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

## VOLUME XI.

 January to December, 1899 .IV. J. DYAS,<br>63 Yonge Street, Foronto, Camada.



## The Canadian Druggist


975
23
27
71
4.1, 71 Advertisora, Armong our 51, 65, 96, 109, 166, 911, 211
Are Drugbists Businese Men?
Attrectivolurug Storo. ${ }^{\text {A }}$ äotorm
Action of Oxygon on
Artiflcial kuveder ${ }^{\text {Apprentice of the }}$ iresent.
Apprentice of the Present...............
Acotic Acld in Fluid Extracis.
Absortod Queries
Apolliugris not Drawa from Fiviuman..
inis.
Adrantage of an Optical Courso.
And Coin..................
A Veaturo of tho Times......i.
Artinclal Cauphor
223, 125, 100, 193, 2
1300 ke .
........ . . 51
businoss Policy
Mritioh Pharnacopola Synopsis
Business Letters.
British Opficians...
Beantify your Store
Business
Bateball....................
Best Way The...........................................
Hritich Columbia Niotos..
Bleachipg Sponges
British Columbin juarnace.............................iss
Businesa Polnters
Britian Columbia to Nowfounulaud
Hlue Printing Paper.............
Belladonda Plasters, Avalysi of
Bromluo Enlargiog

Lsulding upa Succesafal Opzical lsusiness...

| pondence. $\therefore, 156,$ |
| :---: |
| Cascara Sagrada, Spurious . ...... . ... |
| Councll, Meotiv |
| Cocaiue dydrocnlorato |
| Combuatible Soap Compouna |
| College of Phardacs Examina |
| Colors, To Mix |
| Cochine, Now Test |
| ouncil Edection |
| Cremicals made bylharmaciate.... . ... lia |
| Carlsbad Sprudol Salts......... . ... ......... It |
| College Anuouncement, The... ......... . . 10 |
| Canacian Ceweras |
| Commenta on Ontario Cot |
| Canadian didovdum |
| Contenary of tho Motric |
| Canadian l'hernaceutical A88 |
| Canadien Addendum to The 13.1' ....... . .2ri, $\mathrm{g}_{19}$ |
| Commerclal Training. |
| Central Business Coliege, Toro |
| Caloddula, New Propara |
| Cbomistry, Advance of ............. . . . . 33 |
| Cape Colony Mudical Act |
| Canadian Medical Association |
| Camphor-lts Growth and Uyes |
| Camphor in Florids. |
| Chila Portraliaro. |
| Canadian Retail Draggists' Ass'u.................. 150 |
| Collectiog Accounts.... ................ . ... 0 |
| Coystallia |
| Counterfultag |
| Drug Tradoin Gor |
| ag loports |
| $24,52,76,101,129,152,106,200,221,218,274$ |
| Doteriorated Drags .................. ${ }^{\text {as }}$ |
| Drugkists spd Drug Siores in Mexico. . .. ..... 5 |
| Disyousing Notos.................................... bis $^{\text {din }}$ |
| Donithlon Pharmacoutical Association. .... 77. |
|  |

INDEX TO VOLUME XI.

Does Lour 13 usinese l'ay?

```
©. 7
```

Divinionnl Aseocistiont,
Drug Clerk. The leot of
D) apensing yhyoiclaus

Dlaponeer, Tho

Druggista May
Drug Clerks, A ligister of
Drug Cierks, A register
Drughe liconseg $A$.
Developivg Svep Shois
Drugista and I'thoterraphic supulius
Donts in Photosrailuy
Dopllatory Soab......
Exchangeable Goods.
Fingliah Jtarket repor
Election of Connefl. O.C.
Economy for aliv Drug Store
Eye.Glabses and Succicles, Fitina of
ib. 1an fig. 1 it

Encouraging Photograjhy
Formulary

Fountain rud Accessorioe, Tho.
Find of Natural Carbonate of Soda.
Future of 13. C. lipe rmaceutical A s8ociation
Formulns for T
Formulas for T o Much. Usod Ireparatione
Force of An Emploser's livaunte
Flasli-lighi Powder...

Grocers Agninst Uruggists.
Get Ul..

Gutra-purcin and Inoiarribber - 2.20, s8, 11116
Glycerine Sumpositorion .. . ....
Ilopeful. .
Hoy Bitters Leare, A.
Hypo-Substitute for Opiatus
MSkiento liules.
How to Jtare Ground Giass Chemicall
How to z\}uy Cigars..
Horticultural liociyes
Habdiomo Store, A.
IIand Camera Work
Marmonious Llyhtivg
Harmovious Lightivg
How to llotail Cigars.

Inems of interest. . ....
Insect Powders
lodoform Substitutes
¿ujunctiou prai
Injunctiou afaingt Lyiuan Woodward co
increased Telcphovo Service
impunctian Gramed.....
Insention of Artithcial Cork..
is Ice.Cream Sods a Medicin.
lodide of Sitver laper.
Improviag Defectivo Jéative
. 15.

Jovior Examination lesults
$-\quad 0$

295
80


136

Rabio. Dr. W. $\lambda$
Kobifog liubber liright.
Rola Tablets
Koops .......
Kerosoform


Laboratory Notes
Linsesd OIf, Teais for
I.ocus:8, Dosiruction o

Montrcs College of Iharmacs... .... 8, 38. 112, 254


$13:$
liantiotia, 'barmaceutical dafnctation of III. Is

Miegionary tharmactate Wabitcdin Chitm
rr. Motchur
Asabiug luoth Finde tice
Mr. James Cumbinise, Doath of
Mndufacture of litit
Manifoba Collego of liharinacy
Meoting of Quebue l'barmacentical Ans'n
Ir. Alux. Roberts.
Mreturia Mudics as Found in Dova Scotin
saking Applicatious for a prasition
yy
lagie Plagograpulten
Novor Fuar Conlbetition
Nows ltemat
6.. M. 1:31. 105, 207, :31

Nora Scotia Notec
66, 181, 2ii
Corthwestera University Schooi of lharmacy yorer
Siew Food for Stock
Notablo Chango..
Now l'urcatire...
Sinth Amuual ixxenraion, Irako, Davio l:u plosees..
New hiunswick lharmaceutical Sociosy is
Xova Scotia l'harmacoutical dsto. Ial
iegatives
Now Drughiste afd lorug Clerke' Fixchsixio
Our Tenth Aumberanty
Ontical Alchemy...
Optical Departmene

Outario College of Mhermacy
Obituary
Orertmyg. The Mintako ol
-114. 189. 14\%: 25
Orerbuylog, The Mintake of ois

Old'Ting dnprenticenhly
Optical Graduntes
uptical Goods. Advaucein I'rice of
O.C. P. Counct
.
Olly Solutions of Mercurle Chiorlde
Onfonive for Inseatiment, An
Ophaige for luse
O.C.I. Ifanyuez
Ortol an a Developer
Optical Examinutions
Opilcal Adrortisinc
Ontario College of Pbatinacy
[10] 100

Mharmaceutical Mayors
lractical Surpostione.
luarmacy in Fuglama

jostal Cunugen ifujortan
l'unrmacousical l'rudicto.
liatent inturests
Practical Talk on Sponges, d
Photographaic Notes

lyarmscy Fxamication fosille
"barmacy Students" Divaer
Eractical SukRosiloms
prantitanud Disconnta
Postal Exchanhe
pojbon Tegulatiots
pharinncy tu Gouth Airien
l'atent Menticines in Jnjus
phinrmacy as Marmaciets
pharmacy Fxaminatious
Dharfancy Act of (iruat Hritang
Photographaic fiublument
Pbarmaciats and Üino Angiysis
l'sescription Work
'rescription Wark
['asont Modicine, Aacendeucy of
106. 1022
paral.....
Pharmecoutical Iixaminatione. J14. 2.7.
pefroleunt as a Subasitute for Cod Liver Oil
Ploasmut Lasatire
I'roprieters lecmedice
Ihyolulogical Standardination. .

|  |  |
| :---: | :---: |
| $162$ | Window Display. |
| rophecta tor Canuphor.. . ..... . ... .. 165 Way to Succoa |  |
|  | What itxnosure. |
|  |  |
|  |  |
|  |  |
|  |  |
| Percovtnfo Solutions of the Plarmacopria... . |  |
|  |  |
| Irepraration of Spirita of Nitrous Ether - . ${ }^{\text {aty }}$ |  |
|  |  |
|  |  |
|  |  |
| Rawarnislana notes. - ai. |  |
|  |  |
|  |  |
| 20tograjhis |  |
| lerceitaro solutious. |  |
| ractical |  |
|  |  |
|  |  |
|  |  |
| Pharmaceutical serociation of the North-West as. Anthtarosol..... |  |
|  |  |
| Patents kolatiug to l'harmacy ........... .est Antiond Croan |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | Craching Con |
| Cleansinf Fluid..... .. . . . . . . . . . . . . . . . . . . 17 |  |
|  |  |
| 5 |  |
| Rapdi Muthod for lodian Theture.. . . .. 60 |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Care, Freckle................ ............. ....... 145 |  |
| Solub |  |
|  |  |
| accessful Opucal Class. A........... |  |
|  |  |
|  |  |
|  |  |
|  |  |
| hortor Hours Bill... . . ............. ........ 130 <br> Calonduls, Preparations of......... |  |
|  |  |
| Sunday work |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Seasounblo Formula... ............... |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Trade Notes |  |
|  |  |
| Trading stamp Compary, The $\quad \cdots 0$ | Effervoscing Qulaino Nixture .. ..... . 121 |
|  |  |
| Troes hat frow bread .......... . . . 99 Fixir Pepsin. Saline................ ...... . .. 145 |  |
|  |  |
| Tuberchlosis, Cure for. ... .......... . .. 112 |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| ................... . ... 1:3 Flashlight, Formula for............ ....... ... is |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Glucanth a Pll Excipient. ..... . . .......... 97 |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
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## CON`たENTS.

Elitorial..
Our Tenth Anniversary.
Hopefirl.
The Iroposed Indian and Colonial dddendum.
Conkesboninescr.
Why Not llave Our Own Pharmacopatia )
Kevikil of rite ykar.
Montreal Cillege of I'harmacy.
Never Fear Competition.
Trade Notbs.
Manitoba Notes.
Pharmaceutical Mayors.
Death of Ilugh Miller.
Pharmaceutical Association of Manitoba. The Trading Stamp Company. Items of Interest.
A Practical Talk on Sponges.
The Drug Trade in Germany.
The Indman and Cobonial Anhenbug.

- Pharmacy in Engiand.

New lostal Regulations.

## Formulaty.

Photographic Nones.
Ortical. Depaktaizit.
A Talk on Light.
Visual Optics in Theory and Practice.
IJrug Kerorts.

If a man have not energy neither shall ine have prosperity.

Bad debts are the result of a bad system of doing business.

Our Tenth Annlversary.
We take special pleasure in closing this year to refer to the fact that with its close the Canadian Druggist has ended its first ten year period of successful existence. That it has been successful in a business sense is merely a matter of gratification to ourselves, but that it has proved a success as a distributor of practical and helpful information to our read. er's is to them, we trust, as it is to us, a matter of mutual gratification.

The policy of the "Drugsist" has at. seays been, Canadian pharmacy to the fromt. We have striven with what ability we possess to foster this iden, and, while we do not lay claim to any special credit for doing so, we do feel that some of the advancement which has been made has been achieved along lines we have fre. que:iii; advocated. Our constituency, which includes ail the provinces of the Dominon, is one which embraces a mul tiplicity of interests, and we would be lacking in the vanity writers are so wellknown to possess if we did not feel flattered by the many eulogistic letters we have received expressive of appreciation of our effots to serve these. This journal will in the future, as in the past, be open to the free use of our readers and we will be glad indeed, during the coming years, to have them help us in building it up so that its practical usefulness to the trade may make it more widely known and more highly valued. The experience of the past ten years has taught us that we have much to learn, but, as we know that to be the experience of more gifted men than ourselves, we are not dismayed. Our faults, our readers will find out. Our good intentions, we know ourselves, and our success we leave to the fate which has been sc kind to us in the past.

Wishing all our readers 2 bright, prosperous and happy New Year, we remain in mutual service. Tue Eiditor.

## Hoperul.

In conversation with a gentleman, who has visited the drug trade in various parts of Canada during the past year, we learned that in bis opinion prospects wete daily becoming brighter, and that in nearly every instance where he had made inquiries the volume of business done was in excess of the preceding year. In Vancouvet, North-west 'Territories, and Manitoba trade was unusually promising. The Maritime Provinces were in a healthy business condition. The provinces of Ontario and Quebec were suffering more than the others, but even they were making satisfactory business progress, and gradually emerging from the uncertain condition of trade induced by the advent of price cutting. Everywhere hope was again springing up, ind aiding to restore that feeling of confidence without which trade never has been, and never will be, satisfactory.

With better times the demand for price cutting was diminishing, as the consumer was beginning again to feel that he could afford to live and let live, and to yield up his mite to restore hope and success in the business community.

## Tho Proposed indian and Coionial Addendum.

We are in receipt, from the General Medical Council, of coptes of the report of the Pharmacopœia Committee on the proposed Indian and Colonial Addendum to the British Pharmacopœia of 1898 . This report has been approved and adopted.by the Council, and has now been issued to the medical and pharmaceutical authorities in India and the colonies, with suggestions for their consideration. The articles named in the report are not numerous, and but few of them suggest themselves io the pharmacists of Canada as being a necessary addition to the B.P. as far as this country is concerned. We cannot compliment the Council on their manner of dealing with "the colonies," as regards Canada, at least, and when we mention that the Council of the Ontario College of Pharmacy, who are the administrative body governing three-fifths of the pharmacists of Canada, and with a college through whose portals all graduates must pass before becoming licentiates, to say that this body has not been officially recognized, etther in the first instance by being asked for suggestions for
the proposed adilendum, or at the present lime not forwarding them a copy of the work, shows a lack of courtesy on the part of some one, whether it be of the Medical Council or the Colonial oftice of the Bratish Government, or else an indif. ference, which makes matlers still worse.

We have given, in the limited space at our command this month, the substance of the report, omitting merely those parts which relate to the "character" of the plant n.amed and some of the notes stating by whom they are recommended.
We have submitted the report to several leading pharmacists in the various provinces for examination, but the late date of its arrival prevented our receiving criticisms from those at a distance. We give, however, the opinion of a recognized leader in pharmacy, Mr. Henry R. Gray. Montreal, in answer to our request for his views. He says of it :
"I do not believe we possess any ind. gencous drugs of such real and proven value as would entitle them to a place in the proposed addendum to the British Pharmacoperia. Those drugs, common to both Canada and the United States, which are of any real value, are already represented in the B.l., while others, which have little or no value (castoreum for instance), have been wiscly omitted. I, for one, believe there should be no doubtful therapeutic substances in a national pharmacopocia. It is possible there are some things in the B.P., 1898, which might be eliminated, even now, with advantage as, for instance, musk.
Of course, it is possible that we may have some wonderful drug in Canada which deserves canonization in the B.B. ; all I can say is that I know not of it. As to modification of formule to suit the great variation between summer and winter in our slimate, I see no reason why a skilled pharmacist cannot make such alterations, so long as the therapeutic activity of the drugs is not affected.

I really do not see what we i.ı Canada can suggest to make the l., P more applicable to our requirements than it is at present, unless io suggest that the United States and British pharmacopozias should be revised and condensed into one, so as to become the pharmacopocial standard for all the English-speaking peoples of the world."

The number of United States prescriptions daily dispensed in Canada is an argument, so far as Canadians are concerned, for having a united pharmacopola for the English speaking people of the world published simultaneously in London and New York.

## Correspondence.

The editor does not hold himself reeponcible for the opinions of corresjwndents.
Correspondents muse in all cases senil name and address, not necessarity, for pulistcation.

Why Not Have own Pharmacopola in Place of a Referenco Work liko the B. P. ?

To the Editor of Canabian Druggist:
'Toronto, January 12 th, 1 S99.
Dear Sik,-Is not the present time an opportune one for the renewal of an agitation in favor of a Canadian Pharm. acopcia?

Have the pharmaceutical chemists of Canada given the B. P. of $1 \sum_{9} 8$ careful study, and become convinced that our official guide falls far short of meeting the requirements of a work of its character, that it is merely a book of reference, and not a book from which one can directly work?

The absence of molecular weights, saturation tables, statements of extent of solubility at definite temperatures, alcoholometric tables, statements as to percentage of purity the volumetric determinations convey, accasional explanatory notes, and other omissions too numerous to mention, are inclined to induce the pharmaceutical chemist to discard the book, and consult some commentary to supply that-which the official standard should furnish.

Is there not some ground for suspicion that there is a design on the part of the' Pharmaceutical section of the General Council to play directly into the hands of the proprietor of "Squire's Companion," by withholding matter from the B.P. that would make it a convenient workbook, knowiag that the other work referred to would supply the same, thus making it imperative on the part of the pharmacist to purchase the "Companion"? Why not, then, have our own Pharmacopocia, wherein many of the drugs and preparations of daily use in Canada, and not official in the B. P., may be properly treated, and the general and specific information now conspicuous owing to its absence in the work referred to supplied.

Yours truly.
Disappointed Pharmacist.

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to our correspondents for the kinto favors bestowed during the past year. arde will endeavor to merit their frequent repetition.

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## Review of the Year 1898.

In placang before our readers our an nual revew of the progress in pharmacy and the saience upon which pharmacy deperds we are naturally inclined to give the premier positton in importance to the publication of the much delaged

## BRIITA PHARMICOPREIA, ISOS.

The method of publication calls for a word of comment, as never has euch an important work been issued in such an objectionable manner. The day before Good Friday, when most of the i.ondon pharmaceutical press had suspended their labors for the week, a copy of the new B.I. was sent them, apparently for review. No further copies were obtarablle, and it was some tume after this that a copy was sent to us, but the distinct statement of the secretary of the General Medical Council indicated that it was colly on loan. At the end of May the book was gazetted, and according to the best authorities immediately came into force in England. Pharmacists were placed in the sublimeiy ridacutous position of having io conform to the regulations of a work which was actualls unob tainable. Private enterprise fortunately came to the rescue; the drug journals published copious extracts, and in one case so well was this done that a copy of the B.P. was quite unnecessary, and it was just a question for some days whether the Copyright Act would not be called inte motion to stop the publication of the epitome. Then followed various Notes and Guides on the New B.P., several of them beitg distributed free to medical men and pharmacists through the enterprise of wholesale drug firms. Chef among these may be noted Umney's Guide, which was issued only a few days after the press copies of the B. P. Were distributed, and therefore called forth some envious comments. Hewlelt's Notes were also of great value, and we absiracted some of the more important parts. Gadd's Synopsis, published at is cents, is a little bonk which is wonderfully compicte and spectally adapted for pharmaceutical students.

## CRITICISMS OF THE NEW R.p.

There has been ro falling off in the usual number of criticisn:s that always crop up when a new edition of the B.P. appears. The strongest and :rucat remark

Is that it is becomung more and more a phy stcian's pharmacopera rather than a phar marist's. That is to say, the convenience of the phyucian has been chielly con sulted, and most of the radical alterations are only meonvement to the pharmacist. The natural result is that, in spite of the strenuous efforts of the pharmacopecia commattee of pharmacists, upon whom the duty of devising formule and revising old processes naturally fell, the new B.l'. makes it still more difficult for the retail pharmacists to manufacture even galenicals. Thus, the loss of spirit in taking a pint of one of the 1 in 5 tinctures is so great that a retail pharmacist would inevitably find it cheaper to purchase than to make. The wholesalers, with their hydraulic $\mathfrak{i}$ resses, recovers of spirit from marcs in the still, and standardization of large batches, are placed in a better posituon than before. This has been mentioned by critics as a stricture on the pharmacopecia committee, but, as there were only about three wholesale druggists and nine retail on the committec, it is very certan that their action was compelled by the pressure of medical opinion.

Once agan the new B.I. comes out well in its botany and materia medica, altheugh Druce has found fault with several of the botanical sources of drugs. In many instances, however, the exact spscies is only a matter ol conjecture. and, as the commitice had the assistance of 1:. . M. Holmes, Curator of the Pharma. ccutical Society's Museum, and the greatest living authority on the subject, it is no: surpusing that this part was well done.

