                                   |
| BORAX, Ib.,                                                                                                                                                                  | -  | 6                                      |        |                                      |
| Powdered, lb                                                                                                                                                                 |    |                                        |        | 7<br>S                               |
| BROMINE, OZ                                                                                                                                                                  |    | 7<br>S                                 |        | 13                                   |
| CADMIUM, Bromide, oz                                                                                                                                                         |    | 20                                     |        | 25                                   |
| Iodide, oz                                                                                                                                                                   |    | 45                                     |        | só                                   |
| CAFFEINE, OZ                                                                                                                                                                 |    | 55                                     |        | ΰO                                   |
| Citrate, oz                                                                                                                                                                  |    | 35                                     |        | 40                                   |
| CALCIUM, Hypophosphite, Ib                                                                                                                                                   | 1  | 50                                     | 1      | 60                                   |
| lodide, oz<br>Phosphate, precip., lb                                                                                                                                         |    | 95                                     | I.     | 00                                   |
| Phosphate, precip., lb                                                                                                                                                       |    | 35                                     |        | 3§                                   |
| Sulphide, oz                                                                                                                                                                 |    | 5                                      |        | 6                                    |
| CRRIUM, Oxalate, oz                                                                                                                                                          |    | 10                                     |        | 12                                   |
| CHINOIDINE, oz.                                                                                                                                                              |    | 15                                     |        | 10                                   |
| CHLORAL, Hydrate, Ib                                                                                                                                                         | 1  |                                        | 1      | 3S                                   |
| Croton, oz.                                                                                                                                                                  |    | 75                                     | -      | So                                   |
| CHLOROFORM, Ib                                                                                                                                                               |    | 60                                     | 1      | · · ·                                |
| CINCHONINE, sulphate, oz                                                                                                                                                     |    | 25                                     |        | 30                                   |
| CINCHONIDINE, Sulph., oz                                                                                                                                                     |    | 28                                     |        | 30                                   |
| COCAINE, Mur., oz                                                                                                                                                            | 4  |                                        | -4     | 50<br>30                             |
| CODRIA, $\frac{1}{2}$ oz<br>COLLODION, 1b                                                                                                                                    |    | 75                                     |        | 70                                   |
| COPPER, Sulph., (Blue Vitriol) lb.                                                                                                                                           |    | 65<br>6                                |        | 7                                    |
| Iodide, oz                                                                                                                                                                   |    | 65                                     |        | 70                                   |
| COPPERAS, Ib                                                                                                                                                                 |    | 3                                      |        | 3                                    |
| DIURETIN, oz.                                                                                                                                                                | 1  | 60                                     | 1      | 65                                   |
| ETHER, Acelic, Ib                                                                                                                                                            | •  | 75                                     | •      | Šõ                                   |
| Sulphuric, Ib                                                                                                                                                                |    | 40                                     |        | 50                                   |
| EXALGINE, oz.                                                                                                                                                                | 1  | 00                                     | 1      | 10                                   |
| HYOSCVAMINE, Sulp., crystals, gr.                                                                                                                                            |    | 25                                     | -      | 30                                   |
| IODINE, ID.                                                                                                                                                                  | 4  |                                        | 5      | 00                                   |
| IODOFORM, Ib                                                                                                                                                                 | Ś  | -                                      | Š      | 50                                   |
| Ionol, oz                                                                                                                                                                    | ĩ  |                                        | ĩ      | 50                                   |
| IRON, by Hydrogen                                                                                                                                                            |    | 80                                     |        | 85                                   |
| Carbonate, Precip., 1b                                                                                                                                                       |    | 15                                     |        | ıč                                   |
| Sacch., lb                                                                                                                                                                   |    | 30                                     |        | 35                                   |
| Chloride, lb                                                                                                                                                                 |    | 45                                     |        | 55                                   |
| Sol., Ib                                                                                                                                                                     |    | 13                                     |        | 16                                   |
| Citrate, U.S.P., 15                                                                                                                                                          |    | 90                                     | 1      | 00                                   |
| And Ammon., Ib                                                                                                                                                               |    | 70                                     |        | 75                                   |