## Wholisalems' criticisms

were based chiefly on the alterations in the strength of tinctures, the absurd striving for unattainable purity in commercial chemicals, the complete dis regard of wholesale methods and convenience, and absence of preparations that were expected by everyhody in a new pharmacopecia.
E. Merck has shown that the color reaction for morphine with sulphuric acid is incorrect, that borax seldom answers the degree of purity laid down, and that some of the specific gravities and melt. ing poinis do not agree with the lh. Germ. and N.S.P. D. Howard objected to the monograph on quinine and the de
talls for teating bicarbonate of sodium. He also showed that, in altermg War rmgton's standard for lead in cotre and tartaric actds, the commotee had made a mistake. Moss rased many whectons to the solnd and ligut eatracts of the new pharmas opeita, and thetcher used very plam languase about the relleculun: derections paren fur prodacang the new concentrated lingurs of a alumba, chareta, etc. His cribicism is to the perne as be invented the: one motrated lapmors for the puick productoon of corresponding tue tures, decoctuons, munams and syrups. Bryant has shown that the method of making liguid extran of lelladoman does not exhaust the root. C'muey bas pro. tested agiunst the eaclunton of a lapuar gentanat co., aad to the new method of preparmg compound sprat of ciher so that unly ether makers ran produce at. Mallard has proved that the spectio gras it) of liugud parathon is moorrect and Stern Brothers, the largest makers of this artucle, have confirnied it. Schmmel \& Co. have cramend the pataculars gren respecting onl of junurer and the spectic gravilues of of of dill, etc. Naylor and Bryant hue made out a strong case for the s:andarduation of the green entraces of belladuma and henbanc. Bird pomed out the weli known defects in the formula (or syrup of shubarl, and cracte:d the omission of buric acid from bemblock ontment which now som goes mouldy. Gadd stated that biycerm of borac actd turns punk on keefreg, but thas is uncon firmed. stanford does not o.onsider that the dned ingrod gland in so effective as thyroglandin.

## INい R8.1 W1.t.K

Some excellent pouns hav = been made oy retan pharmactst and analytical chemisis. The genera! compiamt is that although not intentional the new 13.1'. makes $1 t$ mperative that the pharmactst should more than ever purchase all galenicals such as tunctures, concentraied liquors, ctc. Wilsun has nut oaly critic ized the assay me:hods for hepuded extracts of belladonna and pecacuanha -whinch was easy-but has suggested improvements and modifications that render the process much more simple and exact. Bud suggested an improvement in the method of makug ung. hyd. ma., by heating the lard and merali of mercury together to a high temperature until the reaction nearly ceases and then adding the olive oll. Jowett has given an improved method of estimating the purity
of hypophospites. Dowzard has pointed vit wome s' sit erturs in the calculations of the percentages of purity of chemicals. A. J. Cownley has demonstrated that the test for the purity of sulphate of quinine is defective and allows six per cent. of cinchonidine to be present. A. H. Allen expressed his regret at the continued defective nature of the test for strength of pepsin. Martundale would have prefered the tinctures of dectmal strength and liquid extract of cascara made by extraction with twenty per cent. alcohol instead of water only, but advanced no proofs in favor of this. There have been numer ous minor complaints, such as objection to the deletion of old favorites and alterations in established formule, and to most of these objections the only reply that has been forthcoming was to the effect that the changes were made at the instigation of the nedical committee and the pharmacists had no option but sbey.
This opened up the whole question of the methodsof pharmacopecia production, and a comparison with other countries is not favorable to the present Britsh system, whereby all the directing is done b) medical men, pharmacists merely carrying out their suggestions or making recommerdaten. a'int may or mas mot he accepted liy the authorites.

## CHEMISTKV.

Had it not been for the introduction of the new is.P. chief importance would have been assigned to the liquefaction of hydrogen and helium by Devar, and the discovery of krypton by Ramsay, as epoch marking events of ${ }^{2} 898$. Not satisfied with liquid air and detailing its properties, which are sufficiently remarkable, Dewar has succeeded in producing appreciable quantities of liquid hydrogen and determining its boiling point and density hitherto unaccompiished with exactitude. It is true that Oiszewski claimed to have performed this feat, but details were lacking and his figures proved mcorrect. When it is remembered that the boiling point of liquid hydrogen is $=5^{5} 5^{\circ} \mathrm{C}$., it seems as if the lowest possible degree of cold has been reached. Indecd, it is Demar's own opinion, as this is within $\mathrm{j}^{\circ}$ of absolute zero. Krypton is of no less interest, and its discoverer, who has added argon and terrestial helium to our elements, has recently lectured on the subject at the Berlin Chemical Socicty. This is confirmatory of Ramsay's address at Toronto in $\mathbf{8 9 7}$ that there was possibly an element
between argon and helium. The spec. trum has been carefully differentated from that of argon, and the density is about 22.5, oxygen being $\mathbf{1 6}$. Besides this element Crookes has added another spectroscopic discovery in monium, wrested from the rare earth group of ytrium, samarium, etc., and found its density to be about 118 , that is between ytrium and lanthanum. Nacini, of Padua, adds another element, discovered by spectroscopic investigation in the gases evolved from Vesuvius, and has identified it with coronium, long known to exist in the corona of the sun. The crystalline form of iodoform has been definitely setled by Pope as hexahedra when crystallized from acetone. Rimini has introduced a new test for formaldehyce, depending upon the reaction with phenylhydrazine hydrochloride and hydrochloric acid with formaldehyde yrelding a red coloration. Acetylene has gained greatly in popularity as an illum. ating agent and is becoming so important as to require literature devoted to it. There have been several accidents with it, and the best generator has not yet been devised that will provide safety, efficiency and economy. In a bicycle lamp acetylene is a distunct success. Hubons has patented the method of preparing pure lamp-black by decomposing acetylene under pressure in a steel cylnoder by an electric spark. Colloidal mercury is Lottermoser's description of a soluble form ootained by reduction with staunous nitrate. Colloidal gold is prepared by Zzigmody by reduction with formaldehyde and then dialysing. Liebermann has directed fresh attention to the alka. line reaction given by some glass apparatus, which might affect analyses. Robin revived the well-known test for nitrites in drinking water, where iodine acts upon starch when acidulated with acetic acid in the presence of iodide of potassium and nitrites. The use of formaldehrde in pharmacy as a preservative has caused the various tests in use for its detection to be compared, and C. E Smuth has published 2 modification of Legler's ammonia method which is quantitative. Endemann has given 2 useful table showing the action of formaldehyde on phenolic compounds by evaporation and addition of strong sulphuric acid and noting the coloration. Fenton has discovered a volumetric method of estimating sodum by means of dihydroxytartaric acid in the presence of permanganates. Work on the various
alkaloids steadily progresses, and gradually: the compusitiona of thesc cunaplan uigana mulecuies are being revealed as the result of patient research. Mattindale, in Schmidt's laboratory; has investigated corydaline and examined its reduction compounds. Orloff has prepared pure physostignine in a crystalline form, and F. da Silva has devised a new reaction for this alkaloid which depends upon the fact that a solution in strong nitric acid yields on evaporation a green residue. Merck, Harnack a:dd Petit have worked on pilocarpine and pilocarpidine. A new color reaction for veratrme has been detected by Laves depending upon the action of strong sulphuric acid with a small quantity of furfuraldehyde. The separation of brucine from strychnine is of interest as the new B. P. method in assaying extract of nux vomica is open to objection. Sandor has recommended treatment with permanganate in acid solution, which completely destroys brucine but leaves the stry chnine unaffected. bailey and lange show that the action of sulphuric acid on strychnine by charring, as usually, pursued in forensic investigations, resulted in a loss of fully 50 per cent. of the strychnine. Emetine and ceptrane fave becaturner examaned by Paul and Cownley, and also by Hasse, it, order to affix their formule. Puckner proposed a modification of Keller's method for the assay of belladonna and henbane. Niew alkaloidal reactions have been published by Brunner and Stryhonski, in which tables are given of the effect obtained by means of chloral hydrate and sulphuric acin, bromal hydrate and acid, paraldehyde and acid, furfural and acid, and also nitrophenolpropionic acid.
The chemistry of essential oils is still going strong. Umney has given particulars and constants for oil of dill, oil of lemon, and nil of spike. Schimmel have continued their regular reports and researches. Parry has described the physt. cal constants of the oil of eucalyptus toxophleba : tardy, the oil of bitter feranel; Bertram and Walbaum, oil of basilicum from the island of Reunion ; Bialobrzeski, oil of buchee. The characteristics of oil of spearmint as given in the American pharmacopocia are not inconsistent, according to Kremess and Schreiner with an adulteration of 33 per cent. of cedar wood oil and 16 per cent. of gurjuse balsam.
The preparation of synthetical perfumes or of the odorous principles of essential
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## SOIEPMT

oils proceeds apace. Iso-eugenol is the subject of a recent patent; violettone is a competitor with ionone, and rhodinol and anethol have been the subject of much work.

Darmstiedter and Lafschutz have cun tunued their researches on the chemistry of wool fat. Wijs has studied Hubl's method of iodine absorption in the case of oils and suggested a modification con sisting of a sulution of iodine monochlo ride in acetic acid as absorption is much quicker than by the original method. Grier has related his experience in taking the melting point of soft paraffins and indicated a new method depending upon coating the butt of the thermometer with the paraftin and allowing it to dip below the surface of a beaker full of mercury. Another method, suggested by Crossley, depended upon capillary attraction of a melted body, the moment that a rise is noted being taken as the m.p. The detection of cotton-seed oil in lard is an old difficulty with analysts; Tortelli and Ruggeri suggested a modification of the well-known Bechi test, which is capable of detecting I per cent. of the adulterant. A novel method has been suggested in our column of Science Notes for the detec tion of tallow in lard, depending upon the fact that melted lard when cooled and dissolved in chlorofor.n gives off no air bubbles, whercas tallow does. Some easy tests for the purity of turpentine are used at the Custom Houses in Germany, shak ing with hydrochloric acid and noting the rise in temperature, being the principle. The use of guaiacum wood oil as an adulterant for otto is the most recent ad dition to the long list of contaminations and as it has a crystalline character and mild, agreeable smell it can be used by itself. No direct test has been proposed, but the mp . of genuine otto is never be low the limits of the new B.P. A quick method of distinguishing quaiacol from cr cosote, according to Vrenens, is to evap orate 2 drop with a drop of nitro mutiatic acid, the former gives needle shaped crystals, the creosote only an cilly resi due.

Dowzard has devised a quick method of standardization of tincture of strophan. thus, and determines the coloring matter of saffron by comparison with a solution of chromic acid of known strength. Wanters suggested a test for saffron depending upon the tinctorial power dyeing a sample of wool, cotton and silk in the presence of tartaric acid.

Adam has give the amalytical data for huile de cade with the concluston that most of the commercial article is adulterated. Organceghecrophosphateshavelicen produced by Aarian and Trillat. The chemastry of thyroid gland has adsanced sunce the discovery of thyrodintey Baeyer, and the presence of ivdine has been suggest ed by MelWalter as a means of standardiz ation. Swinton found only traces of iodine in the preciputated extract, com monly called thyroidin, used largely in hospitals. Stanford has fallen foul of this statement and maintains that the iodine was not extracted by the method used. He has also introduced a new preparation of the gland, called thyro glandin, which he claims to contain all the properties of the g!ands. Wroblewski has prepared pure diastase by a method based upon the fact that diastase is insol uble in alcohol above 65 per cent., but soluble in 45 per cent. Several new methods have been suggested for the determination of uric acid in urine; Ray leigh stated that nitrogen evolved from urea by the hypobromide method is ac companied with nitrous oxide. Smith estimated nitrous ether in spirit of nitre by adding silver nitrate, chlorate of pot assium and nitric acid, and determining. the silver salt by means of io potassium sulphocyanate. Gladding estimated boric acid by distilling the borate with metnylic alcohol and hosphoric acid, and litrating the distillate after the addition of glycerin with standard soda. The action of hydrogen peroxide on carbohydrates in the presence of a trace of ferrous iron has been studied by Cross and Bevan, whilst Fenton has carried the research to the sugar group. Smith has compared the accuracy of titrimetric and gasometac methods of estimating hydrogen peroxide in the presence of preservatives.

Mona extracted nickel from its ore by combining the metal with carbon mon oxide. The absorption of $\mathrm{CO}_{2}$ by magnesia was not so great as was suspect ed, according to Paul and Cuwnley, and has reference to the keeping of Gregory's powder. Reduced iron is not satisfactor, according to Peck and arsenic is usually present.

Reference should be made to the loss $t 0$ chemical science in the death of L.ord Playfair and George Dragendorff.

## phaRMacognosy.

New drugs do not require much space as the references to them are so meagre that much more work is required before
they attain sufficient importance to find place in our dispensatones and pharma. copreas. Chone glabra, a native of the Winduard Isimatis, has geided a volatile oil, but no other characteristies, to Paul and Cuwnics. Dunstan has also separ ated an urganic bud, from thes oil, but no medical detads have heengen. The drus is used hoully as an aphredistac and tona:. Neurobena lubata, from the same mbands, has an athalond to which is at. tributed its virtues as a sulistitute for quinine and antidysenteric remedy. Fefleer cxammed the cactus alkaloids with the result that pellotine has revealed its compositon. Scueral alkalonds have been isclated from the mescre plant by the same author and the results confirmed by White, and their physological effects studied by Dixon. Briefly, they are car. diac stimulants. Oxscannabin can be obtained from cannabinol according to Dunstan and Henry, and has a sumpler formula than that assigned to it by Bulas and Francis. Phallin is the porsonous substance present in species of amanita according to Kobert. Gruetiner has isolated iat, tannin and sugar from hamam. clis. Ough found that hamamelin, the dry alcoholic extract from hamamels, prepared by strong alcuhol from the leaves. was much more efficaciuus than that pre pared from the bark. Kain has discovered a new glucoside in senega root and found the three chicf constutuents of an aqueous extract to be senega-saponm, this new lavo rotatory glucoside and sac charose. Houghton, in a communication on aseptic ergot confirmed Kobert's statement that the most satisfactory test of the activity of ergot is obtaned by means of feeding fowls with it. An active preparaton darkens the combs and wattes and ultmately gangrene. Alarge proportion of the drug, as offered in commerce, is unfit for medical use according to this author. Bourquelut and I lerissey found that the pectin of gentian root yielded mucte acid when treated with nitric acid, and hydrolued with suiphuric acid gave aratmose. thus resembling the jectur of beet-root. Bourquelot and Nordin have exammed the sugarfromgentian, it is dextro-sotatory, white, does not reduce Fehling's until inverted. Hartwich drew attention to a false sarsaparilla coming from the Amazon River, and closely resembling true sarsa, but withont calcium oxalate or starch. Stockman has described the history, source and constituents of arrow poisons. Kiliani is still working at digitalin and
digitoxin, which he considered identical; his formula for digitalin is now $\mathrm{C}_{35} \mathrm{H}_{50}$ $\mathrm{O}_{14}$. Keller considered digitoxin the most potent constituent of the drug and the chief ingredient in digitalin, he also published a method for its determination in the leaves. Fromme followed with an examination of commercial digitalis,showing the amount of crode and pure digitoxin contained in leaves of different months. Indian henbane has been shown by Dunstan and Henry to yield pure hyoscyamine to the extent of 0.1 per cent. and unaccompanied with atropine. Indian podophyllum has been examined by the same authors, who found the same constituents at exist in American rhizome. Mackenzie has examined the various constituents and found some of them more active than the corresponding resins from ordinary podophyllum. Millard found that manufacturers were introducing pod. ophyllin resin, made from Indian instead of American podophyllum, and calling it B.P. He also gave a test to distinguish the two resias due to the insolubility of the Indian resin in proof spirit with a small quantity of alkali. Cowan examined coiamercial samples of kamala and confirmed the adulteration to which this article is subjected; the ash varied from fortyone to fifty-three per cent. He also found slip-pery-elm bark powder containing common flour. Sayre has studied official rhubarb and compared its microscopical appearance and micro-chemical reactions with common rhubarb and canaigre root. Kraemer described wild ginger (asaram Canadense). Naylor confirmed Boehm's statement as to the presence of cascarilline in cascarilla bark, an alkaloid resembling choline. Cooley described the essential differences between the bark of juglans cinerea and $\sigma$ nigra and gave methods of distinguishing the powders. Bosisto drew attention to an Australian drug, daviesia latifolia, which is used as a remedy for low fevers, hydatids, etc., and Paul and Cownley found a glucoside in the drug.

The importance of microscopical exam ${ }^{-}$ ination of drugs is daily being recognized. Day read a paper on the subject which should be most useful to students as the method of preparing the specimen, clear. ing the tissuc and general tecimigue were fully described. It may be added that good works on this subject are not num. erous, but Gérard's "Traite Practique de Micrographic" and Strashurger's " I'ractical Botany" are most useful.

## PHARMACY.

Full reference has already beenimade to the new B.P. and to many of the comments on the pharmacy of that volume. There has been published also a "Farmacopea Venczolana," which is the first Venezuclan pharmacopocia. It is Spanish with Latin synonyms, and partakes of the nature of a treatise on chemistry and pharmacy as well as drugs. It is up to date and has none of the conservatism noticeable in older established pharmacopœias. For instance, it includes ethyl chloride, mate, ingluvin, kava-kava, apiol, aristol, thalline, exalgine, guarana, etc. A novel list at the end comprises first those proprietary preparations approved by the medical corporation, whose medicinal composition is known, and a second list, which has not been submitted for approval, but which are in common use. The two English-speaking parliaments of pharmacy, the American Pharmaceutical Association and British Pharmaceutical Con ference, met in Baltimore and Belfast respectively; the new president of the A.P.A. being Chas. E. Dohme, of Baltimore, and of the B.P.C., J. C. C Payne, of Belfast. The proceedings of the American body are of greater interest as prac tical every day subjects, such as the ex. treme cutting by departmental stores, are considered by the commercial section. The nearest approach to this at Belfast was a perfunctory and inconclusive debate on the unsatisfactory features that surzound the revision and publication of the British Pharmacopœia. An interesting question has arisen as to the liability of the magnesia in Gregory powder to absorb moisture and CO , from the air, as the result of a prosecution in England of a chemist for the presence of carbonate in the powder. As the result of several communications there can be little doubt that little or no absorption takes place when stored in a closed boute only open. ed at intervals. The presence of a notable percentage of magnesia carbonate can be more easily traced to the cheaper nature of this chemical. The effect of heat in altering the $s_{1}$ ecific gravity of oil of theobroma has been noted by White and Braitheraitc, so tiat a 15 grain suppository may vary $1 / 2$ gran according to the tume allowed for tis removal from the mould.

Percolation under pressure has been the subject of several communications, and is obviously of much value with drugs that tend to clog the percolator. Angosti recommended creosote in pills, to be
made up with liquorice powder and water. Kieselguhr or dialomite has been lauded by Moss as invaluable for tooth powders, as a dus' ing powderand filtering medicine. Arny concluded that there was very little differenceinmedicated waters made by different methods, such as percolating through cotton wool impregnated with the oil, or diluting the oil with calcium phosphate or using hot water. Chamberlin has dis covered bacillus subtilis in a solution of citric acid used lor rapidly producing liquor potass. citratis. He recommended sterilization as a remedy. Pencils of yellow oxide of mercury arerecommended by Babcock for ophthalmic use, containing twenty grains to the half ounce of oil of theobroma. Shoemaker has suggested an ingenious method of benzoinating lard by means of an ethereal tincture of benzoin, which is evaporated with castor oil so that the oil has all the odor of benzoin. The addition of a little white wax is necessary when adding this odorous ont to lard to compensate for the liquid. Squibb has returned to the subject of extraction of drugs by means of acetic acid instead of alcohol, and is evidently convinced in its favor. But no statement as to the keeping properties of a fluid extract so made is vouchsafed. Cowley and Cat. ford, on the other hand, show that acetic acid has no advantage over weak spirit for the extraction of colchicum seeds. Hahn recommended acetone as a solvent for the extraction of jalap, podopifyllum and scammony. He does not explain that it is belter and cheaper than duty-free alcohol, which is the crucial point. The pharmacy of cantharides has been elaborately worked out by Greenish and $W_{i l}$. son, and new formule suggested for all preparations. The plasters of belladonna of commerce are not all they should be, and pharmacists should be careful to buy only those of reputable makers, who will give a written guarantee that they answer the requirements of the B.P. Julliard pointed out the incompatability of fluid extract of hamamelis with that of hydras. tis. A thick gelatinous mass separates after a short tume. The stability of calomel, even in the presence of chlorides, acids and albuminoids has been reaffirmied by Jovanne. Methylene blue is not a nice article to make into pills, or to han. dle at all. The suggestion to use crystals and rub with glucose and roll in charcoal obviates most of the trouble. Mcivalter has described the pharmacy of the pancreas and also of the organcids-a name for pcpsin and othè animal prod.