| And Quinine, Ib                                                                                                                                                              | ı  | 50                                     | 3      | 00                                   |
| Quin. and Stry., oz                                                                                                                                                          |    | iS                                     |        | 30                                   |
| And Strychnine, oz<br>Dialyzed, Solution, Ib                                                                                                                                 |    | 13                                     |        | 15                                   |
| Dialyzed, Solution, 19.7                                                                                                                                                     |    | 50                                     |        | 50                                   |
| Ferrocyanide, lb.                                                                                                                                                            |    | 55                                     |        | 60                                   |
| Hypophosphites, oz                                                                                                                                                           |    | 25                                     |        | 35                                   |
| Iodide, oz                                                                                                                                                                   |    | 40                                     |        | 45                                   |
| Syrup, 15                                                                                                                                                                    |    | 40<br>2                                |        | 45<br>6                              |
| Lactate, oz<br>Pernitrate, solution, lb                                                                                                                                      |    | 5<br>15                                |        | 16                                   |
| Phosphate scales, Ib                                                                                                                                                         | 1  |                                        | 1      | 30                                   |
| Sulphate, pure, 1b                                                                                                                                                           | •  | 7                                      | •      | 39                                   |
| Exsiccated, lb                                                                                                                                                               |    | 8                                      |        | 10                                   |
| And Potass. Tartrate, Ib                                                                                                                                                     |    | 8o                                     |        | S5                                   |
| And Ammon Tartrate, Ib                                                                                                                                                       |    | So                                     |        | S5                                   |
| JEVES' FLUID, 25c. bettles, per do                                                                                                                                           | •• | •••                                    | 2      | 2Š                                   |
| " 50c. hettles, per doz                                                                                                                                                      | •  | •                                      | 4      | <u>j0</u>                            |
| LEAD, Acctate, white, ib                                                                                                                                                     |    | 13                                     |        | 15                                   |
| Carbonate, Ib                                                                                                                                                                |    | 7                                      |        | 15<br>8                              |
| Iodide, oz                                                                                                                                                                   |    | 35                                     |        | 40                                   |
| Red, Ib                                                                                                                                                                      |    | 35<br>7                                |        | 9                                    |
| LIME, Chlorinated, bulk, lb                                                                                                                                                  |    | 4                                      |        | 5                                    |
| In packages, lb                                                                                                                                                              |    | 6                                      |        | 5<br>7                               |
| LITHIUM, Bromide, oz                                                                                                                                                         |    | 32                                     |        | 35                                   |
| Carbonate, oz                                                                                                                                                                |    | 30                                     |        | 35                                   |
| Citrate, oz                                                                                                                                                                  |    | 25                                     |        | 30                                   |
| Iodide, oz                                                                                                                                                                   |    | 50                                     |        | 55                                   |
| Salicylate, oz                                                                                                                                                               |    | 35                                     |        | 40                                   |
| MAGNESIUM, Calc., Ib                                                                                                                                                         |    | 55<br>18                               |        | 60                                   |
| Carbonate, lb                                                                                                                                                                |    |                                        |        | 20                                   |
| On 00 10                                                                                                                                                                     |    | 15                                     |        |                                      |
| Citrate, gran., lb                                                                                                                                                           |    | 35                                     |        | 40                                   |
| Citrate, gran., lb<br>Sulph. (Epsom salt), lb                                                                                                                                |    |                                        |        | 40<br>3                              |
| Citrate, gran., lb                                                                                                                                                           |    | 35<br>13                               |        |                                      |
| Cirrate, gran., lb<br>Sulph. (Epsom salt), lb<br>MANGANESE, Black Oxide, lb<br>MENTHOL 02                                                                                    |    | 35                                     |        | 3                                    |
| Cirrate, gran., lb<br>Sulph. (Epsom salt), lb<br>MANGANESE, Black Oxide, lb<br>MENTHOL 02                                                                                    |    | 35<br>13<br>5                          |        | 3<br>0                               |
| Citrate, gran., lb<br>Sulph. (Epsom salt), lb<br>MANGANESE, Black Oxide, lb<br>MENTHOL, oz.<br>MERCUEX, lb<br>Ammon (White Precip.)                                          | I  | 35<br>13<br>5<br>25<br>75              | 1      | 3<br>0<br>87                         |
| Citrate, gran., lb<br>Sulph. (Epsom salt), lb<br>MANGANESE, Black Oxide, lb<br>MENTHOL, oz<br>MERCUKY, lb<br>Ammon (White Precip.)<br>Chloride, Corrosive, lb                |    | 35<br>13<br>25<br>25<br>75<br>25<br>90 | 1<br>I | 3<br>0<br>57<br>30<br>03<br>00       |
| Citrate, gran., lb<br>Sulph. (Epsom salt), lb<br>MANGANESE, Black Oxide, lb<br>MENTHOL, 02<br>MERCURY, lb<br>Ammon (White Precip.)<br>Chloride, Corrosive, lb<br>Calomel, lb | 1  | 35<br>13<br>25<br>75<br>25<br>90<br>05 |        | 3<br>0<br>87<br>30<br>03<br>00<br>15 |
| Citrate, gran., lb<br>Sulph. (Epsom salt), lb<br>MANGANESE, Black Oxide, lb<br>MENTHOL, oz<br>MERCUKY, lb<br>Ammon (White Precip.)<br>Chloride, Corrosive, lb                |    | 35<br>13<br>25<br>25<br>75<br>25<br>90 | I      | 3<br>0<br>57<br>30<br>03<br>00       |

tion of the Christian heroism and con sideration which make a paper like the Witness a possibility. I have always believed it possible for a Christian daily to succeed. You have proved that it can. So much of the ideal newspaper in 'In His Steps' is therefore real.

"I pray that you may continue to be blessed in your work. I do not know a more glorious opportunity for building up the kingdom on earth than by means of Christian journalism. I take the greatest pleasure in sending the copies of the Witness to newspaper friends of mine for their inspection.

> " Very cordially yours, "CHARLES M. SHELDON, " Topeka, Kansas."

### A Unique Compliment.

Mr. Chas. Austin Bates, the American expert advertising writer and critic, whose articles on advertising appear regularly in these columns, in a letter to the Morris, Field, Rogers Piano Company, Listowel, criticizing a catalogue which they recently issued, pays an unusual indirect compliment to the Brown-Searle Printing Co., Toronto, who designed and printed it. Addressing the piano firm, he says: "Printing is one of the things which evidently is done well in Canada. Your piano book is a pleasing piece of work. the paper, printing, illustrations, cover and cover design are all that can be wished. It may not surprise you that I say this, because, possibly, you have not noticed how very bad most of the catalogues are which are sent out by every kind of business. It is not one time in a hundred, in the course of these letters of criticism, that I have a chance to commend the mechanical part of the get up of a catalogue. In your case I can do so without reservation. Either you know something about printing yourself or you have chosen your printer wisely, and have permitted him to use his good judgment in getting out your book. As a rule this is a very unsafe thing to do. There are very few printers who use their good judgment, because good judgment is something they do not possess.

"In your book the effectiveness of the arrangement is brought about by the simplicity and uniformity of the type-setting. I especially like the way in which your little herald, shown upon the cover page, is carried through the book in different positions," etc., etc.

# TO LIFT THE MORTGAGE

#### GREAT CHARITY'S APPEAL Α

The Grand Work of Ontario's Sweetest Charity. The Hospital for Sick Children - Hampered by a Mortgage of \$50,000.

and suffering of helpless little children. The building is one of the best equipped hospitals in the world. It is capable of accommonating 175 sick children. To-day there are over 103 litthe pathents in the Hospital, all being nursed and treated, by skilful physicians and trained nurses.