## Extract from Prof. Heebner's Report.

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1. Whether a given sample of Belladonna llaster is made of Belladonna, or is compounded from some other drug or drugs, or filien with mydriatic alkaloids for assays or other purposes.
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In other words, a procees which will enable any buyer or prescriber to judge of the reliability of the Belladonna Plasters on the markrt.
Further details and information as to this award will be made upon application. The award w.ll be made by a commatte of pharmaceutical and medical authorities to be hereafter named.

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To be had from all Wholesale Druggists in Montrcal, Toronto, Ilamilion and London, Ont., and Winnipeg, Man.
ucts, such as tingroid-wulh useful sug. gestions for the improvemert of pharmaceutical preparations. Barclay inas detailed standards for all ofticial tinctures. As we write, the proposed Indian and Colonial Addendum to the B. P. has been issued in draft form and sent to the various authorities for criticisms and sug. gestions. This is, perhaps, a happy precedent for future revision of the B. P. itself.

## therapeutics and New reallidies.

In the purely physician's department of therapeutics, nothing has agitated the minds of the prifession more than the claim on behalf of Behring's patent for diphtheria antitoxin serum. This procedure, although it may be strictly cortect, is so repugnant to the best feeling and interests of the medical profession that condemnation has been unve:sal. The general opinion is that such a step is lowering to the reputation and dignity of a distinguished sazant, but Behring retorts that this is a matter that only concerns himself. The successful use of glycerophospate of lime has caused.idrian and Trillat to prepare organic glycerophosphates including those of quinine, cocaine, etc. The value of bromide of potassium in the reatment of whooping cough has been noted by some observers; and Tilho claimed excellent results with ro per cent. solution oí citric acid in simple syrup for the same complaint. It is specially mentioned as most useful also as a prophylaxis. Judd tried large doses of calomel in cases of diphtheria with success; he administered :o grains to a child of is months, with 5 grains every hour after for 8 hours. With adults the dose was 20 grains for a start and 10 grains after until 360 grains had been given. No ill effects from the treatment are stated to have occurred. Testevin used a decotion of scoparius as a local application for erysipelas. Renzi em. ployed iodoform and tannin in phthisis. Temieres recommended an emulsion of euphorbium resin containing a guarter of a milligram in each cc. as a dose as injection for the same disease. Spermatic neuralgia was relizved by Domingo by internal doses of 10 centigrams of methylene blue every other hcur. Tunnichiffe found guaiacolate of peperidine of considerable service in phthisis. It is fairly soluble and has none of the irritating properties of guaiacol, whilst it is an ef. ficient vascular and nervine tonic. Iodoform and calomel have been recommended
is the treatment of wounds. (ilycerol of terebene has been suggested as an anti septic dressing, it is a viscous combma tion of terebene with glycerin. Cheli domum, suddenly vaunted as a remedy for raveer, has been tried and fonnd wanting.

Monsonia is a Cape plant that has a local reputation as a remedy for dysenters. P'elargonium reniforme, also be longing to the same natural order, is highly spoken of for the same complaint. Blepharis capexsis enjoys great repute among the Kaffirs in the treatment of anthrax, and Blaine successfully treated 2 case with a lincture made from the herb. Fluid extract of glaucium lateum is stated by Marpmann to be useful in diabetes in $1 / 2$ drachm doses three tumes a day before meals. Luff has published some important researches, and also a work, upon the treatment of gout. He favored certain mineral waters and a vegetable and fish diet, although not exclusively vegetarian. Hydrastis has been recommended in the treatment of bronchitis. An interesting research by Chittenden and Gies indicated that borax and boric acid, largely used as food preservatives, have no effect up to 45 grains daily. They also show that atcoholic drinks have little effect on the digestion, as the retarding effect of alcoholic upon the activity of digestive Ruids is counterbalanced by increased secretion and rapid absoption of the alcohol The action noted some years ago that potassium permanganate was an efficient antidote for morphine has been confirmed by Sayre, who reported upon seversl poisoning cases. The latest suggestion for sterilization of instruments is that of Wright, who dips instruments and glass syringes into olive oil at a temperature of $160^{\circ}$ to $180^{\circ} \mathrm{C}$. Some pracical experiments by Belcher indicated that common salt hastens the hardening of plaster of paris, whilst a small quantity of glycerm is sufficient 10 retard the setting. He found that two drachms of plaster, mixed with one drachm of a 5 per cent. solution of salt, set in two minutes.

The steady flow of new remiedies continues, and the diary of an English journal of pharmacy has compiled a list of nearly 100 as having seen the light during 1898 . Fortunately Darwin's gener al zation as to the survival of the fittest applies more clearly to these new remedies than even to human beings. The tendency to adapt trivial names to true chemical compounds is on the increase

Amongst the mote important compumbls are:

Anilifirin, a comblmatum of acetam lide and annpsrm, recommended in rhemmatism, milluena, etr., in doses if 51015 grams.

Arsentaminc; a substutute for stlvet nitrate for meecoons and as an eve doup in 5 per cent. solution ill water.

Bromation (bromeity) lowme, nown mended for epmepsy $\ln$ dones of $3 \times 16$ 10 grains dals.
liremipin, produced from onf of sesame and bromine, and given in eplepes in doses of 1 to $a^{\text {teaspoonfuls per dem. }}$

Capiol, from tanmon and ch'oral, sum gested as an appheaton to the scap ill seborrheed capitis, in a 1 or 2 per cemt. alcoholic solution or ontment.

Diodoform: (ethylene telrandede-), bre pared from ioduae by means of calrum carbide, and used as a substhtute for iodoform.

Euphthalmine Mydrochlotue, a power. ful mydratic, and stated to be supertor to bromatropine.

Geosote (guanacol valerianate), a nonmritathing substute for guatacol, and vaunted for its propernes in rehevang pulmonary catarrh, etc.

Flamatogen, a liqud contamms hiemoglobin, and recommended for anerma, scrofula, etc.

Heroin, a new orgabie dermative of morphine, clamed to have sperthe action in coughs, and superior to codetme.
lodoformosen, a cumpound of rodoform with albumin.

Larsin, the name green by Peczull to a new compound of silver and albumm. S ated to have prompt action upon gonococci, and used as mjection and ejedrop.

Ossalin, an ointment base, prepared from toone marrow.

Phenusel (phenaceture salicylacetate), introduced as a remedy in neuralgia and 2s an antipyretic moses of from $\equiv$ to 10 grains.

Protargol, another silver compound suggested to replace mitrate of silve eats much less irritating.

Sahabrol (dimethylene antup) bun bo mide), used ia dentistry as an antisepiac and remostatic.

Tannigen, tasteless astringent for chrome and acute diarrhes in doses of 5 to is grains.

Thyros/andin, a patented preparatoon of thyrord gland.

Validol, a comisnation of menthol and valerianic acid, stated to be a spectic for
sea-sickness and powerful carminative. It is inhaled and taken internalls in 5 to 10 drop doses.

Valerydine, a compound of phenacetine with valerianic acid, recommended as a remedy in hysteria, neuralgia, etc:, in doses of 8 to 16 grains.

Xeroform, a combination of tribromo. phenol and bismuth; praised by Kaiser as a substitute for iodoform.

## motavi.

Progress is chiefly to be recorded in physiological bntany, where many able workers have been engaged in elucidating phenomena for years past. Darwin controverted former statements that stomates of marsh and aquatic plants do not close when the leaves are gathered. The function of stomates is a source of considerable discussion amongst botanists. Ramann found that no diminution of the mineral substances in leaves takes place during the autumn. The same author also found that potassium and phosphoric acid greatly preponderate in the ash of the pine pollen. Stoklasa reported that arsenic has a highly poisonous effect on plants, although in the presence of superphosphates it is not injurious as long as the quantity does not exceed 0.3 per cent. Strasburger has contributed to our knowledge of the celt wall, especially as regards the growth or increase in thickness. Green has reviewed the advances made in the study of fermentation under the action of soluble enzymes, and has drawn attention to secretion of an alcoholproducing enzyme by the yeast-cell. The gum in elm.galls, according to Passerini, is different from arabin, dextrin and other gums. It is strongly dextrorotatory and reduces Fehling's solution. Emulsin has been detested by Hérissey in several lichens. The incense trees of the West Indies have been identified, the resin yielded by Protium guinceose being identical with that used in St. Lucia, Cayenne and Venezuela. Farlow has published a treatise on the distinctions between edible and poisonous fungi. Dassonville found that salts of potassium and sodium have opposite effects on the tissues, the latter increasing and the former retarding the rigidity of the plant. An excess of carbon dioxide in the atmosphere tended to increase the length of the stem of lupins and other plants, according to Téodorisco. Stoklasa has confirmed the statement of Molisch that iron is not a necessary constituent of chlorophyll. Ratz found that fungi have
the power of forming diastase, and that the presence of starch is not essential for the purpose. It will be rememhered that taka-dıastase is prepared in this manner according to pubhshed statements. Chlorophyll has been produced in the dark by Etard and Bonilhac, but the interesting problem was not selled whether this product was physiologically act ${ }^{\circ}$ e. PHOTOCRAPILY.
Progress in this department has been steady, but no epoch-marking discoveries have to be noted. The enthusiasm upon the subject of three.color photography has waned considerably but in practical printing some interest is still focussed on the method, the principal drawback being the initial expense.

Chemists shouid take advantage of the numerous practiral hints and formulie published in our section "Photographic Notes" from time to tume. There is also a good field for compressed tabiets of pyro, eikonogen, hydroquinone, etc., and for toning purposes chloride of gold and sodum suitably diluted. The work of the amatcur photographer is considerably lightened by having these in definite weighed quantities ready to hand when required instead of solutions that spoil by reeping. Ortol is the name of a new developer which has advantages over pyro, eikonogen, etc. The objection to the poisonous nature of mercury intensifiers has led to the introduction of others that are harmless.

Among these the copper sulphate formula (C.D., July, 1898, page 162) and uranium are the best. The old cadmium intensifier is a fraud. Velox paper has strong recommendations for winter work, it can be manipulated in candle or gaslight. Acetc $1 e$, in conjunction with pyro, is recommended as an improved developer as it does not stain either fingers or negative. Formaldehyde has been recommended in a similar fashion with hydroquinone, but intended for live work. At recent exhibitions gum bichromate photographs have received a good deal of praise, as the effects are very pleasing, but, as much of these is due to judicious manipulation with biush, it is hardly pure photography. The conversion of Eastman's Photographic Co., into Kodak, Limited, with an immense capital, quickly subscribed, is one of tie events of 189 s .

The drug trade is not on a push cart, but it needs to be pushed nevertheless.

## Montroal College of Pharmacy.

sessional. Exa lination.
The Christmas examimations of the Montreal College of Pharmacy were closed on Thursday, December zznd, with the following results, the names of students in the separate classes being placed in order of merit as follows:

Materia Medicn, Junior Class.-J. W. MeFarlane, A. S. Hart, D. G. Scoll and M. Albert, equal ; A. E. Baldwin and L. G. Ryan, equal ; W. Joseph Shea. W. J. McKindsey, Bernard Fox, J. A. Dearden. Materia Medica, Senior Class.-N. Guerin, G. Richard, Miss A. A. Irevost, P. Wergeron, J. B. Bisaillon.

Chemistry, Junior Class.-Joseph Va. lois, E. Valboncceur, Roger Pascuuin.

Chemistry, Senior Class.-A. J. Bedard, A. T. Christe, A. E. Baldwin.

Botany Class. - A. J. Bedard, 11. Guerin, L. R. Veaina, H. St. Georges, A. E. Baldwin, G. Richard, A. T. Christie, A. S. Hart, H Genereux. P. E. Bromilet, Oscar O. Paquette.

The next sessional exammation will be held at the end of March, which will close the college session of $1898 \cdot 99$. The marks then obtained will be added to those now obtained, the combined result showing the standing of the students entitled to certificates.

## Never Fear Competition.

Of course it's a good thing if you've got the only article of the kind in the world and everybody must possess one or more of these articles and nobody else on earth can supply the demand. But don't expect to step into anything of this kind when you go into business. Competition won't hurt you, provided you handle the right kind of goods and treat your trade fairly and honestly. The frıends of Benjamin Franklin tried to dissuade him from starting a newspaper because there were two other papers in America.

A very curious presentation of the number of Irishmen, of the stamp of Wolseley in England, the Duke of Tetuan in Spain, General O'Brutscheff in Russia, Viscount Taaf, in Hungary, who are leaders in many nations, is given in the Javuary Cosmopolitan under the title, "Irish Leaders in Many Nations." It will be found interesting to all who have even 2 drop of Irish blocd in their veins. "The Jews in Jerusalem" is another article in the same number possessing nterest for a large class.

## GOMBAULT＇S Caustic Balsam

## ${ }^{\text {Sontiv }}$ Genuine <br> Whe seated brimbary remeds

 and blister in the warketPut up with b its Eingllah and French directions
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## Trade Notes

R. F. Greer has opened a new drug store at Oxbow, N.W.T.

Dr. J. D. Lambert is opening a new drug slore at Elgin, Manitoba.
D. A. Dickson, fornierly in P'reston, has opened a new drug store in Galt, Ont.
W. J. Burke has purchased the drug business of I'. Mathieu at Windsor Mills, Que.
J. A. Wright has opened a store at Boissevain, Man., with George Hill m charge.
The drug store of F. Woodhull is Co., Hartney, Man., was destroyed by fire Jan. 5th.

Arkell \& Co. have purchased the drug business of Dr. Haworth at Macgregor, Manitoba.
W. H. Speer has purchased the drug business of Dr. Brothers at Shoal lake. Manitoba.
D. E. Munro has purchased the drug business of W. Murchison, Queen street West, Toronto, Ont.
N. W. Emerson, London, Ont., has moved his drug business to Dundas street west, near Talbot street.
J. M. Spencer, formerly with Elliott \& Co., Toronto, will now travel for Evans \& Sons, covering Western Ontario.

The Druggists' Corporation of Canada, Limited, have moved to their new ware house 46 Lombard St., Toronto. Mr. Edward H. Woolley has assumed the management.

## Manitoba.

The Minor Examinations of the Pharmaceutical Association of the Province of Manitoba were held in the association rooms, Winnipeg, on the 16 th of December last. Twelve students appeared before the examiners at this sitting, nine of whom vere successful. The following are the nar - iccessful students :
M. West ay, Miami, Man.

Wm. Young, Neepawa, "
A. I. Brooking, Winnipeg, Man.
H. M. Cameron, "
F. T. Atkinson, Brandon.
D. E. Clement, "

Joc Robinson, Winnipeg.
W. E. Lang, Brandon.

Arthur Brown, Winnipeg.

The examiners were Mr. C. Flexon, Mr. Alexander Camphe:ll. and Mr. A. K. I, conard.

## Examination papers.

Chemisiry.-C. Flexon, examiner.
Materia Medica... "
Dispensingr.-A. Campbell, "
Pharmasy.--
Presiriptions.- A. R. I.conard.
A meeting of the council of the Pharmaceutical Association was held at the Clarendon Hotel, Thursday, Dee 2gth, 1898 , for the purpose of receiving the report of examiners for the recent examinations.

The following members were present: President C. Flexon, J. F. Howard, W. Pullord, A. R. Leonard, A. Campbell, Treasurer E. D. Martin, and Registrar W. D. Macdougall.

The report of the examiners was brought in and was found entirely satisfactory to the members. Nine of the twelve members participating were successful.

Mr. William Young, of Necpawa, was awarded the association silver medal for general proficiency. Eighty per cent. is required to entitle a student to the medal. Mr. Young secured $3 .+$ per cent.

## Pharmaceutical mayors.

Anongst those who 'ave been honored by their fellow-citizens and given the position of Chief Magistrate in their various municipalities at the recent elections in Ontario we find a number of prominent pharmacists. The following among the number:

Thos. Payment, Mayor of Ottawa. Dr. Brien, " Essex.

$$
\begin{array}{llc}
\text { J. A. Hacking, } & \text { " } & \text { Listowel. } \\
\text { Dr. J. Urquhart, " } & \text { lakville. } \\
\text { W. MrSween, } & \text { " } & \text { anmington. }
\end{array}
$$

## Death of Mr. Hugh Miller.

One of the most familiar faces in Canadian pharmaceutical circles, as well as one of the most prominent of Toronto citizens, passed away, in the person of Mr. Hugh Miller, on Christmas Eve, Dec. $24^{\text {th }}$.

Mr. Miller was bora in Inverness, Scotland, in 1818 , and, consequenty, at the time of his death, was in his Srst year. In 1841 he came to Canada and settled in Toronto. He had served his
apprenticeship as a chemist in has matue country, and on comung to foronto secured a stituation first in the retall stote of Mr. Bettridge, King street east, and afterwards with the firm of I.gman, Parr \& Co (now l.jman Brothers A Co.), with whom he remaned for some time, and in : 8.45 be commenced bust ness for homself in the store at 107 King street east, where he conmued until his death. Mr. Miller was one of the hirst Councol of the Ontaro Collese of thar macs; and took an active meteret in all pharmacentical matters. He was abo for mans years a member of the loronto Buard of Trade, and twenty five years ago was made a justice of the l'ence. Four years ago he was appointed Assistant Police Magrstrate, a position which lie filled with conscientous abilty, and which he occupted up to the tume of has decease.

He was also an active member of St. Andrew's Society and the Gaelic Society, and was a last Master of St. Andrew's l.odge, A. F. \& A. M. Mr. and Mrs. Miller celebrated their golden weddmg on June Sth, 897 . On that ocea ston they were presented with eacy chars by the Scotch residents of the city. Mr. Miller was presented with a beautiful illumnated address segned by Col. Cosby, president of the St. Andrew's Soctety . Mr. Alex. Fraser, Grand Chief of the Sons of Scotland; Dr. Damiel Clark, president of the Caledoman Society; and a number of promment Scotchmen.

Mr. Miller was an carnest Prestoy. terian, and, in the olden dajs, a member of St. Andrew's church, when that phace of worship stood at the comer of Church and Adelaide sireets. Afterwards Mr. Miller joined Cooke's Church, on Queen street, and later became a member of St. James' sepuare church, of which at the time of his death he was one of the old est and most howored inembers.

Mr. Miller married the daughter of Mr. William Dow, late of Whithy, and formerly of Banff, Scotland, vhere Mrs Miller was born February Stin, iSzo. With the widow, four out of seven sons and daughters survive. They are: Mr. Kenneth A. Miller, of the Crown lands Deparmment, Parhament Buidungs Mrs. Thomas Duna, of Victoria, Braish Col umbia; Miss Miller, Toronto, and Mrs Mclean, Toronto. There are no fewer than wenty four grandchildren.

The interment took place on Tuesday, Dec. 27 th , from the residence, 243 Jar . vis street, to the Necropols, and was very largely attended, not only by the vario ss societies with which the deceased was connected, but also by a large concourse of citizens.

## Pharmacoutleal Assoclation of

 Manltoba.The following were the questions submitted at the Minor Examination, held Dec. 17, 1898:

## CHEMIS'IKY.

E.raminer.-C. Flexos.
(1) Show, by chemical equations, how potassium hydrate is produced by decomposing pot. carb. with milk of lime, and pot. brom. by adding bromine to a solution of caustic potash.
(2) Describe briefly the Le Blanc process in the manufacture of alkali.
(3) Give the process for preparing bismuth oxynitrate.
(4) Explain the following definitions: Base, acid, salt, anhydride.
(5) Describe clearly the method of preparing acid sulphuric, and state the properties of the acid.
(6) What is meant by a double salt? Mention one and give its composition.
(7) Give the processes for preparing oxygen and nitrogen.
(8) State $A$ vogadro's law.