The work has been carried on during the past year without stint. Over 5000 children were helped back to health. Of these 633 patients were cared for in the cots. One-third of the patients came from places outside of Toronto.

The Hospital is a provincial institution. Its services are free to the children of parents who cannot afford to pay the small fees charged. Some of the most difficult surgical operations known have been skilfully and successfully performed at the Hospital. Many a parent has had cause to bless the great charity, not only for saving their child's life, but for making happy what had otherwise been a sorrowful life. Children who had been cripples for life but for the ministrations of the Hospital will grow up strong and straight, and in the years to come they, too, will bless the work of the Hospital and return thanks in some tangible manner.

In twenty-two years the Hospital for Sick Children has been the means of helping 30,00) sick children.

This is a grand institution - one worthy of the sympathy and help of

Though for 22 years the Hospital has been doing this work, the workers in the inst tuiton have always been har-assyd by debt-and hampered for need of funds.

This year the mortgage of \$50,000 falls due, and half the amount of the mortgage must be paid off. The in-crease of patients during the past year precluded any possibility of saving a single dollar towards this object. The trustees of the Hospital, in this critical emergency, make a to the people of Ontario. strong appeal

To love abundantly is to live abun-dantly. The Biblical story of the Good Samaritan is a delineation of the greatest thing in the world-love. The Hospital for Sick Children was built by these who were large in enter-prise for the alleviation of the pain and suffering of helpes little abil dobt due the bank for money advanced to meet expenses incurred for medi-cine and food.

cine and food. Last year the scholars of Ontario's Public schools contributed \$1,153 to-wards the permanent endowment of a cot. They will complete their gener-ous gift this year. Toronto school chil-dron gathered \$1,397, and they say they will do more this year. The Sabbath school children gave nearly an equat amount amount

They are doing their hest to relieve the pain of their comrades in distress And it is upon these staunch little friends of the work that the Hospital relies for maintenance.

There are 400 papers published in the province 10 the readers of this paper could contribute \$100 amongst them, that sum would maintain a cot for a year-and perhaps save the life of somebody's darlings.

You will find as you look back on life that the moments of joy, the mo-ments that you recollect often, the moments when you have really lived, are those moments when you have done

things in a spirit of love and charity. The Hospital for Sick Children, "the sweetest of all charities," ap-peals to you on behalf of the little ones who languish on beds of sickness. They ask only for the dollars you can easily spare.

As memory scans the past, beyond all the transitory pleasures of life, there stand forward the hours when you have done some act of kindness to those and upono some act of kindness to those round about you, perhaps little acts too trifling to speak of, yot actions which have broadened the joy in your life.

From 136 places outside of Toronto the little putients came to the Hospital this year. Perhaps it may be your neighbour's child who will need the mother arm of the institution this year.

The future of the Hospital is in the hands of its friends. \$25,000 is needed at onco. To give abundantly is to get abund-

antly.

untly. Readers of this paper may forward contributions to J. Ross Robertson, chairman of the Hospital Trust, To-ronto. Their gifts will be promptly acknowledged by the Treasurer, and in the columns of the Torento Evening Telegram. Telegram.