## MATER1A MEDCA

Eraminer-A. R. Leo:axis.
(1) Name three B. P. herbs, giving habitar, natural order, and preparations.
(2) Give source, habitat and natural order of following: Cantharides, gentian, Calumba rhubarb, cubebe.
(3) Is terebinthina a resin, oleoresin, or balsam, and why? Name matural order.
(4) Classify the following drugs, and state why, briefly: Ol. tiglii, camphore, benzain: nux vomica, caryophyllum.
(5) Name two B. P. preparations of which the following drugs are a part: Belladonna root, hydrastis, guaiaci resina, ipecactianha, jaborandi.
(6) Tragacantha. Source, natural order, babitat, part used, with character. istics.
(7) Cinchona bark. Name official deritives, with doses.
$(S)$ Oral.

## DISPENSINr:

Examiner-i. Camplell.
Dispense the following prescriptions:
1
Iodoformi . . iss Ung. Petrol.
M. ft. Ungt.

Sig. Bis. in die. ay,
Mr. James

Ol Recini . . $\bar{j}$ iss
Gum. Acacir . 亿.s.
Syrupi . . $\overline{\mathbf{3}}$
Aqua ad. - $\overline{\mathrm{a}} \mathrm{iv}$
M. ft. Emuls

Sig. Jiss. hor. som.
James Hinks
Plumbi Acet. . gr. i
P. Opii . . . gr. i
M. ft. pil.

Mitte tales . No. xii
Sig. i om. ter. hor.
Thomas Brown
I
H

1K

$\begin{array}{lll}\text { Pv. Kino } & \cdot & \text { gr. ii } \\ \text { Sacch. Lac. } & \cdot & \text { gr. ii }\end{array}$
M. ft. pulv.

Nitte tales . . $x$ ii
Sig. Una t.i.d. Sumend.
Mrs. J. Robinson
Ferri Sulph. Ex. . gr. iiss
Potas. Carb. . . gr. iiss
M. ft. Cap. No. i

Mitte - . .No. xii
Sig. Cay. $\mathfrak{i}$ ter in die p.r.

## PHARMACY.

Examine:-A. Campbell.
8. Tell briefly what you understand the following terms to mean: Carbonization, Sublimation, Deflagration, Fusion, Calcination.
2. (a) How would you determine the specific gravity of a liquid lighter than water; also of a soluble salt? (11) One pint of liquid weighs 24 oz ., what is its specific gravity?
3. Describe: A sand bath; a water bath; a steam bath. How would you fix a water bath to increase its heating power?
4. What is the difference between a Hydrometer and a Thermometer. Convert $210^{\circ} \mathrm{C}$. into $\mathrm{F} .: 62^{\circ} \mathrm{F}$. into C .
5. Evaporation in Vacuo (a) Des. cribe the apparatus necessary for the operation. (b) What is meant by Des. tructive, Distillation and Fractional Dis. tillation.
6. Write a formula for + ozs. solution containing $3 \%$ Cocaine, $4 \%$ Boric Acid and Waier q.s.
7. Give best excipients for forming (1) a White Quinine Pill ; (2) one containing Creosote; ( 3 ) one containing Potas Permang.
S. Give emulsifying agent and pro. portions for preparing an emulsion containing ( 1$)_{3}+02$. mixture, 50 per cent.

Cod Liver Oil, (2) a +oz mixture containing 3 dr. Turpentinc.
9. Give 13. P. 1898 doses lor the follow. ing: Tr. Bellad; Tr. Iodı; Tr. Opii Ammoniata; Vin. Colchici; Zinci Sul. phas; Ext. Necis Vonz; Hyoscinex Hydrobrom; Ol. Crotonis; Pot. Bich. rom ; Creosotum; Ext. Cannab. Ind.; Arsenii Iodidum.

## PRESCRIPTI NS

## E.raminer.-A. R, Llonard.

1. Give antidotes for iodine, salts of arsenic, salts of copper, hydrocyanic acid, sugar of lead, chloral hydrate, and when necessary how ptepared, digitalis, strychnine, and carbolic acid.
2. What is meant by therapeutical, pharmaceutical, and chemical incompati. bility? Give an example of each. What is the duty of the dispenser in each oi these circumstances?
3. (a) Write short definitions of the terms mistura, bolus, collyrium.
(b) Give full Latin and Euglish of the following: Q.V., S.S.S., P. Rat fitt, Omni quadr hor., F.S.A.R.
4. (a) Translate into English :
$R$ Tinctura hyoscyami drachmas duas.
Tincture castorel, drachmas duas.
Syrupi rhoeados, drachmam.
Aqua pure, uncias quatuor.
Misc, sumat drachmas duas.
Omni hora si non durmiat.
(b) Translate into Latin:

Solution of acctate of ammonium two drams, syrup of cochineal one dram, spirits of nitre one dram, peppermint water three and a half ounces.

Mix and label. Let the patient take two tablespoonfuls when flatulency is troublesome.
5. Criticize fully the following preserip. tions, and translate into Latin:
(a) Tinct. digitalis - $\quad$ Biii. Chloroform - - $\quad$ iss. Tr. perri terchlor - $\overline{3} s$.
Aq. ad. - - $\quad$ Jqi.
Sig. Three teaspoonfuls every four hours.
(b) Ammon carb. - Bui. $\begin{array}{lll}\text { Syr. scilla } \\ \text { Lime } & -\ldots \mathrm{cr}, \text { ad } & \text { - } \\ \text { iiii. }\end{array}$
A teaspoonful after each fit of cough. ing, followed by a drink of linseed tea.
6. Give incompatibilities of following: Acid carbolic, bismuthi subnit, liq. plumbi subacet, potassi iodidum, acid nit-mur, dil, acid gallicum, acid arseniosum, hydraryri perch!ce, chlori liquor, and Easton's syrup.

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# The Hamilton Cash Register 

IS THE

## National Cash Register

We Guarantee to Save You from $\$ 5$ to $\$ 100$ if you buy a :iAMILTON CASH REGISTER

## Detail-Adders and Total-Adders

OF ALL耳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.

THIS 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. Ihns strip of paper is accessible only to the proprietor and furnishes a permanent record of the busmess done in the store each day:


Do mot be Deceived
by the misteading advertisements of the National Cash Register Co., of Dayton, Ohn, and the mis. leading statements of their agents.
The Hamilton Brass Manufac. Le. nanufacture all kinds of Detail and Total-adding Cash Registers as manufactured by the Natoonal Cash Kegister Co When the National Cash Register Company's agent is quoting prices to you set a deseription in writung, and do not allou hm to tall: you out of it. Ger the number of the Register he is quoting you prices on, then send the number of the Register with the description to the

Bamilton 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 Com. pang's agent.

## HAMILTON CASH REGISTER

Manufactured by the

## Hamilton Brass Manufacturing Co.,

LIMITED

## Practical Sugrestions from Experl-ence.- <br> By Josaril Jacobs, illanta.

In a letter received from H. M. Whitney, president of the association, the request was made that I prepare a paper on the practical side of the profession, and this is presented in compliance.

As a business problem, pure and simple, the advisability of our druggists making a complete line of distuctive preparations is almost universaily admitted, but I do not accept as the sole reason the purpose of replacing patent medicines; for, in the present state of trade conditions, we cannot afford to oppose their sale. Indeed, I contend that when the law bas conferred special patent rights and a manufacturer has spent time, labor, thought and money in fabricating and advertising a preparation, placing it successfully on the market, and a customer applies at your counter calling for this preparation, he is more the customer of the advertiser than jours, and you should not attempt to toist anything else upon him. The instance here stated differs widely from the situation presented by a customer who comes for advice, and demands jour personal and professional aid in helping him out of a state of doubt and uncertainty. In the one case it is the paid advertisement of the proprictary owner that brought in your visitor, in the other, it was your own personal character and reputation. In the first-stated case, you should supply him with his stated want, in the other, it is your clear right, and often your duty, to recommend some preparation of your own. Thus, by fair dealing, you increase your reputation for straightfurfard action, and your advice is stripped of the suspicion of selfishness.

My experience is that the buyer of patent medicines is generally strongly bent upon procuring them, comes to your door in a well-settled mind, and that a strong argument is usually necessary to change the cument of this thought toward your own preparation. "Even though vanquished" he Fill buy, but "argue still" in his own thoughts, and will be restless until he has gone to some other store and worked out his original theory.
But the desideratum is, how best can a profitable trade in articles of your own make be effected? This, of course, opens a wide field of discussion, but I note only one item. The many econ-

[^1]omies of judicious advertising may be conserved. For instance, there are cases where drug men have been argued into spending money advertising "Nerve Debility Remedies" in their locality, paying perhaps as much direct to the maker and to the local printer as $\$ 8$ per dozen for a preparation thes could put up at about $\$ 10$ per gross, and then allowing an article of unknown compo sition to go into their community under the prestige of their names. Instances have even been known where abortants thus duped our druggists. It is strange that these same men do not take the over-plus saved by making some really legitimate and meritorious compound, and spend the advertising money spreading abroad the knowledge of the virtues of their own remedies. It is not necessary nor advisable in many cases to make large contracts for advertising with the newspapers. From experience I have learned that an appearance in your local paper daily of a small ad. of from three to four inches, changing the matter every day and keep ing your own preparations before the public, is test. You will find that it will not be long before that public has become familiar with your preparations, and customers will not only call for them, but, when your advice is asked, you have an easy task to induce them to buy. Advertising like this has a cumulative effect, and, like some medicincs, the more cuncentrated and oftener they are repeated the more cumulative.

The next point I wish to stress is ind. viduality of preparations. Do not simu late in name or appearance any well. known or largely advertised article. Exercise sour brains and ingenuity in preparing for the market something unique and original It is far better to have one original preparation than dozens more or less imitating the patents on the market. It is the height of business inconsistency to allow some manufacturing pharmacist or non-secret house to prepare for you a line of preparations bearing your name, their composition and method of manufacture being as little known to the druggist as the average patent medicine. This practice works a fraud on your communs. ly , besides losing your money. It is a fraud on your customers, because you place your name on a renicdy and its claims as an inducement to buy, when you do not and cannot know that the formula has been fully and correctly followed. It is carrying the agency principle 100 far for fair and upright business
practice. When the com comes from your own mint you can know that it is of the standard weight and fineness.
let me quote one of the stercotyped arguments used by the manufacturers of non secret remedies with their offices full of name blank labels. "Recognizing the fact that many pharmacists cannot, owing to lack of tume, help, promtung facilities, etc., manufacture all the spectalties the; sell, we have, at a large expense, equpped a plant for the manufacture of these goods. Although we are opposed to cheap goods always, we cannot mpose upon the intelligence of the pharmacist by giving hme the formula of our nonsecret remedies (the cost of the mgredr ents of which he well knows) and at the same time expect his lusiness, unless we can furnish prices which would make it unprofitable for him to make the same goods himself." Such literature and ap. peals have misled many druggists throughout the land into having their preparations made instead of manufacturng them under their own eje, and the number and extent, of these non-secret manufactur$\mathrm{in}_{\mathrm{s}}$ concerns seems to be growing every jear. I was about to speak of making goods in the pharmacist's own laboratory, but, remembering how few of our drug stores have a department that can be dignified by that name, I must not use the term in any general way.

Let me shan the failiac of these stereo. typed arguments. No mammoth "plant" is necessar, for success in home manufacture. Lyupment on a reasonable scale, and hely in cunparaticeiy small numbers of employees ate sufficient for a reasunably large number and quantity of specalacs. The tume wan tee had by raing a little earlict and moung a litile quicker, both conducive to longernty and athletic improvement ; the "help" will come for reasonable pay and kind treatment, and "printing facalues" are about as abundant as "proprectary plants," and nu "corner" en therr pruducts, and a like answer is possible for all the "so forths." A salesman for one of these houses in describing how many labels, cartons and bottles, varying in places of manufacture, prices and styles, is neces. sary to be on hand befure attempting to manufacture, will talk you into a maze of kaleidoscopic hughears that will fade and disappear in the lisht of a lutle common sense refiection.

After all, we have the examples of many stores to day having preparations of more or less extensive sale, put up by
the druggist either in his own spuecially designed bottle, or in somic well known staple style, such as Philadelphia oval or union oval. Either a plain stock carton is used, employing the same label on carton and bottle, ot the label is merely placed on the bottle and the package wrapped in colored paper, making a near article.

I herewith exhibnt plain cartons of various sizes, and a few preparations prepared for sale in the latter style.

Let me institute a comparison in the savings on some of these articles. Below are prices quoted by one of the large, and by comparison one of the cheapest, nonsecret manufacturers, of the best-known articles on his list :

| Compound extract sarsaparilia or any other name, if destred, put up in lungnecked bottles, neatly wrapped. | [hizen. $\$ 300$ |
| :---: | :---: |
| Emulsion cod-liver oil with hypophos. phites time and soda, put up in longnecked panels. |  |
| liemale remedy, pat up, in 12.0 oz . panel botkes. |  |
| Kidney and bladder cure, put up in 1202. panel bollles. |  |
| Soothing sjrup, put up in long, round bottles, holding 2 ozs. |  |
| Cough balsam, pue up in 2 oz |  |
| Whooping cough remeds, put up in 4 -or. panels.. |  |
| Childiren's worm syrup, pat up in z.oz. panels. |  |
| Eye water, put up in 1.0 . reund botil |  |
| Corn cure, put up in $1{ }^{1} 2$ dr. vial, and brush............ ....... ... |  |
| Corn salve, put up in 1 i- 0 . wooden box |  |
| Pile ointment, put up in 1 -oz. |  |
| Healing salve, put up in 2-oz. bo |  |
| lair dye, double preparation, put up in two 1-02. French square botter . ... | 3 |

I herewith present a lime of preparations made in $m y$ place, giving the formula and cost of production. I feel confident that the style and appearance will sompare favorably with those put up by the nen-secret houses, and the difference in the cost of production is set before you.

I now submit a line of preparations put up in our store and labeled "Rcbin uaire's," made in Paris. These goods are made to supply the demards of customers who compose a class tant wish a French label on the bottle. But I wish it to be distinctly understood here and everywhere that they are sold by me and by ny force under special orders to be shown when the price of the real French goods is complained at, and with the positive representation that they are home made, and can be bought by the customer if he wishes to take them on their merits, and he buys if he has a lirench fad. But 1 stand here to condemn the practice $m$ totc, and think it
should be generally discontinued, that of placing foreign labels on our American goods. We must all, merchants in every line of trade, stop this appearance of fraud. At the hazard of wounding the poitical nerves of some of our members, I will say that I believe it is the result manly of our tariff system of trade and federal taxation. Besides, it is an unpatriotic, mean, covert admission that Americans can be outdone by any nation. ality at anything, which I do not feel dis. posed to admit, for I believe that with our wonderful resuurces, our intelligence, science and skill, we can, if we try, write excelsior upon anything the product of any effort we may design or make in every line of human endeavor.

The manufacture of handkerchief ex. tracts and articles of a like character can easily be done by the average druggist with very few applian: 4 s, and at a great saving. Samples of iese goods, with cost of production, are irere submitted.

Catering to that constantly increasing class of customers known as homeopathics proves to be one of the most profitable parts of the business to day. A few homeopathic preparations are submitted with cost of production.

Many little specialties, such as caustic pencils and vaccine shields, can be manufactured at a gieat saving. I submit s.mples and cost of both. During last year, owing to the epidemic of smallpox In our inmediate section and its conse. quently caused public. action and the general scare, large quantities of the shields were disposed of.

Putting up bird seed, bird food and like preparations is easily done at a large saving. For a long time I was shortsighted enough to pay freight on bird saud and oird gravel, fruighting all the way from the east at a cost of double their first price, as much as the whole cost of manufacture at home. These materials I discovered in the "branch," while my boys were catching "horny heads" or running after sweet-slirubs and butterflies.

In endeavoring to carry out the suggestion of Mr. Whitney I have endeavored to submit some practical ideas, emphasizing the fact that money can be saved and made by manufacturmg a line of original preparations, and that it does not require extensive apparatus nor large mestment of capital in raw material. In such preparations as plasters, lozenges and pills, we can avail ourselves of the aid of the manufacturer.

## Important Postal Changes.

The following changes have been made in the postal regulations in force between Canada and other countries of the Universal Postal Union, as a result of the Postal Union Convention at Washington in June, 1897, and wheh came into effect on the ist instant :
(1) Engravings or advertisements may be printed on the front or address side of post-cards, whether official or private, provided they do not interfere with a perfectly distinct and sufficient address. Post-cards may also be addressed by means of a small adhesive label, and the sender may, if he wishes, write, print, or stamp his name and address on the front.
(2) Articles of glass, liquid, oils, fatty substances, dry powders, whether coloring or not, and live bees, are admitted as samples, provided they are put up in such a way as to prevent the possibility of injury to the mails, or to persons handling the same. Glass should be packed solidly in boxes not liable to braak. Liquids, oils, and substances easily liquefiable must be enclosed in glass bottles, hermetically closed, and each boute must be placed inside a wooden box fllled with sawdust, cotion, or spongy material, sufficient to absorb the liquid in case the botlle should be broken. The wooden box must again be enclosed in a case of metal or woud, with a screw top, or else in one of strong and thick leather. If, however, the bottles are enclosed in perforated blocks not less than one-tenth of an inch thick in the thinnest part, and furnished with a sufficiency of absorbing material, it is not necessary that a second case should be used. Fatty substances, ointments, soft soaps, resins, etc., must be first enclosed in suitable inner cover (box, linen, or parchment bag), atd then be placed in a second box of wood, metal, ot strong and thick leather. Dry powders must be placed in cardboard boxes enclosed in a linen or parcimment bag. Live bees must be enclosed in boxes which admit of examination, iut prevent all danger.
(3) Specimens of natural history, such as dried or preserved ammals or plants, geological specimens, etc., which are not sent for commercial purposes, are admutted to sample post.
(4) Facsimile copies of manussript or typewriting may be posted, addressed to

## The Indian and Colonial Addendum.

We herewith give the report of the Pharmacopocia Committec, who were authorized by the General Medical Council to invite suggestions, ctc., for an Addendum to the British Pharmacopoia, 1898, which would be applicable to the requirements of India and the Colontes.
"The respective Indian and Colonial authorities are now invited :
(1) To criticize and amend the descriptions here given of the various drugs, in order that such descriptions may apply to satisfactory commercial specimens.
(z) To supply a few complete descrip. tions asked for, in the following pages, in certain cases in which the Pharmacopoia Committee of the Medical Council have been unable to obtain such descriptions.
(3) To express an opinion 35 to the suitability of the preparations proposed, and to state the doses of the preparations.
(4) To make suggestions respecting such additional drugs and preparations as may be deemed desirable by the Indian and Colonial authorities, in order that the Pharmacoperia with the completed Addendum may meet the requirements of the various Colonies and Dependencies.

It is requested that all suggestions and criticisms should be sent in as soon as possible, and in any case within three months of the receipt of this report. In case of doubt reference may be made to the editor of the Indian and Colonial Addendum, Dr. Atticid, letters being addressed to him at the office of the Medical Council, 299 Oxford street, London, England.

The aim of the Medical Councll is 10 produce, sooner or later, a Pharmacopocia which shall be equally useful in every part of the British Empire."

## HONG KONG.

Agropyrume - Couch Grass.-The rhizome of agropyrum repens, Deauaios (triticum repens, Linn.) [Berg and Schmidt, Off. Pflans. plate 139.] Recom mended by the Hong Kong authorities. Preparation.

Decoctum Agropyri - Decoction of Couch Grass.-
biterial. metric.
Couch grase, cut small..I ounce. 50 grammes. Distilled waier........ . A sufficient quantity.

Boil the Couch grass with trenty-four
fluid ounces (or twelve hundred cubte centimetres) of distilled water in a suit. able vessel for ten minutes, strain. Pour enough distilled water over the contents of the strainer to make one pint (ot one thousatad cubic centimetres) of the straned decoction. Recommended by the Hong Kong allhorities.

Belee Fructus and Extractum Bel.e Liquinum.

Darur.e Fol.a.-Datura leaves.
Extractum Glycyrrhizæ Spiritu-osum-Spirituous Extract of Lit Quorice. - Mix ten ounces (or 500 grammes) of extract of liquorice with sufficient distilled water to form a liquid; add five fluid ounces (or two hundred and fifty cubic centinetres) of alcohol ( 90 per cent.) ; then add sufficient distilled water to produce a well-mixed bulk of twenty fluid ounces (or one thousand cubic centimetres) ; filter if necessary. [This mode of preparing a "Liquid Extract of Liquorice" is desired for local convenience in Hong Kong.]

## INDIA.

Acacia Arabicæ Cortex.-[This bark is suggested as a substitute for quercus cortex. As the aak bark is no longer official, does the Indian Government Committee still desire official recognition for the bark of acacia ara bica ?]

Acacle Gummi.--The exudation from a cacia catechu, Willd., acacia leucophloca. Willd., and Etronia elephantum, Corr., suggested by the Indian Government Committee to take the place of official gum acacia, vary greatl-' color, and differ somewhat in ir reactions. Hence it seems desirable to limit the official recognition to one common Indian gum ; for preparations made with different gums would differ from one another, and from those mad, with gum acacia. Might official recognition be confined to the gum derived from anogeissus latifolia, which can be obrained of a paie color? It gives a good mucil age, and affords reactions similar to those of the official acacia gummi. The gum might be made official under the name of gummi : ndicum (q.v.).

Acalypha - Acalypha.- The juice of acalyitha indica is recommended by the Indian Government Committee as an equivalent of seneza. Information is
desiaed as tu whether the fresh juice or a preserved juce shoukd be supphed. A description of the herb from which the juice is obtanned is also desired.]

Acidum Aceticum-Aceric Arab. - [Reference to the British Phama copoera of iSyS will show that nothog prevents this acd being prepared by mix. ing one pant by weight of glacial acette acid and two parts by weight of distulled water ; the mode of preparation desired by the Indian Government Commutte.]

Andrographis - Axdrographis. The dried plant, Andrographis panculat:, Nees | Bentl. alld Trim. Med. Il plate 197] [Andrographis has bew proposed by the Indian Govermment Committe for use in ludna as a cheap equevalent of Himalayan Chiretta.]

Preparations. - Infusum andrographa dis. (Formula as infusum chirate, 1898 ) Liquor andrographidis concentratus. (Formula as hquor chirate concentratus 1898.) Tincture andrographidis. (liormula as tunctura churatie, 1898.)

Aristolochia-Aristolocma --The stem and root of aristolochiandica, Limu. [Wight, Jcones, plate 1858.] |Aristo lochia indica is proposed by the Indan Government Committce for use in India mstead ot aristolochia serpentaria.]

Prefarations.-Infusum anstolochic. (Formula as infusum serpentanie, 898. ) Liquor arstolochia concentratus. (Formula as liquor serpentarie concentratus. 1898.) Tinctura aristolochic. (Fiormula as unctura serpentarix, 189 S .)

Aurantii Cortex Indicus-Indmas Oravery Peei.

Belax Fructus-Baei. Frutr. .. The dined half npe frat of acie marmelos, Carria [Jentl and Jrim. Med. Pl., vol. i., plate 55] Prefuration.

Extractum Bela Liquidum -. L.loun Extract of Babi.. .

## imptekat. ytrekir.

Bael frust .... 20 ounees 1,000 grammes Distilled water. 15 pints 15 litres
Alcohol ( 90 per cent) ....is suffictent iduantity.
Macerate the bat for tweive hours in one-third of the distilled water, puur off the clear liquor, repeat the maceration 2 second and third tume for one hour in the remaming two ihirds of the distilled water, press the mare, and filter the mixed liquors thruugh finnel. Evaporate to fifteen flud vunces (ot seven hundred and fifty cubic centimetres), and, when cold, add sufficient of the alcohol to produce twenty Ruid ounces (or one thousand cubic centimetres) of the liquid extract. Dose-I to 2 fiuid drachms
[For use in India. from the British Pharmacopocia of $\mathrm{SS}_{5}$, but with the proportion of atcohol increased as desired by the Hong Kong authorities. $]$

Berberis - Benatski. --The stem of Berberis aristata, DC. [Bentl. and Trim. Med. PI. plate 16 .
[Recommended by the Indian Government Commutee as a berberis indigenous to Insia.]

Preporations-Litquid berberidis con centratus. (Fommula as liquor chirate concentratus, 1898 ) Tinctura berberis. (Formula as tunctura hydrastis, 1898 .)

Betel-Betel.-The leaves of piper betel, L. [ Hight, Icones, plate 2926.]

Butex Gummi-Butea Gum.-An exudation from the stem of butea fiondosa, Roxb. (Sentl and Trim. Med. Pl. plate 79].

Preparations. - Pulvis buteie gumm compositus. (Formula as pulvis kino compositus, i898.) Tinctura butere gumni. (Formula as linctura kino, 1898.)

Buteæ Semina - Butea Seeds The seeds of butea frondusa, Roxb. (Butea monosperma, Taub.) [Bentl. and Trim. Med. Pl. plate 70.] Preparation.

Infusum Buter - Infusion or Butea.
 Dis. water(boiling) i pint icoo cubic centime. Infuse in a covered vessel for fifteen minutes; strain.

Cambogla indica, Indian Gamboge.[The Indian Government Committee have suggested that the gamboge of garcinia morella night be used in India instead of the official gamboge of garcinia hanburii.]

Catechu Nigrum-Biack Catechu* -An extract prepared from the wood 0 . acacia catechu, Hilld. [Bentl. and Trim Med. Pl., plate 95.]

Preparations.-Pulvis catechu nigri compositum. (Formula as pulvis catechu compositus, 1898.) Tincture catechu nigri. (Eormula as tinctura catechu 1898.) Trochiscus catechn nigrı. (For, mula as trochiscus catechu, 1898.)
Cinnamomi Lignum - Cinnamon Woon.

Cissampelos - Cissampelos.-The root of cissampelos pareim, Linn. [Bentl. and Trim. Mfad. Pl., plate 15. ]

Preparation.-Extractum cissampelos liquidum. (Formula as extractum pareira liquidum, 1808 .)

Coscinium - Coscinium. - The stem of cosciniumfenestratum, Colebr: [Hooker's

Botanical Magazine, plate 6458, contrib. iii. 22, phate 28:]

Prefarations.-Infusum coscinii. (For mula as infusum calumbe, 189 S , using boiling water.) Liquor coscinii concen tratus. (Formula as liquor calumbe concentratus, 189 S .) Tinctura coscinii. (Formula as tinctura calumber, 1898.)

Crinum-Crinum.-The bulb of crinum asiaticum, var. toxicarium, Her. bert [Jight, Icones, plate 2021].

Preparations.-Pilula ipecacuanhe et crini. (Formula as pilula ipecacuanhe et scille, 1898. .) Oxymel crini. (Formula as oxjmiel scille, 1898.) Pilula crini comlosito. (Formula as pilula scille composita, 1898.) Syrupus crini. (For mula as syrupus scille, 1898.) Tinctura crini. (Formula as tinctura scille, 1898 ) Acetum crini. (Formula as acetum scilla, 1898.$)$

Daturæ Folia-Datura Leaves The leaves of datura fastuoso, Linn., var. alba Nees [Wight, Icones, plate 1396], and datura metel, Linn. [Bot. Mfak., plate 1440.]

Preparation.-Tinctura dature. (Formula as tinctura stramonii, 1898 .)

Daturæ Semina-Datura Seeds.The seeds of datura fastuosa, Linn, var. alba Nees (Datura alba, Nees) [Wight, Scones, plate I 396].

Prcparation. - Tincture dature. For mula as tinctura stramonii, 1898.)

Embelia-Embelia.-The fruit of embelia ribes, Burm. [Burm. Flor. Indic. plate 23 ].

Exacum - Exacum. - The died plant of exacum bicolor, Roxb. [Wight, Scones, vol. iv. plate ${ }^{3} 2 \mathrm{r}$. 1

Gossypii Radicis Cortex-Comton Root BARK.-The root bark of gossjpium herbaceum, Limn. [Berg. unai Schmidt, Off. Pfla:z., plate :06.]

Gummi Indicum-Indian Gum. A gummy exudation from anogeissus latifolia, W/all. Preparation.

Mucilago Gummi Indici-Mucu. age of Indian Gum.-(Formula as that of mucilago acacie, British Pharmaco. poia, 1898 , using twice the quantity of water.) Half the quantity of Indian gum may be used in other preparations, in India, instead of acariz gummi.

Ispaghula-Ispaghula. - The seeds of plantago ovata, Forsk $\{$ (plantago ispaghula, Roxb.) [Bentl. and Trim. Med. Pl. plate =11.]

Jasminum - Jasmine - Sy nonym-Mogra.-The flowers of jasminum sam. bac, Att.

Mudar-Mudar.-The rool bark of calotropis procera, R. Brown (Calotropis Hamilionii, Wight) [Bentl. and Trim. Mcd. Pl. plate 176], and of calotropis figantea, R. Broten (asclepias gigantea, Hilld ] [ Wight, Illustr., plate 155].

Myläbris - Mylabris.-The dried be etle mylabris phalerata, Pallas [Brandl und Rate, Med. Zool., vol. ii. tab. xviii. fig. 18.]

Preparations.-Unguentum mylabridis. (Formula as unguentum cantharidis, 1898.) Emplastrum mylabridis. (Formula as emplastrum cantharidis, 1898.) Tinctura mylabridis. (Formula as tinctura cantharidis, 100 g .) Acetum mylabridis. (Formula as acetum cantharidis, 3898 .) This beetle might also replace cantharides in the preparation of liquor epispasticus and emplastrum calefaciens, in India.

Myrobalanum-Myrobalans.-The immature fruits of terminalia chebula, Retz [Roxb. Coroman Pl. plate, 197].
Preparations. - Unguentum myrobalani. Formula as unguentum Galla, 1898.) Unguentum myrobalani cum opio. (Formula as unguentum galle cum opio, 189S.)

Oleom Ajowan-Ajowan Oil.-The oil distilled from the fruit of carum coplicum, Benth. and Hook. [Bentl. and Trim. Med. P\%. plate, 120].

Oleum Arachidis-Earth nut O:l. -The oil expressed from the seeds of Arachis hypogaa, Linn. [Bentl. and Trim. Mred. Pl. plate 75].

Oleum Graminis Citrati-Oı or Lemon Grass. Syhony'm.-Indian Oil of Jerbena. - The oil distilled from Andropogon citratus, D. C. [Wallich, Plant. Asiat. Bar. plate 28o].

Oleum Sesami-Sesame Oil.-The oil expressed from the seeds of Sesainum indicum, D C. [Bentl. and Trim. Med. Pl. plate 198].

Samadera-Samadera.-The wood and bark of Samadera indica, Gartn. [Wight, Icones, plate 68].

Sappan-Sappan. - Tlie heartwood of Cossalpinia Sappan, Linn. [Roxburgi, Coroman. Pl. i. 17, plate 16]

Preparation. - Decortim sappan. (Formula as. decoctum hematoxyli, 1898.)

Swertia - Swfrtia. - The dried plants of swert a affinis, Clarke [ Wight, Jcones, plate r33r], and swertia corym. bosa, Wight [Wisht, Iconts, plate 1329].

Thus Indicum-Indian Frankisgense - The semi-solid oleo-resin of pinus. longifolia, Roxi. [Rosle's Illustr. plate 857 .

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Writor of Advertialag tor Druggistn. Whllametown, Mass., U.S.A.


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## To thc Drise Tridic <br> NOFBRÄU

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Admirably adapted to the wants of
ladies: before and after continement.
"Iijghly nutritious, and itsuse will be
found vers *a isfactory in the reating of strone, bealiby children.
"Ahead of porteror strong ale thethet
inpprted or domestic.
" I:ncoraed by the medical motewion fection.

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Lager Brewers, TORONTO.

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## "Ghateau Pelee" Medoc.

Cases 12 Qts., S3.7io. Cases 24 Pts.. S4.76.
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## ALCOHOL

Pure Spirits
Rye and NKalt Whiskies
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## Drucgists

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## Letter:

The following telter, packed from anomg hun dreds recened by us weekly lrom all parts of Canada, will explan Itr-lf:

## he F. E. Kann Co. 0 <br> Tatonto.


 ne by return mail five pochaper of jour llerhal Remedy, All Widg Itred here in Uliawa to get ithom the
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We are creating a demand for unt remedies. D.) jou beep them in stock? All jobbers can supply you with our All-WA.l.U. I'rice $\$ 1$. Su per dozen. Wrate us and we will send juu Booklets and fice Samples for distatiation.

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The F. E. Karn Go.,
izS Wealington st., TORONT(

## Diseases of the Stomach. COCAINE, PEPSINE, NARCEINE

The ANTMGSTKAIGIOUR: WINCRIL:R, is the most effectave remeity kuown to medical scence for Diseases of the Stumach, Cramps, Indugestoun, Drspepsia, Gastralgia, Vomitiog alter meals, and during I'regnancy-
2)OSE: One of two sablespronfuls fifteen minutea before meals, of when symptoms appear

## Winckler Antigastralgic Pills

 COCAINE, PEPSINE, NARCEINESame ditection as for the WINCKI.EK ANTI GASTRALGIOUE:
DOSE. One or two pills fitteen minutes before mentb. or when sympums appear. This is specially reconment. ed to the people who can't stand the veparations lighty alcoholized.
WINCKI,ER, Iharmacist, Montrouil, Selno. MONTREAL M. DECARY.
lukunid The Drugalsts Corporation of Ca nada. Limitod

## STIMULATING and Rerreshing LIQUEUR HOR.

KOLA, COCA and LIME GLYCEROPHOSPHitE
A Stlmulating Tonic It Strengthens tho Entre System.

Perfect specific firs .Dlbuminana, Nervous Irritability, Phosphatura, Neuralgia, Consump tion, General Delulaty, Exhaustions.
WICCKLER, Pharmacist, Hontreull, Noar Paris montreal. decary.

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CWOREJOW2

The Canadian Druggist, 63 Yonge St., Toronto

Tinospora-Tinospora.-The stem of tinospora cordifolia, Mficrs (Cocculus cordifolius, DC.). [Benth. and Trim. Med. Pl. plate 12].

Preparations. - Infusum tinospore. (Formula as infusum calumber, 1898.) Liquor tinospone concentratus. (Formula as liquor calumbe concentratus, 1898 .) Tinctura tinospore. (Formula as tinctura calumber, 1898.)

Toddalia - Todmalia. - The root bark of toddalia aculeata, Pers. [Bentl. and Trim. Mid. Pl. plate 47].

Prepar.ations. - Infusum toddaliae. (Formula as infusum cusparixe, 1898.) Liquor toddalixe concentratus. (Formula as liquor cusparix concentratus, IS98.)

Tylophore Folia - Tylophora Leaves.-The leaves of tylophora asthmatica, Wight et Arnott [Benth. and Trun. Med. Pl. plate 177].

Valerianæ Rhizoma IndicumIndian Valerian.

## Queensland.

Alstonia-Alstonia.-The bark of alstonia constricta, F. v. M.
Preparation. Tincture Alstonix. (Formula as tinctura calumbe, 1898. )
Beilschmiedia - Benschmieda.The bark of beilschmiedia oblusifolia, Benth. and Hook. (nesodaphne obtusifolia. Benth) Preparation.
Tinctura Beilsrhimediz-- Tincture of Beilschimedia.

MMPRRIAI, METRIC
Beilschimedia, in No. $4^{4}$ powder 2 ou. 100 gm . Alcohol ( 90 per cent.) A sufficient quantity.
Moisten the powder with one fluid ounce (or fifty cubic centimetres) of the alcohol, and complete the percolation process. The resulting tincture should measure one pint (or one thousand cubic centimetres).
Duboisia and Duboisine.
Euphorbia pilulifera.

## VICTORIA.

Acacix Cortex-Acacia Bark-[A description is wanted -?:ich- will satisfactorily cover commercial samples of the barks of Acacia mollissima, Willd, and Acacia decurrens, willd. Oak bark, which the Acacia bark seems to represent, does nol appear in the British Pharmacopeia of 1898 . Is it desirable now to make the Acacia bark official ?]
Aconitum Napellus - Aconite Roor.-[Information is required as to whether the aconite root grown in Victora corresponds exactly to the aconite root described in the Pharmacopocia,

Should it correspond exachly, it will only be necessary to indicate that victoria aconite root is officially recognized for use in the Australasian colonies. Should it not correspond, the Victorian authoriies are requested to furnish a description.]

Duboisia-ruborsia.-The leaves of duboisia myoporoides, $R$ R.Br. [
Eucalyptl Gummi - Bucaluprus Gum.-[The Victorian authorities recommend that official cucalyptus gum be limited to the product of eucalyptus rostrata, and suggest a suppositoria cucalypti rostrate, a syrupus eucalypti rostratie, a tinctura cucalypti rostrat cand a trochis. chus eucalypti rostrate.]

Grindelia-(innmblan - The dricd leaves and flowering tops of Grindelia squarrosa, Dunat, and Grindelia robusta, Nuttall [

Grindelia Robusta.-[The Victorian authorttes suggest the official recugntion of this drug and its prepaations, but do not suppurt their recommendation by any data.]

Kino Eucalypti - Eucatiptus Kivo.-The varieties of Eucalypus Gum, or so.called "Botany Bay Kino," which have the characters and respond to the tests of the official (Easi Indian, Malabar, or Madras) Kino may be used in the Australasian parts of the Empire.

## Pharmacy in England.

A Mild Winter and Xinas Displays-Indian and Culonial Addendum to B. P. - III-considered Resolutions - Poison Storage RegulationsAlpha and Beta-Eucaine-Liquid Mydrogen for High VacuaWindfall for the British Institute of Preventive fledicine.

(By our London Correspondent.)

We have had no winter to speak of, so far, and the pharmacist's stock of cough mixture and other seasonable articles is distressingly large This, no doubu, has also prevented much of a display for Xmas in chemists' windows, and little or no difference can be seen in the majority. A few have made effective use of timehonored cotton wool, besprinkled with "frosting," on which rest bottles of perfume or cakes of soap. But an elaborate display is not to be found, and even in the west end the only alteration to be noticed is a little more show in colors and a geneal brighter aspect, by means of red covers to hot water botlles in the back ground, and handsome sprinklers in the middle-distance with innumerable perfumes in front. As I have recorded in these columns, the tendency in the matter of perfumes is more toward novel bottles and unique devices in stoppers than to new perfumes. For the full display of these pretty stoppers, no covering leather is used, but ribbon is twisted ruund the stopper and sometimes across and over it and tied in a bow. There is a tendency to color perfumes, and very pretty effects are obtained if electric light or even the Welsbach incandescent plays on them. For this purpose a few drops of alcoholic solution of eosin are used to obtain a pink color, and gentian violet for a pale mauve, green generally being
obtained by the addition of liquid chlorophyll. Care should be taken in the use of these colors, as I heard recently of a chemist who introduced a new perfume and ruined most of his customer's handkerchiefs, as the color turned brown when washed. The most enterprising $m$ stance 1 have heard of this Xmas was that of a chemist in a large provincial town, who for the past fortnight has had a fresh supply of anemones sent daily from the Riviera, with which he has decked his shop and window. His paticular perfune, anemune bouquet, is displayed in large swan necked carboys in the window and in every conceivable shape and size, down to the a-cent phial with cork covered with tin foil, which is really his style of sample. A judicious notice in the local papers and a handful of the fresh flowers to good customers have proved most efficient draws.
The Indian and Colonial Addendum has seen the light in a provisional form as it has been published in a draft stage and copies sent to all Indian and Colon. ial authorities interested in the matter This is done in order that they may (1) criticize and amend the descriptions given of the various drugs; ( 2 ) supply com plete descruptions; (3) express opinions as to the suitabie ty of the preparations proposed, with cosses, (4) make sugges tions to add drugs and preparations tha
are desirable. 'The suggestions and criticisms should be sent in within three months. It may be stated that mere substitutes for official drugs are not required, but, rather, to recognize local drugs for their own value. 'Thus, in the case of alstonia, the bark of which was recommended for official recognition by the Medical Society of Queensland, and the preparation of extract, pill, and tincture by the Queensland Pharmacy Board, a full list of characters is detailed and a formula for tincture on the basis of tincture of calumba, 1898 , but the formule for other preparations are wanting.