### CANADIAN DRUGGIST.

| ledide, oz                    | \$  | 35 \$ | 40         |
|-------------------------------|-----|-------|------------|
| Bin., oz                      |     | 25    | - 30       |
| Oxide, Red, 16                | τ.  | 15 1  | 20         |
| Pill (Blue Mass), lb          |     | 70    | 75         |
| MILK SUGAR, powdered, lb      |     | 30    | 35         |
| MORPHINE, Acetale, oz         | 1   | 00 2  | : oō       |
| Muriate, oz                   | I   | )o 2  | 00         |
| Sulphate, oz                  | 2 0 | 0 2   | 10         |
| PErsin, Saccharated, oz       | 3   | 35    | 40         |
| PHLENACETINE, OZ              | 1   | 30    | 32         |
| PIPOCARPINE, Muriate, grain   |     | 7     | S          |
| PHERIN, OZ                    | 10  | i oc  | 10         |
| PHOSPHORUS, Ib                | 9   | ю і   | 10         |
| POTASSA, Caustic, white, Ib   | 6   | io    | 65         |
| POTASSIUM, Acetate, Ib        | 3   | 35    | 40         |
| Bicarbonate Ib                | 1   | 5     | 17         |
| Bichromate, b                 | 1   | 2     | 13         |
| Bitrat (Cream Tart.), 1b      | 2   | :5    | 28         |
| Bromide, Ib                   | 7   | 0     | 75         |
| Carbonate, Ib                 |     | 2     | 13         |
| Chlorate, Eng., lb            | 1   | 8     | 20         |
| Powdered, lb                  | 2   | 0     | 22         |
| Citrate, Ib                   | •   | 0     | 25         |
| Cyanide, lb                   |     | 0     | 50         |
| flypophosphites, oz           |     | 0     | 12         |
| Iodide, lb                    |     |       | 75         |
| Nitrate, gran, lb             |     | 8     | 10         |
| Permanganate, Ib              |     | 0     | 45         |
| Prussiate, Red, lb            |     | 0     | 55         |
| Yellow, lb.                   |     | 2'    | 35         |
| And Sod. Tartrate, Ib         |     | 5     | 30         |
| Sulphuret, lb                 |     | 5.    | 30         |
| TRUPHILAMINE, 02              |     | 5     | 46         |
| QUININE, Sulph, bulk          |     | 0     | 35         |
| Ozs., oz                      |     | 5     | 40         |
| QUINIDINE, Sulphate, ozs., oz |     | 6     | 20         |
| SALICIN, Ib.                  |     | 0 5   |            |
| SANTONIN, OZ.                 |     | 0     | 22         |
| SILVER, Nitrate, cryst, oz    |     | o     | 85         |
| Fused, oz.                    |     | 5     | 90         |
| SODIUM, Acetate, Ib.          |     | 0     | 35         |
| Bicarbonate, kgs., lb         |     | 5 3   | 00         |
| Bromide, 1b<br>Carbonate, 1b  | .7  |       | 7 <u>5</u> |
| Hypophosphite, oz             |     | 3     | 6          |
| Hyposulphite, 1b              |     | 0     | 12<br>Ó    |
| relignmenter in               |     | 3     | U          |
|                               |     |       |            |

| Iodide, oz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 40 2 8 5 8 8 0 2 3 5 5 0 7 2 1 3 0 3 9 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 5 0 1 9 2 0 1 9 2 5 0 1 9 2 0 1 9 2 0 1 9 2 0 1 9 2 0 1 9 2 0 1 9 2 0 1 1 9 2 0 1 1 9 2 0 1 1 9 2 0 1 1 9 2 0 1 1 9 2 0 1 1 9 2 0 1 1 9 2 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | \$ 1                                      | 410 50 068 0 550 4 20 550 10 750 550 11 30 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------|
| Oh, Ahnond, bitter, oz.         Sweet, Ib         Amber, crude, Ib         Rec't, Ib         Anise, Ib         Jany, oz         Bergamot, Ib         Cade, Ib         Cajuput, Ib         Caraway, Ib         Caraway, Ib         Cedar         Citronella, Ib         Clove, Ib         Copaiba, Ib         I         Cubeb, Ib         2         Cuby, Ib         I         Caulyptus, Ib         I         Fennel, Ib | 754 460 8 52 5966 9 57 55 58 9 75 5 5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3<br>1<br>3<br>3<br>3<br>1<br>2<br>1<br>3 | So 545550 50 7650 0 30 50 750 C 2755       |