It may be that the Queensland Phar. macy Board and medical men have very good evidence of the value of alstonia, but it must be confessed that in England it has been tried without any conspicuous succese, and I am informed by wholesale druggists who export largely to Queensland that the demand for tincture, etc. is very limited. It is not, perhaps, safe to generalize, but too often these matters are settled in the name of a corporation or body without consultation with the mass of members. An instance in point was the recommendation of a cholera mixture by the Royal College of Physicians, London, at the suggestion of the Local Government Board, when cholera was feared about five years ago. Among the ingredients in this precious mixture, which was received with scorn and even derision by medical men, was tincture of coto. It may, of course, be a valuable remedy, but hatdly a chemist's pharmacy or the dispensary of a medical man throughout the country had this preparation on the shelf. It turned out, afterwards, that the prescription was a fad of one of the leading physicians of the day, and only a West End chemist can realize what fads these leading physicians have and to what length this carry them.

Another instance of formidable resolutions passed in a perfunctory and inade. quate manner by bodies that are representative only in name was related to me by a wholesaler the other day. In this case the London Chamber of Commerce was the sinner. The subject for discussion was the suggestion made six months ago by the Cape Government, that all patent or proprictary medicines should cb compelled, under penalty, to have their composition stated on the label or wrapper. First of all this prospective piece of legislation had, in consequence of the general elections at the Cape, been
abandoned by the Government, and, as the election results gave very evenlybalanced parties, it was incomprehensible that such a revolutionary and debatable bill would be re-introduced in the present state of politics. In spite of this, the Chamber of Commerce evidently thought it ought to move in the matter. The meeting was duly called of the particular section, and less than a dozen individuals were present. The chairman, who had no particular knowledge of the subject or sympathy with manufacturers, briefly commented on the object of the bill in a manner that suggested he saw no harm in it. Then a young member arose and vigorously attacked the bill in the sacred name offree trade. He was promptly supporied, and, as the other side had nothing to say, in ten minutes a resolution was adopted and carried unanimously. Part of the joke comes in when it was ascertained that the resolution was identical with one adopted by the proprictors of patent medicines and patent medicine houses six months before.

Next month a similar farce is to be played at the Pharmaceutical Society, when regulations for the proper storage of poisons are to be discussed. It is safe to prophesy that certain regulations will be adopted, wise or otherwise, and their adoption recommended to the trade. In the first place the society does not repre. sent the trade, only about one-third of it, although it will be admitted the leading members of the trade belong to the socicty. Then the voluntary obligation is hardly worth the paper it is printed upon, and there are no known means of enforcing them.

Chemists should note that orthoform has given place to new orthoform, which is much cheaper and just as effective. Similarly, beta-eucaine has replaced cucaine in many minor operations, and the manufacturers differentiate them as follows: Alpha-eucaine should be used in rhinology, laryngology, and otology, and beta-cucaine in ophthalmology, dentistry, and genito-urinary operations.

Liquid air is rapidly being brought into the field of practical chemistry, that is to say, a commercial article will soon be found, with liquid $\mathrm{Co}_{5}$, in every well appointed laboratory. A use for liquid hydrogen has already been found by Professor Dewar, only it is feared that expense may prove a barrier. It can be used as a condensing agent, producing high vacua, as a tube containing air when
one end is immersed. in liquid hydrogen quickly freezes, the air condensing as a solid. The vacuum thus produced is so high that electric discharge will hardly pass, and a similar high vacuum can only be obtained by hours of pumping.

In a former letter I referred to the British Institute of Preventive Medicine, which was inaugurated by the Prince of Wales some three or fuur years ago. The President is Lord L.ster, and the Hon. orary Secretary Sir Henry Roscoe. An announcement has just appeared that the institute, which is avowedly on the lines of the Institut Pasteur, Paris, would change its name to a State College of Health. Now a more interesting communication from the officers appears. Through the munificence of Lord Iveagh, of Guinness' Stout fame, the institute will benenit to the extent of $\$ 1,000,000$, and this amount is to be divided into ( 1 ) ex. tending and improving the premises and laboratories; (2) increasing the staff and therr salaries; (3) to provide exhibitions. scholarships, and other attractions for medical and biological students to undertake research work at the institute. Lord Iveagh has stipulated for a complete change in the council, so that a certain number will be elected by him, the Government and Royal Society selecting the remainder. It is hoped that at last we may have a college in some degree fit to represent the importance of the subject and our city.

Dose Table of the B.P., 1898.
The Dose Table which appeared in our issue last month seems to have been " just what was wanted," if we are to judge by the number of enquaries received from all parts of Canada for ex ra copies of The Canadian Druggist containing the Table.

As we were unable to supply the demand we have decided to issuc a limited number printed on light cardboard, suitable for tacking on the wall, and which will be sent by mail on receipt of ten cents for a single copy. Collcges or clubs of subscribers can secure a reduction by stating the number desired. As the demand is large, not only from students in pharmacy and from druggists in business, but also from the various medical colleges, an early application should be made, as the circulation will be limited. Several typographical errors which appeared in the table have been corrected, and as at present given may be zelied upon as correct. Address,

The encanadiat Druggist,
'Ioronto, Can.
lostal Unton countries, at the pronted matter rate of one cent per two ounces, provided not less than twenty perfectly identical copies are handed in at the post office (not simply dropped into a receiver) at one time.
(5) Articles sent at the printed matter rate may bear certain words in writing, as follows: Any printed matter-the name, business and residence of sender. Visiting cards-Title and address of sender, and congratulations, thanks, etc., not exceeding five words. Printers' proofs-'The neces sary corrections, and the manuscript from which printed. Printed matter, other than proof-Corrections of errors, eras ures, and underscoring of certain words. Price lists, circulars, etc.-Insertion or correction of figures. Notices respecting visits of commercial travellers-Name of traveller, and date and place of visit. Notices respecting sailing of vesselsDates of sailing. Cards of invitation and notices of meeting-Names of person invited, date, place, and object of meeting. Books, papers, photographs. Christmas cards-Dedication to person for whom intended. Cuttings from journals -Title, date, and number of journal from which they are taken.
(6) Commercial papers, samples, and printed matter may be enclosed in one package up to the aggregate weight of four pounds six ounces provided that the weight of each class of matter does not exceed that which might be allowed if it were despatched separately. It is further provided that, if a package contains commercial papers, there must be a minimum prepayment of five cents, and if it contains samples, without commercial papers, of two cents.
(i) The sender of a letter in one country, or the postmaster of the office at which the letter was mailed, may request a postmaster in another country, to whose office the letter was directed, to change the post-office address of the letter, and it will then be the duty of the postmaster receiving such a request to change the post-office address accordingly and reforward the letter. No application, however, for a change in the name of the person to whom the letter is addressed can be acted on by a postmaster without special instructions from the Post-office De partment of his own country.
(8) Letters or other articles mailed un a vessel at sea may be prepaid by means of postage stamps of the country whose flag the ship carrie, but letters mailed on a vessel in port must be prepaid by
stamps of the country to whach the put belongs.
(9) Postage stamps issued in any comb try for a special and particular purpose of temporary validity only camut be used for the prepayment of international cor respondence.

## The British and Colonial Druggist's Diary for 1899.

Amongst the leading features of this work are a list of new remedies introduced during 1898 , tables of metrical equivalents, several pages of photographic formule, and an illustrated chapter on "Electucity as a Hobby." The dary proper, interleaved, is a very valuable and suggestive aid for the pharmacist, who too frequenty neglects his daily memoranda of events and happenings which in the future might be very useful for reference. The diary is a very complete one, an ornament to the pharmacist's desk, and, judging by the advertising patronage, a profitable one for the publishers. The British and Colonial Iruggist, +4 Bishopgate Without, London.

## Tho C. \& D. Diary.

This valuable diary for 1899 has come 10 hand, and is not one whit behnd former years, eulier in appearance or valuable contents, not to speak of the diary proper, which is so useful to all its fortunate possessors.

The adverisung pages are by no means the least prominent portion of the work, comprising over 400 pages. The dary is given free to all annual subscribers to the Chemist and Drugnist, London, E.C., England.

A Paraffin Coating to Keep the Hands Aseptic.-After sterilizing the hands in the usual way, they should be washed in seventy per cent. alcohol and a ten per cent. solution of paraffin in xylol poured over then. This gives the hands a than, pliable, but complete coating, winch may be removed without ether.-Americen Drugist.

The action of Cocame.-- The Dental Digest says the anasthetic action of cocaine is materially increased of the l:quid is slightly heated to ninety degrees befure injecting. Ancesthesia sets in sooner, lasts longer, and is more decided. A weaker solution may be employed with less risk of rocanne porsun ing.

## Pharmacoulleal Products

The Pharmaceutical Department of the Farbenfabriken, arm, Firledr. Bayer \& Co., Elberfeld, (iermany, have issued a descriptive corcular, respecting a number of their products, giving doses, mode of admmestration, therapeutic propertles, etc., amongst whech are the following :

Gomatosis (an albumose food productl, prepared from meat and is a first-class restorative (no stimulant like extracts of meat) for weak persons.

Trionar (drethylsuff onmethylethylmethan), a most elticacious hypnotic of prompt action.

Saionilien (acethyl of para amidosalol), a first-class remedy in cases of acute artic ular rheumatism, sciatica, chorea and headaches.

Akistoi (duthymoldnodide), a cicatrisant of the first order, especially with burns.

Tannigen (triacetyl of tamme, an efficactous intestmal astringent.

Sulphonal. Barer (dehtybulfondumethylmethan), a good hypuotic in cases of simple insomnia.

Phenacemne-Bayer (acethyl of paraphenetadin), a most reliable antupyretic.

Europhen (isobutylorthocresoliodide), a perfect substitute for todoform. It is almost odorless and its faint saffronlike smell is by no means unpleasant.

Ionothrmine (formerly called thyrorodne), contains the active principle of the thyroid gland. The onlv preparation contanning a definte amount of the iodine compound.

Lixcerol. (tartrate of di-methyl-piperazine).

Iron Somatose: (ferro-somatose), contains in a form easily soluble the albuminvus substances of meat (allumoses), organically combined with iron with tannic acid (five per cent.).

Mhs Somatose (lacto-somatose) a slightly astrmgem, strengih giving food. contans the albummous matter of the milk, organically combined.

Conosoral. (creosotum carbonas pur iss), excellent results have been obtamed in eases of tuberculosis of the lungs.

Avarfy, (ortho ethoveana monolien os lamido quinoline), most favourable results have been attained in the treat ment of malatia.

Pubhacine Daseh idicthsiencdat minci, puostsoses a great puber of dis solving uric acid.

Prusarbul (a new shles preparation/, a new combination of silver with protein
substances, containing 8.3 per cent. of silver.

Tannopine (formerly "tamoo"), a product of condensation of tannin and hexamethylenctetramin.

Duoras. (carbonate of guaiacyl ether), for phthisical persons.

Heron (di-acetic ester of morphane), an excellent sabstitute for codeine.

Patents of Interest to Pharmacists.

Hannah Allen, Wakefield, R.I., bed. pan, 614526.

Eugene L. Doyen, Paris, Fran:e, forceps, 6r4708.

James M. Flower, assignor of one-half to R. G. Ferguson, Pottsville, Ark., truss, 614612.

Wm. H. Johnson, New Brunswick, N.J., bandages, 614477.

Wm. R. Park, Taunton, and B. T. Walliston, Somerville, assignors to Hancock Inspirator Company, Boston, Mass., injector, 614752.

Alexander S . Ramage, assignor to J . Black, Cleveland, Ohio, ozonizing ap. paratus, 614500.

Gustav F. Richter, New York, N.Y., tonsilotone, 614760.

Edmund E. Cafford, Boston, Mass., invalid-rest, 614766 .

Albert Kaeding, Halberstadt, Germany, apparatus for changing bed-sheets for sick beds, 614870.

Herman Roeber, Kiel, Wis., pessary, 614895.

Philip Schidrowitz and O. Rosenheim, London, assignors to Joseph Turner \& Company, Limited, Quecnsberry, England, piperidyl carbonate of piperidin and making same, 6r4991.

Philip Schidrowitz and O. Rosenheim, London, assignors to Joseph Turner $\mathcal{S}$ Company, Limited, Qucensberry, Eng. land, piperidin salts and making same, 61505 I .

Morgan T. Morgan, Anaconda, Mont., distributor for applying liniment, design, 2973 .

## trade-marks.

Eberhard yon Bodenhausen, Berlin, Germany, albumivates and compounds thercof for certain named purposes, 32174.

Frederick Stearns $\mathbb{E}$ Co., Detroit, Mich., perfumery, 32170.

Hance Bros. \& White, Philadelphia, la., remedies for certain named diseases, 32176.

Kalle \& Co., Biebrich, Germany, cure for consumption, 32177.

Kalle \& Co., Biebrich, Germany, cure for consumption, 32178.

Laboratorres Sauter, Societe Anonyme, Geneva and Charmilles, Switzerland, preparation for sterilang water, 32180.

Edward l.. McClam, Greenfield, Ohio, sweat pads, 32169.

Edward 'T. Moriarty, New York, N.Y., remedies for malarial and kindred fevers, 32179.

Arthur B. Robinson, Liverpool, Eng land, preparation for the cure of tooth. ache, 32175.

Charlotte C. Dover Chicago, III, medicine for cettan named diseases, 3219 I.

Richard Hudnut, New York, N.Y., perfumes, extracts, toilet waters, and sachets, 32188 .
J. B. \& G. W. McFatrich, Chicago, Ill., external ayc remedies, 32189.

Frederick J. Stock, New York, N.Y., cathartic medicines, 32190 .

## IABELS.

Fred. H. Gadshy, Eau Claire, Wis, "Anti.Con" (for a medicine), 6726.
patents granted nov. 8th and 15 Th of interest to pharmacists.
Ernest C Clark, Detroit, Michigan, pill-making machine, 61375 S .

Jerome B. Dillon, assignor to C. Dillon, and J. H. Black, Wicklıffe, Ky., umbilical bandagr, 613761.

White W. M. Hickey, San Francisco, Cal., massage machine, 613859 .

James B. Herron, Chicago, Ill., soda fountain, 613678 .

Leonard Knetz;er, Du Quoin, III, sprayer, 613905.

## ARADE MARKS.

Acker \& Affleck, Washington, D.C., liquid remedy for nervous and head ail ments, 3213 I .

George A. Beahlcr, Palace Valley, W. Va., certain named medicinal remedies, 32135 .

Harry L. Bird, Benton Harbor, Michi. gan, medicines for diseases of the throat and lungs, 32132.
E. C. DeWitt \& Co., Chicago, Ill, dyspepsia cure, 32134 .

Frank C. Fowler, M.,odus, Conn., medical remedies for gout and rheumatism, 32133.

Estate of Charles A. Kish, Chester, Pa., certan named propretary medicines, 32137.

La Societe Chimique des Usines du Rhone, ancicnnement Gilliard P. Monet et Chartier, Lyons, France, chemical substances for use in medicines and pharmacy; 3213 S .

Pharmaceutisches Institut Ludwig Whi helm Gans, Frankfort on the Main, Ger many, dietetic preparations of albumen, 32:45.

Weaver-Markel Chemical Company, Union Bridge, Md.,certain named medical compounds, 32136 .

James J. Coyle, Pomona, Cal., certain named medicinal remedies and preparations, $3^{2166 .}$

Samuel R. Jackson, Hot Springs, Ark., medicaments for the skin, 32167 .

## I.ABELS.

John Dunn, Jr., New Otleans, La., "Dunn's Rheumatic Liniment," for a medicine, 6708.

## pRints.

Boericke \& Tafel, Philadelphia, Pa., " Physiological lhosphates," for a medical compound, 6712.

Boericke \& Tafel, Philadelphia, Pa., "Physiological Earths," for a medicinal compound, 6713.

## A Hop Bitters Case.

In the Superior Court, Montreal, before Mr. Justice Archibald, argument was heard in the case of the Diamr ad Glass Company vs. The Hop Bitters Manufacturing Company and Liebes intervenant. This was a seizure before judgment taken by the plaintiffs, and 420 gross of hop bitters were seized thereunder, in the possession of Lyman, Knox $\&$ Co., of that city, for a debt due the plaintiffs by the Hop Bitters Co., for bottles supplied the latter. After the institution of the action, Louis Liebes, of New York, the intervenant, appeared and claimed possession of the Bitters, which he alleged had been sold to him and were being stored by Lyman, Knox \& Co. as warehouse men for him. The plaintiffs contested the intervention, claiming that Liebes had not acquired a valid title to the goods. After argument by the different counsel, the case was taken en delibere.

Iodoformogene is a compound, or possibly a mixture, of iodoform and albumen clamed to be superior to plam iodoform.

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 Y \&. S Licorice Lozenges. $\because \cdot$ Tar Licorice and Toiu Wafers Purc Penny Stick "Purity" Brand.For sale by all leading Wholesale Druggests in the Jomimon of Canada. If you cannot get the above at your jobbets, please address us as below:

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Soap Dyes COLORS

## Fo ALE BY

 WHOLESALE DRUGGISTSCanadian Depni-
8 Place Royale, Montreal
Arthur P. Tippet \& Co., llanages.

## Wampole's

## BEEF, WINE, AND IRON.

$$
\begin{aligned}
& \text { In Pint Botlles..... .............. } 5500 \text { per doz. } \\
& \text { Winchester ( } 1 / 2 \operatorname{lmp} . \text { Gal.).......... } 200 \text { each. }
\end{aligned}
$$ Imp. Gallon, in 5 gal. lots, and over 350 per gal.

With haudsome lithographed labels. Buyer's name prominently Printed on same, at the following prices:

If Gross lots, and over. . . ..... $\$ 6000$ per gross. (lacked in One-l)ozen Cavec.)

We are a liure Sthers Wine an the manafacture of the atacle. assuring a delicate flavor, and we granantee the quality oo be equal to any in the market.

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

Your early orders and enq̧uiries solicited through Wholesale foblers, or direct from us.

Henry H. Wampole \& Co., Manufacturing Pharmacists, Philadelphia, Pa.<br>Canadian Branch:<br>36 and 38 Lombard Street, TORONTO.

## Outside the Gombine

We Manufacture

## A期 - Milionopoly

## Chimneys <br> and

 BottlesGreen, Amber, and Flint. Every Description.
get our prices.

SIDENHAM GLASS CO., Of Wallacoburg. Limitca.

The Trading Stamp Company.
The Trading Stamp Company, of Montreal, refused to pay the usual transient traders' license at Woodstock, Ont., some days since, and at the police court there the case was decided in favor of the town.

The retail mercants of Galt have also bestirred themselves in regard to this scheme, and at a public meering held in that town on Dec. 19 th steps were taken to organize a Retal Merchants' Protective Association, in order to secure combined effort in thwarting the altempt of any concern such as the Dominion I'rading Stamp Company from getting a focthold. The meeting showed a unanimous desire on the part of the merchants to withhold their support from the company, four merchants who had signed the agreement with the company, and which had been done, of course, with the intention of keeping competitors from joining, also expressing their desire to withdraw. The company's plan of doing business isas follows: They get one merchant in each department of business to go into the scheme -one druggist, one grocer, one jeweller, one hardware merchant, one boot and shoe dealer, etc.-and the company advertises these merchants to the exclusion of all others. These dealers give to every purchaser a coupon which entitles the purchaser to its face value in goods obsain able at a store which the company will open up. The merchant buys these stamps from the company, paying a sood percentage for them. The idea is that the trade of the town will be converged into these respective stores.

In Brantford they are obliged to pay " transient traders" " license, an example which aight well be followed in all municipalnties where theypurpose doing business, and the license, too, should be put at such a figure that the finances of the municipality may gain something should they succeed in getting a foothold.

Competition in business is keen, but it should not become so selfishly aggressive as to support any such scheme for the diversion of trade from one businesshouse to another.

Because a man cannot recover the golden moments wasted it is no reason he should waste others. The more time a man wastes the harder it is for him to succeed.

Prospenty comes to thuse whu wih perseverance pay for it.

## Items of Interest.

Lond I veagh (Edward Cecil Guinness) has presented the Jenner Institute with the sum of $\mathcal{S}: 50,000$ in aid of scientific research in becteriology and other foms of biology. The Jemer Institute includes most of the leaders in medicine and its allied sciences in Great Britain.

It is stated that Dr. Becquerel has announced to the French Academy of Science the discovery of a new chemical substance which has close affinity to barium. Its discoverers, MM. Cunic and Bremona, have named it radium. It is so sensitive to light that it will take photographic impressions.

Mr. Frederick Stearns, of E. Stearns N. Co., Manfg. Chemists, Detroit, Mich., has presented his collection of musical instruments, supposed to be the finest in the world, to the University of Michigan, to be placed in the University museum, where the public may have free access to it at all times.

After completely russifying the University of Dorpat (now named Jurjew) the Russian Governmeni now has interdicted the publication in the German language of the Phaımaceutische Zeisschrift fuer Russiand, founded and made famous by the late Dragendorff. Its name also has been changed, and this publication, hitherto frequently guoted in pharmaceutic literature, is not likely to be much heard from after this.

The steamer China just arrwed from the Orient, carried ihe largest consugnment of opium ever entered at the port of San Francisco. There were 660 cases of the drug, valued at $\$ 500,000$. The total weight of the oprum is 27,000 pounds, and the duty on $i t$ amounted to $\$ 16=, 000$, at six dollars a pound.

A quack doctor in Dusseldorf, Ger many, found guilty of selling nostrums for all kinds of discase and of advertising "cure-alls" and similar impositions, has been sentenced to four jears' imprison ment, to pay a fine of $\$ 710$ and to a sus pension of all bis rigits of citizenship for five jears.

The Montreal (Que.) City Council have decided to place a tax of ten per cent. on departmental stores. The resolution, which was carricd by a large majorny; declares that a special tax two exceeding en per cent. of the annual assessed value
of the entire premises in which departmental stores are maintained and carried on may also be inposed-lor each separate and distinct department, alter the first, that is that the principal branch of the business shall be exempt from the special tax, but all addmonal branches shall pay 10 per cent.

Hundreds of retailers were made happy January ist by receipt of dividend checks from the Stirling Remedy Co., makers of the famous Cascarets and No-To-Bac. Within a litle over two jears, Cascarets has attained the enormous sale of 5,000 , ooo boxes a jear, and at the present rate of increase it will soon have the largest sale of any proprictary medicine in the world.

Under the title of "Kodak, Limited," the Eastman Kodak Cu., LId, have combined the business of their houses in the United States, England, France and Germany. The Company is captalized at $\mathcal{L} 1,600,000$ and the prospectus will be issued in England this month. Mr. George Eastman and Mr. George Dickman will be Managing Directors.

An official notice published in the Montreal Postal Guide this month draws attention to the law whinch forbids the sale of postage stamps by unlicensed persuns. Ihose whu ate in the haint of sell ing them commot a serious breach of the Post-Olfice Act. and are liable to a fine not exceeding $\$ 40$ for each offence. The Post-Ofice authorites are evidently waking up to the fact that cleaned uy stamps find therr way into the market in everincreasing numbers.
"The Ladies" Medical and Pharmaceutical Assuciation, Limited," is the name of a compang which has registered in London, England. The amount of capital is $\mathcal{f} 3.500$ in $\mathcal{E}$ shares, and its object is "to advance the interests of gentewomen who are qualified to act as doctors, dentrsts, and chemists (by exammation), or who are desirous of acting in one of those capacites, to form a preliminary school of pharmacy, to establish a registry or agency of and for gentewomen seeking engagements as general, midwifery, and surgical nurses, to open consuling rooms where women may receve the advice and attention of gentlewomen duly qualified un medicine and dentustiy, and so establish and carry on wie bushiess of pharasaceaticai chemist c. chemist and druggist in London."

## A Practical Talk on Sponges. (Western Druegts:)

The sponge, an a low form of ammal hife, is distributed in fresh salt waters over the tropical and temperate zones of our globe, but reaches its highest development in the warmer waters of the earth. About eignteen spectes of sponge are known, bu: ::x: e: :hree only of these furnish the sponges of commerce. These are found most abundantly off the coasts of Floridn, Cuba and other West Indian Islands, Greece, Turkey, North Africa, Australia, and the East Indian Islands. All of the sponges that enter the commerce of the United States conce from Florida and the West Indies or from the Mediterrancan.
Sponges are obtained from the water by three methods: (1) In waters not exceeding thirty feet in depth, by fishers with a three-pronged hook attached to a long pole who pull up the sponges from the rocks. (a) In waters not exceeding sixty or seventy feet in depth, by divers in regular diving outfits, who cut the sponges from their attachment, collecting them in a bag. (3) In waters exceeding sixty feet, by dredging with small grappling hooks. This is the least satisfactory method, as by it many of the sponges are badly torn. The first method is the principal one used, espectally in American waters. To enable the fisher to see the sponge, he provides inimself with a short cylinder, usually a pail in which the bottom is replaced by a piece of stout glass. 13y placing the pail glass-end downward, a little way into the water, it is possible to see clearly to quite a depth. Having sighted a sponge which appears to be valuable, the fisher with his houk carefull) detaches it from the rock and pulls it up. Most of the fishers are of a veiy poor class, being negroes or indigent whites.

The sponge as taken from the water is composed of a great mass of gelamnous material adhering to the fibrous skeleion and possessing a very disagreeable odor. Its preparation lor the market consists in washing whe: first gathered, to remove the bulk oi the gelatinous material, tien drying in the sun for a period not exceed ing one day, during which time all of the organic matter partially decomposes, and is finally removed by heatiog and further washing; lastly; drying well preparatory ior the inarket. The principal Florida sponge market is Pensacola, while the Mediterancan market is Tricste At
-Yroma:n address by L. M. Lasdecker belere the ChsLago College of Pharmats
these markets the fishers pile up their goods on the wharves and ask for bids on the whole pile. The highest bidder receives the lot, and he then proceeds to sort, trm and bale them.
Sponges are "bleached" to remove the natural dark-gray color of the sponge and more especially the red color of the roots always present in Mediterranean sponges. "Bleaching" is performed, first by soaking the sponge in a strong solution of sodium hyposulfite, washing, and then treating with dilute hydrochloric acid, and finally renoving all the acid by washing. This treatment gives the sponge a nice yellow color, but it also largely destroys the "life," i.e., the elasticity and tie toughness of the sponge, hence unbleached sponges are always preferable to bleached sponges when intended for bathing and cleaning purposes.

The quality of a sponge is determined by its texture and softness, its elasticty and toughness, as well as its size and shape. The texture of a sponge determines its adaptability to a certain use, still, as a rule, sponges of the finest texture bring the highest prices. The elasticity of the sponge is what dealers call the "life" of the sponge, and is best preserved in those sponges which are not bleached. The toughness and durability of a sponge depend on its structure. Those sponges are the most durable that are the most closely woven. As to shape, sponges may be etther enture or "fullform," i.e., nicely rounded, " half-form," or flat on one side, "coupee" or "cut," when sliced, so as to have several flat faces, and "glove" or "rag," when in poor, irregular pieces. Size is a very important factor in determining the price of a sponge. Sizes are graded according to the number the sponges run to the pound.

West Indian sponges are classified according to their geographical source into Florida, Nassau, Cubav, and Bermuda sponges. Each of these classes includes, according to texture, "shecpswool," "velvet," "reef," and. "grass" sponges. The sheepswool sponge is considered the finest bathing sponge, and of this variety the "Rock Island" sheepswool is the most highly prized. Velvet sponges rank next to the sheepswool and are used for the same purgoses, but are not so durable. The "Bermuda yellow" and the "Nassau yellow" are considered the best qualities. The reef sponges are much less expensive than the sheepswool, the
larger sizes being used for scrubbing and cleaning and the smaller sizes for slate sponges. The grass spunges, when bleached, resemble shecpswool in appear ance, but are practically worthless as bath sponges, as they soon fall to pieces. It is these sponges which are sold as great bargains by the department stores. The grass sponges cost only about one-sixth as much as sheepswool of the same size.

Mediterranean sponges are classified into Grcek, Zimoca or Turkey, Mandruca or North African, and the finest of all sponges, the "silk" sponges. The Greek, Zimoca, and Mandruca sponges come, as regarding shape, in full-form, balf form, and coupee, are usually bleach ed, and are used almost entirely for bathing purposes. Silk sponges are classed into "cup," "surgeons'," and "flat." Cup sponges are those with large oval cavity in the top, giving the sponge a cupshaped appearance, and were formerly used by surgeons in administcring anæs. thetics. Surgeons' sponges are the fine, oval, silk sponges, formerly extensively used in surgery, but now almost entirely supplauted by absorbent cotton.
In addition to the uses mentioned above, sponges are now largely employed in many of the arts, thousands of pounds being annually utilized in carriage, furniture and shoe factories, potteries, etc.

Bleached sponges are sold in cases, i.e., a certain number of sponges are packed in a case, so that the buyer knows just how much he is paying per sponge. But here again the nicest sponges are always on the top, so that, if the retailer places his retail price per piece at a fair margin of profit, he will find the best sponges of the case will go all right, but the poorer ones will stay on his hands, and must be sold at a lots. It is, therefore, advisable to ask a higher price for the nicer pieces, and be prepared for a lower price on these poorer ones.

A sponge should never be phaced in very hot water. To do so almost inva. riably destroys its "life," causing it to become flabby. A sponge should be aired frequently and not placed away, damp, into close boxes or cupboards. With this care a good sponge will last for years.

It is the man who pulls when the tide is against him, no: he who only rows when th: tide is in his favor, that anchors in the Harbor of Success.

Profits for you and profits for ourselves.
By liberal advertising we are going to send you many new customers. This means new business for both of us One thing you mas rely upon for 1 'ge, Scott's Emulsion will be a quick seller; it won't stay on the shelf six months at a time until the interest on money invested will equal the prufits.

Quick sales for '99. Let this be the watchword. We will create the demand, we will send you the customers. All we want you to do is to keep on hand a good supply of

## Scott's Emulsion

Then, when a customer comes in and asks for a bottle of SCOTT'S EMULSION, you will be ready for him; and, he will get it; we feel sure of that. Suppose, however, he comes in and asks for a good preparation of cod liver nil, the best you have, but doesn't mention the word "Scott's." What will you do? Help him a little. Say the word for him. You can't make a mistake, he knows of it but he has forgotten the name, and it will please him. There is a quick sale and a fair profit for both of us in that word "Scott's." We need your hearts =o-operation in the business and you need us, too. We are sure you agree with us that it is the best preparation of cod-liver oil on the market. You can never make a loss on it because we will, as we always do, take back any bottle or bottles that may be affected by any cause whatsoever.

Remember, SCOTT'S EMULSION does not thicken in the top of the bottle so it won't pour out and doesn't get watery in the bottom so you have to shake it. It is always and invariably the same Please bear that in mind.

## SCOTT \& BOWNE,

Toronto, Ont., Canada.

## SUUN <br> INSURANCE OFFICE <br> OF LONDON, ENGLAND <br> The uldest priely fire otfice in the world. <br> FTRE <br> ()NLY <br> Labatt's Indian Pale Ale

H. M. BLACKBURN

CANADIAN MANAQER
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AGENTS WANTED IN UNREPRESENTED DISTRICTS

Is an excellemt nutrent tonic. l'hysicians desiring to prescribe will hardly find angthing superior to this. -Health fournal.
"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 IN FROM YOUR MERCMANT
AND SEE THAT YOU GET IT.

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Brewer, LONDON.


DOMINION SHOW CASE CO'Y
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SHOW CASES, VYALE CASES, JEWELERS', CONFECTIONERS'. AND DRUGGISTS' FITTINGS
GRII. WOKK, FANCY CABINET WORK, BRITISH PIATE MIRRORS, BENT AND BEVELLED GLASS


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# Pharmaceutical Specialties.... 

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

THE

## Martin, Boyle \&

## Wynn Co.

Wholesale Druggists, Winnipeg, Man.

[^2]Received Medal and Diploma as Province of Quebec Ex pooition, Montr al, 1 S97.


## Formulary.

naftalan gidusion and naftalan olf.
The following are given as sultable forms of applying naftalan, the recemb introduced dermic resolvent :

## Naftalan Emulsion.

 Naftalan Oil.
 - phatm. J'ost

## BISMUTH HaIR IMCE.

Bismuth sulinitrate.... .. ....gr. 200
Water . . . . ... ........ . . . . Al.ㄴ. $=$
Nitric acid, suficient to diesolve, or ab.ut. . . . . . . . . . . . . . . . . . .gr. 420
Use heat to effect solution. Also
Tartaric acid. ....... .. ....gr. 1 . 0 Sodium bicarbonate.............gr. i6S
Water... .... ........ ......fl.oz. 32
When effervescence of the latter has ceased, mix the cold liquids by pouring the latter into the former with constant stirring. Allow the precipitate to rubside, transter it to a filter or a straincr, and wash with water until free from the sodium nitrate formed.

PENCILS TO WKITE OA GI.ASS.
The British and Colonial Druggist gives the following :

| Black. |  |  |
| :---: | :---: | :---: |
| Puritied tallow ..... ......... . 7 parts. |  |  |
| White wax...... .... . . . . . . . . . 3 parts. Lamp black. . . . . . ... . . ... 2 paris. |  |  |
|  |  |  |
| Mix. |  |  |
| Bituc. |  |  |
| White wax.. . . .... ......... 1 part. |  |  |
| Purified tillsw................ 2 a patts. |  |  |
| I'russian blue | .. | 3 prast |
| Mix. |  |  |
| $W$ bisic. |  |  |
| Purilied tallow.... ..... . ...t part. <br> White wax.... ................. 2 parts. <br> Bremser's white. ........ .... 2 parts. |  |  |
|  |  |  |
|  |  |  |

Mix.

## EGG-yOLK JREPARATIONS

Ludwig Bernegan gives the following iormulas for egg-yolk emulsions, which yield satisfactory preparations:

Castor oil. . . . . . . . . . . . . . . . . . 70 gm.
Esg.yolks . . . . . . . . . . . . . . . . . . 10 gm.
Gilucosc. .

## 

Syrup iron iodide. . . .............. 25 gm.
Egs-yolks ........... . . ... ....... \&
Glucose........ ... ... ..... 10 gm .
(A substitute for cod-her oil.)

## 

Ssuplalciun bjpuphosphite . 25 sm .
ELg.yolks..... .................... . .
Gliccose.................... . 10 gill.
(An excellent lime prepatatwon for children.)

Viscaíturn Kini..

> Eatract kela, dify. ... . ... 30 gm .
> EHCH yolks
> $10{ }^{2}$
> Cognac................................. gom.
(A good deletir and restorative)

> -alpoth. Kiluns.

JRERMRATIONS OF ICEL.AND MOMS.
lceland moss is again growing in favor with the medical profession in the treatment of consumption. 'Two new preparations of this drug are proposed, as folluws:

Tincture of lceland Bloss.

| Iceiand moss | (3) 200 |
| :---: | :---: |
| Ammonium cailonate | C |
| disolute alcohol | i; 1,000 |

Marerate for 2.4 houre, heat to the borl ung potut, strain while hot, fileer when cold.

Infiustion of Fre'the Moss.

| Iceiand muss | G 200 |
| :---: | :---: |
| Ammanium cartwnate | G |
| Boiling water. | C 2, |

Macerate for half an hour, heat 10 beiling, strain, add 700 grains of absolute a'cohol, allow to sette, decart, and add . 300 grans of liconce juice.-Pharm. Zcit.

CRACKING COM, FOR CUTTING GIASS.


Mix in fine powder, mass with water, roll into pencils and dry. Let one of these, when ignited, pass slowly over the glass, and cause a drop of water to fall in the hot parts, when $1 t$ cracks. The crack may be led in any desired direction by means of the turning pencil.

## TAMARIND JASTII.I.ES.

| Fol. senna Conilect. $\qquad$ | brammes |
| :---: | :---: |
| Cosnfect, aurant ........ 9 | $\because$ |
| V'ulp tamaind dep.... $\mathbf{j}^{0}$ | $\cdots$ |
| Cardamon ...... .... 1.75 | " |
| Sicch. all.. .........it6 | - |
| A. soorr, , i, casjuph |  |

The pastilles are covired whith cocon butter and vanilla sugar, and dusted over with pulp. benzoin.-Zeif. des Allyem. Oester Apoth. Ver., Phar. /ournal.

## M.NAT HENHON

T'en parts of sugar are boiled with four parts of water, the latter bemg mixed with the necessary volume of ex ract of malt. The maxture is boiled in an epen fire until a sample dipped meto ice water is brittle. It must not be bolled tuo long, or il acquires a marked blter taste. When ready the mass is poured out on to a marble slab and cut up bits equares. -hit. des didem. Uswer Afoth. Iier. Phar laurnal.

A spon-remover, or cleansmg thad which, it is clame $\%$, is of extraordinary value, consis $s$ of the following ingredients.


A usefui paste is made as folliws Ryt meal, 5 parts, solution of glue in water, q. s., Venice turpentine, 1 part. Mix the ree meal with the Venice turpentine, and then add sufficient quan tuty of the solution of glue to bring it to the proper consistency.

Cosmexotine.
An elegant preparation for softening and preserving the skin :

| Impoline | 13 |  |
| :---: | :---: | :---: |
| Ciljcorne | $1 ;$ | ; |
| Tincture of Bel: ma | 4 | 4 |
| 13 nic scid | 1 | 11 |
| Oltorese. |  | $t$ |

Mix lanoline and filyeeme tugether. and when cooling add the other ingred. ents. To be applied migh and mommg.

## I.foutb ridit.

In a recent German paterat the fullow ing process is described:


Soak and heat on a water bath until l.quid. The salicylate is supposed to prevent the glue from setting

Do not as a merchant tangle yourself up in politics; but vote right, in order that the country be not tangled up by the politicians.

Keenness for busmess cuts a swath in many difficulties.

## Photographic Notes.

## Encouraging Photography.

According to Nature, the railway authorities in Kussia provide in the new service of crains from St . Petersburg to Tomsk, in addition to the usual dining car, a library, with the local newspapers, collected as the journey progresses, and -a dark room for photographers! The Government of the Czar appears determined to carry civilization well into Siberia, and when the railway is com. pleted another run like that from the capital to Tomsk will bring the traveller to the borders of the Yellow Sca, while another southward from Toms: suld touch the frontier of India.

## Developing Snap Shots.

Here is a new method for developing snap shots which seems to be useful and productive of results. Begin, with development as usual and continue as far as is safe without catising a chemical fog. There is now 2 superficial regative, no faint image can be seen ous the back of the plate, but it seems brilliant and shows abundant detail by transmitted light. The Camera Notes says that if the plate were placed in the fixing bath at this stage nearly all the image would be lost. Instead of fixing, however, and without removing from the developer, expose the plate for a few seconds to a white light and continue development until a positive image appears on the back of the plate. Then fix as usual. By this process the usual superficial image is used as a negative, through which a positive is printed in the underlying and unaffected portion of the film, and if the proper times of exposure and development have been given a most pleasing positive, without fog, and showing all the detail developed in the primary negative, would be the reward of the labor. From these positives negatives may be maje either by contact or by enlargement, and they will contain much more detail than could have been secured from the original exposure by the ordinary process.-Spatula.

Tartar emetic is a salt which may possibly be asked for by photographers. It is quite new to photographers, but as a preliminary bath, either before or after
exposure, of a strength of 2 per cent., M. Mercier, of Paris, has found that it will cure an over-exposure of at least 500 times. The plate is merely bathed in the solution for two minutes, dried, and then developed, preferably with a hydroquinone developer of the following composition :

| Sodium sulphite. <br> Sodium carbonate. <br> Polassium brumide |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  | - Phar. Tournal.

Colured matt varnish is at the present time one of those little adjuncts to practical work which is rather in demand. The usual formula with ether and benzole is by no means so satisfactory as the following :
Ether. . . . . . . . . . . . . . . . . . . . . . 10 . C.c.
Sandarac . . . . . . . . . . . . . . . . . . . . 100 g .
Dissolve by agitation, filter, and add-
Toluol.... . .. ............... 375 C.c.

To stain this about 10 g . of powdered asphalt may be added, or else about the same quantity of aurantia or chrysoidine, according to the depth of color required. - Phar. Journal.