#### Geranium, óz.... \$1 75 \$1 85 3 50 5 50 Rose, 1b..... 3 20 Juniper berries (English), Ib... 4 50 Wood; lb..... Lavender, Chiris. Fleur, lb.... 70 70 55 50 60 3 00 3 Garden, Ib ..... 75 50 50 60 00 60 60 75 00 Mustard, Essential, oz..... Neroli, oz..... 4 25 4 Orange, Ib. 75 75 65 80 2 3 3 Sweet, 1b ..... 50 50 Origanum, lb. . .... 1 60 I 75 75 75 05 85 Peppermint, lb.... 60 I. Pimento, Ib ..... 2 Rhodium, oz.... 80 11 30 50 70 500059055755 70557555 25 5 50 7 S. safras, Ib.... 75 Savin, lb..... Spearmint, lb..... 3 75 65 Spruce, Ib. .... Tansy, 10..... 4 25 1 80 4 1 Thyme, white, lb ..... Wintergreen, lb...... Wormseed, lb.... 1 75 50 3 3 Wormwood, lb..... 4 25 FIXED OILS. CASTOR, Ib..... 12 15

| COD LIVER, N.F., gal. | 9ō   | ્રક્રો |
|-----------------------|------|--------|
| Norwegian, gal        | 1 60 | 1 70   |
| COTTONSEED, gal       | 1 10 | 1 20   |
| LARD, gal             | ·90  | 100    |
| LINSBED, boiled, gal  | 56   | 59     |
| Raw, gal              | 55   | 58     |
| NEATSFOOT, gal        | 1 20 | 1 30   |
| OLIVB, gal            | 1 30 | 1 35   |
| Salad, gal            | 2 50 | 2 60   |
| PALM, 16              | 12   | 13     |
| SPERM, gal            | 1 50 | 1 60   |
| TURPENTINE, gal       | Šo   | 65     |
|                       |      |        |

### Drug Reports.

### Canadian Market Report.

There is every indication of a good business being done during December. If the sleighing should continue until the holiday time it will mean many dollars to the country.

The advance in price of Sulphonal has been confirmed. This article is now quoted at double the former price. Cable advices announcing advance in Phenacetine was an error. There is little doubt in the minds of those best qualified to know that it will soon be higher. Cam. phor has been steadily advancing, and is quoted at 55 to 6oc.; higher prices still will indoubtedly prevail. Iodine preparations have advanced about 6c. per lb. on the London market, and bromide preparations 4c. per lb. Cocaine will undoubtedly be higher presently. Ouinine-Higher prices looked for after the first of the year, if not before. Ergo:, cascara bark, Vanilla beans, bismuth, mercurials, caffeine, borax, boracic acid, sulphate copper, and rad ipecac, are all tending

higher. Paris green is already being sold for spring delivery on the basis of 13c. in 100 lbs., irons. Powdered hellebore can be bought now for spring delivery on the basis of 12c. in barrel lots. Napthaline balls for spring delivery on the basis of  $3\frac{1}{2}$ c. in barrel lots.

### English Market Report.

### LONDON, NOV. 25, 1898.

The general tone of business is de cidedly good and prices are in many instances on the up-grade. Sulphonal has had a sensational jump of nearly 50 per cent. in value in consequence of manufacturers combining. Camphor is dearerand iodine and all iodides have advanced. Copper sulphate is also dearer. Ip-cacuanha is firm at recent advance. Arsenic easier. Cascara is steady at higher rates. Quinine is very firm and an advance predicted. Ergot is much dearer. Permanganate of potash easier.

Pediculin, a German remedy for lice and other parasites, is composed of sixtyfive per cent. powdered chalk and thirtyfive per cent. of commercial naphths.

# R. H. BUTT

Fire and Accident Insurance Agent.

26 WELLINGTON ST. EAST. PHONE 1854 TORONTO.

TURUNTU.

# Druggists

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