Fluid Geintin.-The Photographische Chronik mentions that a German patent has been granted for the preparation of gelatin fluid at ordinary temperature as follows: Chloral hydrate, 250 gm .; gelatin, 400 gm .; water, $1,000 \mathrm{gm}$. After standing fortyeight hours the solution is ready for use, and, if necessary, it may be cleared by decantation. The solution may be used for photographs.-British Journal of Photography.

To Remove Portions of a Nega-tive.-Prepare a solution of cupric chloride of woderate strength, and thicken it with glycerin or gum. Apply to the part with a brush. The image will be rapidly changed into silver chloride, and immersion in the fixing bath quickly removes it.

Enlarging from Film Negatives.Dr. E. Vagel recommends the following procedure for obtaining good enlargements from film negatives that show imperfections in the celluloid. Strip the gelatin film from the support by Lainer's method with an alkaline solution of formalin in the following proportions: Water, 200 c.c.; caustic potash, or caustic
soda, of a solution $1: 3$ i 5 c.c.; formalin, 4 c.c. Alter five to ten minutes' immersion in the above, the negative is trans. ferred without washing to a five per cent. bath of hydrochloric acid. The negative should remain five to ten minutes in the acid bath, and may then be stripped. The stripping will be facilitated if the gelatin film has been cut through near the margin of each of the four sides before immersion in the formalin bath. The stripping should be done in the acid bath by rolling off the gelatin film with the fingers, and this should be done as soon as the film shows signs of leaving the support. Transfer the film to a dish of water, pass a glass plate beneath the film, and lift the two in contact from the bath. Shift the film to the edge of the plate, and turn over a strip about a m.m. in width. This will keep the film in position whilst it is stood up on the opposite edge to dry. With ordinary care this method of stripping is almost free from cianger to the film. - British Journal of Photography.

Intensification Without Mercury. - Make two solutions:

$$
\text { No. } 1 .
$$



Dissolve the gallic acid in warm water, add the glycerine, allow to cool and filter. When the negative is ready to be intensified, pour sufficient of No. 2 into a measure, and add four drops of solution No. 1 fur each dram of No. 2 used. Flow this mixture over the negative, holding the latter in the hand, then waih well and fix for a minute or two.

Amidol. Developer for Bromide Parek. - The following formula can be highly recommended:

| Amidol. | 102. |
| :---: | :---: |
| S dium sulph |  |
| Potassium bron | 50 |
| Water to make |  |

For use diluic with an equal bulk of water. No clearing bath is needed with this developer.

Spots on plates developed with amidol may be removed by treatment with the following mixture. It must, however, be applied very cautiously:

[^3]
## A Good Camera

Is the most lasting amb protitable adver.


## Our Improved '99 Clodel

## 66 <br> BO=PEEP B"

is by far the mest pertect yet produced, and combines in an unusyal degree the ewentialo necenti; for the best results.
It is fitted with our new model ': Wizard 'Shutter and our lerfected Extua Rapid Kectilinear lens. The focussing door is provided with a sprinz and new catch.

PRICE, COMPLETE, \$14.
We make cuerything that is best in the Photographic Line

Platinold (developed with water) Floragraph (Aritotspe)
Wlzard Frro (Blue Punt

Our new little pamphtet will tell you why these ale the best printink paperx, and itdis-
pensable to your stock.

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## The Drug Tr o in Germany.

The number of apothecary shops in: Germany is regulated by Govermment according to the population of each city, town, village or commune, the principle being that, while every community shall be conveniently supplied, the pharmaci.s shall not be so numerous as to prevent each from earning a reasonable income. The proportion of population to each pharmacy is, theoretically, from 8,000 to 10,000, but in a rapidly growing city or town a concession is sometimes given for a district that contains only 7,000 people, but always with the exception that normal growth will soon bring the clientele of the new pharmacy up to the normal standard. The authority to grant concessions for new apothecarics is vested in the Regierungs Prasident, or chief ins perial official in each province or governmental district. As such a concession is considered valuable - the average being aboat $\$ 25,000$-they are eagerly snught for, and there are e'sually several appli cations on file for each new license about to be granted. Provision is made for protests against such new concessions hy the neighboring piarmacies, which naturally resist any undue increase in their number These protests generally show the amuunt of receipts and profit carned by each complainant during the preced ing year, which is certified by the official inspector, who is required to thoroughly inspect all pharmacies in his district at least once in three years, and if a suffi ciently strong case is made out the pending concession is refused or suspended until it may become necessitated by a further increase of local popilation.

Drug stores in Germany are of two classes, the "Droguerie" or wholesale drug store, where the sale of certain drugs in bulk is g . .erally combined with a trade in paints, oils, mineral uaters, and varinus other materials that have no relation to medicine, and (2) the "Apotheke", or true pharmacy, administered by an educated and licensed pharmacist. The differences between these two kinds of establishments are various and radical; for example, the Apotheke is authorized to prepare and sell physicians' prescriptions, while the Droguerie is not ; the pharmacist may keep and sell everything that belongs to the authorized materia medica of Germany, while there is a long list of articles given, on pages 162169 of

- U. S. Consular Repert.

Hec volume herewith tamsmaticu, which the Drogucries are forbidden to keep or offer for sale. Finally, a pharmacy can be kept only by a licensed pharmacist, while any merchant with sufficient capital may keep a Drogucric. Frankfort, with a population of $2.4,4,000$, has 22 pharmaciee and about the same number wholesale stores that make a specialty of certain kinds of drugs and medicimal materials.

In Germany all branches of trade are much more strictly established than in most other countries, and while perfumes may be sold at a department store-but never at a pharmancy-no department store deals in drugs, medicines, or drug. ists' sundries.

No person holding a diploma from college of pharmacy in any foreign country is thereby recognized as a pharmacist and allowed to practise his profession in this country until he has passed the "state examination" as prescribed by the law of Germany. His foreign diploma has a certan value in enabling lum to reach a state examination without undergong in Germany all the prescribed studies, but it is not final, and he must be supplemented by the official German diploma, without which he cannot become even an assist ant in a Serman pharmacy. The course of study by which a student in this coun. try may reach the grade of pharmacist is as follows: The ordinary course of the higher real-gymnasium, in which Latin is obligatory and thoroughly mastered. The candidate then serves three years as apprentice and three yeais more as assistant in an authorized pharmacy. He must then devote three semesters to theoretical study in a G.rman university, at the end of which period he goes up for his state examination, on passing which he receives his diploma and becomes a qualified pharmacist. If he vuys or opens a neir apotheke on his own account he must, before entering upon such business, take, before a qualified magistrate, the follow. ing oath :
"I swear, by the Almighty and All. knowing God, that since the authority has been given me to conduct independently the business of pharmacist in the German Empire, I will, to the best of my knowledge and ability, fulfil all the duties and obligations thereby imposed, or which may be hereafter thereto attached."

Pinarmacists and their assistants are held to strict account for any error or madvertance in prepating medicines under doctors' prescriptions, and cases of
death or sertums onjurs trum such ach dents are said to be rare in this country.

## Optical Alchemy.

Long before the days of spectacles, men of brilliant attainments and pre found knowledge freel; offered up therr lives at the shrine of science in the vain hope of discovering some method of obtaining geld from base metal.

Gold, not merely for its commercial value, but as a materal for the construc tuon of jewelry and kindred atticies, has remamed throughout the ages without a peer, not merely by reason of its ex ceeding beauty and costhness, but owing to its peculiar nature under various forms of alloy, by which it is possible to subjeet it to the greatest amount of stran in manufacture, and from its constant wear, resistung qualitics in subsequent use.

While the alchemist has passed away amid the dark age, superstitions that gave him birth, his dream, as applied to spectacles at least, is being practically re alized amid the multitude of scientific and metallurgical discoveries, with which the closing years of the nineteenth cen tury are teeming.

Following with carefui eje the history of the invention and development of the spectacle, we see throughout the ages a constant effort o produce a substitute for gold as a material for construction. Silver, steel, tortuiseshell, horn and various cheap imitations being successfully tried, and although some of them continued in use they are for the must part unsightly and entirely unsatis factory in the matter of wear.
It was in the iosention of seamless guld filled wure that the uptical alchemust's dream was more than realized.

Perfect in wear resisting properties, of the exact color and lustre of its equiva lent quality in solid gold, and above all from the springmess and elasticity oh tained in the better qualities, it furnishes the ideal material for the construction of spectacleware, second only in value to the solid gold itself.

Messrs. Cohen Brothers, whose an nouncement regarding gold-filled spec. tacleware appears on another page of this issue, while not claiming any of the mystical powers peculiar to the ancient alchemist, have certainly achieved far greater results, as seen in their gold filled huods, whach sequie at expert iv te:? them from the solid gold.

## Optical Department

In charce of W. E. IIasmles, M.D., Pincipal of the Optical Instituse of Canada.

## A Talk on Light.

By W. E. Maxille, Mi.D., Instructor Opical Institute of Canada.
When a stone is dropped into water a series of concentric waves are produced upon the surface of the water, i.e., only in one plane.

When a noise (i.c. sound) is produced in a room from any source, a series of waves are produced in the air, called vibrations; not only in one plane, but in all and every plane, so that no difference in what part of the room a person is situated these waves reach the tympanum (drum) of his ear, and hearing is the result.
"Ether" is supposed to pervade all space, the interior of solid substances not being excepted. 'This hypothetical substance is presumed to possess great elasticity and extreme tenuity, and luminous bodies produce, i.e., set in motion, in this subtle, ela'stic "ether" waves, vibrations, or undulations in a similar manner to the stone dropped into the water or a noise produced in the air. These motions or vibrations in the "ether" produced by a luminous point are called "rays of light," and extend in all directions and in all planes in straight lines, so that an eye, no difference where situated, if it catch these rays, will see the object from which the rays of light emanated by means of an image (i.e., focus) reproduced in the eye.

The above is the undulatory, vibratory, or wave theory of light, and the one generally accepted.

Light, then, according to the above, as previously stated, is that agent in nature which, acung upon our eyes, allows us to see the object from which it comes.

The manner in which motion is set up in this "ether" by a luminous point or body is supposed to be due to the extremely rapid motion of the molecules of which the luminous hody is formed. Our lamps, gas, or electric light, as well as the sun; we believe to i, in a state of ceaseless unrest or molecular motion, which communicates to the "ether" also a motion, i.e., the "luminiferous ether" takes up the motions of the luminous body and conveys them to our "retina," which is the part of our eye speciaily adapted and intended for their reception, and by means of which we are able to
see. The retina convess the impressi in to the brain by means of a special nerve (optic), and sight is produced--just the same as hearing is produced by the motions in the air made by some sound being carried to the brain from the ear by the special nerve, for that purpose. Light, then, is motion, but this motion occurs in a substance we call " ether," which is the medium, scientists say, is necessary to convey light to our cyes.
Sunlight gaslight, lamplight, electric light are evidently the main sources of light with which we have to deal in optics.

It is well here to make a distinction between a "luminous point" or body and an "illuminated point" or body; the latter simply being capable of giving off rays of light by reflection which were berrowed, as it were, from some luminous point, as the sun. Whether the rays come from a luminous or ar illuminated point, an image of the object giving off these rajs can be obtained by gathering up these rays to a focus on a screen by mean of a convex glass, e.g., the photographic camera, which acts in a manner similar to the human eye:

We have now learned that a luminous point gives off what are called "rays of light " in all directions in all planes; and we now state another fact when it is said that these rays are always given off from a luminous point in straight lines, and continue in straight lines so long as they are passing through the same medium ; and, further, that for any given luminous point these rays $p$ oceed in a divergent direction from one another.
It is just as impossible for any two o: more rays coming from a given luminJus point at the same time to be parallel as it is to stick several pins into a given point in an apple and have any two of them parallel. Rays of light, then, are given off in straight lines from a lumin. ous point, and spread out wider and wider the farther they travel from the source of light. Everyone has noticed a streak of lght coming through the closed shutters of a darkened room and perceived that it went in a straight line from the point. of entrance through the shutter to the point of contact with the floor.

This beam of light can by means of an instrument called a " Heliostat " be made
to travel across the room horizontally, and we can walk around $t$ and examine it at our pleasure. R;means of this same instrument a number of rays of light can be made to pass in a parallel direction; such a bundle of parallel rays is called "a beam."

> (Tobe continued.)

VIsual Optles in Theory and Practico.

Mb: limnti Lawrencr,
Listauctur at bisual $\mathrm{O}_{\mathrm{p}}$.は at the Uffictal Classes of the Worshpfut Company of Spectacle Makers, fotmerly Principal of the Cariadian Optical Inxtitute, l'uronto.

The three essentials for the conduct of an optical business on proper lines are: (1) knowledge ; (2) appliances; and (3) stock.

Any person may be a seller of sper. tacles, but only those who have the ie. quisite knowledge of optics can become opticanns, and no amount of stock or appliances can compensate for a lack of comprehension of the subjects the optician has to deal with. In fact, the possession of optical instruments without the knowledge of how properly to use them is often worse than allowing a customer to select glasses for himself. That part of the science of optics of absolute necessity to the retail optician is sufficiently limited to render its acquirement easily possible within a reasonable time to all earnest and fairly cducated students. There is, therefore, no excuse for any member of the retail optical trade failing to make himself proficient, and genuine success as a practising optician can only be assured to those who, intending to take up the line, first obtain the necessary knowledge. It is, indeed, lamentable that the vast majority of spectacle dealers are, to use a mild term, extremely back. ward in the essential principles of visual optics, and it is truly astonishing, considering how general is the need for glasses, and how this need, and consequently the demand, is increasing, that many men of education and good business training should be content to conduct what, with the requisite knowledge, can be made so profitable a source of income, in almost greater ignorance than that permitted or even possible in any other industry. It is true that investigations into the science of visual optics are of comparatively recent date, although Donders, who is the father of refraction, published his celebrated work in England in the year 1864, and it is only of very late years that any attempt towards some


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## PATENTS

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real and pracucal advance has veen made by those councted with optics as a trade. How inconsiderable this advance has been is shown by the condtion of the industry at the present tume, when, perhaps, 90 per cent. of the glasses in use have been sold by allowing customers to try on differemt pairs of varying strength, until they have found somethung presumedly suitable. How wrong thas method is can hardly be appreciaied by those optically uneducated, did they know, it is impossible to concetve that, for the sake of prufi, they would lend themselves to a business likely to do m. fimte harm, be the means of preventing a cure, or, at the very least, be the cause of a fellow-creature not deriving all the beneftr possible from the use of his eyes. Reasons may, howeyer, be found for the present system of optical trading in that-
(a) There is an extensive demand for glasses, whether fitted properly or im. properly.
(b) The profits are large.
(c) The acquirement of a tnowledge oi pracucal optics has been, untul recently, difficult, if not impossible, to ubtain. The undirected reading, or study, in spare moinents, uf buoks on the sutject not materially assistug men otherwise occupied with daily business affars.

Considering thise reasons in their order. The demand for visual aids is grea, and it is only human nature which prompts a man, who lives by the puichase and sale of goods to handle those which he is constantly asked for. The primary causes of the ever increasing demand for glasses is cuilization and education, and the consequens application of the eyes to near pursuits. Except in near vision, the astigmat is not usually appreciably conscious of his defect, nor dues the hyper metrope particularly feel the strain thrown on his accommodative muscles.

Presbyopia is of little material conse. quence unless one wishes to read, write, sew, or engage in other close occupations. Also a certain proportion of eyes must become myopic when, persistently and from an early age, they are used in study and close work. All strains on the external muscular system are augmented and consequently nuted when the eyes are engaged in near vision, optical defects, in general, are usually ignored for distance. Only in mpnpia, where a comparison can be made with the relatively good sight for near objects, is there 2 realization of the defective distant vision, otherwise it is
extremely rare that complaints are made III this respect, no matter how bad the distant sight may be. The hypermetrope or astugmat is usually not conscious of his defectuve sight for remote, because that for near objects is so much worse, con sequently he considers that the former is quite good, while in fact it is frequently only somewhat less bad than the latter.

Those who seldom indulge in close work do not, therefore, feel the need for visual ands to the same extent as those who continually use their eyes for short distances, where strain is so much greater, and where difficulty in seeing, or actual inabilty to see, objec:s of a certain size, such as type, is so much more easily and decired noted. Thus it is with the extension of general education among the masses, with the augmentation of the quantity of literature daily read, with the increase of occupations involving constant adjustment of the eyes for close work, and generally with the great growth of city as compared with rural life and pursuits, that the demand for visual aids has gone up by leaps and bounds. And the city life, the education, and the inprovement in the intelligence of the masses tend to this increase, because under these conditions penple are more nervous, and feel effects more easily, and at the same ume are prone to search for the cause of these effects, and so seek glasses when nature indicates therr need. I do not think that child:en now- $\alpha$-days are whipped at school because they can not see the blackboard or the print; anstead of this ancient method oi improving the sight capacity they are token to the oculist and optician to obtain that which is required to render the vision normal and therefore equal to all calls made upon it.

And, if the increase in the demand for optical aid has been great up to the present, how much greater it can become by legitimate cultivation should not escape the mental grasp of those con nected with the industry or of those who think of becoming so. A portion of the public has already learnt that optical aids are requisite and beneficial. Still, it is only a small proportion, and it is for the opticians themselves to inculcate among the people the appreciation of the existence of their visual errors, the means of correcting them, and the benefits derived from correction. It is difficult to com pute what proportion of the British public m ght he wearing specta-les with benent to health and working capacity, with
increased coanfort and greater enjoyment of life. But it is certainly by far th. greater part of the population, whilst it is ,possible that not more tran so per cent of those under forty years of age are, as yet, spectacle-wearers. Only a very small percentage have normal eyes, and, as is well known, so soon as the age of forty or forty-ive is passed everyone, as a natural sefuence, must become a wearer ni glasses if he wishes to be able to continue the use of his eyes for close work with any sense approaching comfort.
Thus it will be seen that the field of operation is, fo: the uptician, of practicai ly illimitable extent. How best to indure the public to become a spectacled instead of a non-spectasled one, to the mutual benefit of the buyers and sellers of glasses, should be one of the principal aims of the educated and advanced optician.
It is doubtful whether any atticles in equal demand bear proportionate to their cost so substantial a rate of profit as do glasses. One reason for this is that the buyer does not, as a rule, want cheap, or, rather, low.priced spectacles or eys glasses. He knows instinctively that the best attention is demanded in the selec tun of aids for the sight, and conibined knowledge of buyer and seller resuits .it the purchase and sale of a very goud grade or very high prired article, is the. case may be. The spectacle wearer, in his sublime innocince, is rather pruad ut pointugg to the fact that he alway, dut all that was possible to preserve his sught by buying real pebbles or periscopic lenses! He thanks because the retalter so thinks, and communicates uncun scicusly his convictions to his customers, that these special lenses with, perhaps, fancy, high flown names, have peculiar virtues absent in other goods, and can preserve or restore the sight, no matha what the power of the glasses or what the nature of the defect. The retail upticai trade is profitable,withuut any doubt, but, when the optician is optically educated, it can be made infinitely more so. The thorough optician knows what is required of him, and his very knowledge inspires confidence in his customer. Colasses selected are of real benefit to the wearer, and, in cousequence, honestly worth a fair figure. Customers are mure numerous, and there should be absolutely no dead stock.

What knowledge is requiste by the retail optician might almost be summed up in the following words. He requares to know what the public needs. Now, in
order to know this, he must have some knowledge, elementary, it is true, sf the anatomy and phystology of the eje, for without such knowledge he can neither advise as to the glasses required, nor can he,as is so very frequertlynecessary, counsel that the oculist be consulted. An elementary knowledge of the cye is as neces. sary for the optician as a complete knowledge is for the oculist. He requires to understand light, what it is, and how it travels, the laws of refraction and reflection, lenses, their formation, properties, how to analyze and neutralize, and transpose them. He has to urderstand errors of refraction and accommodation and how to determine and measure them. For the latter he must comprehend the trial case and its use, test types and charts, and their principles, also the use of all the various instruments that are applicable for testing and examining the cyc.

Further, the optician has to understand how to conduct an optical business, the stock that he should carry,both as regards quantity and variety, and under what conditions the various kinds of frames serve. He must know how properly to read and write optical prescriptions, and how to fit and manipulite frames so that the best effects be obtained from lenses prescribed, and how: to take facial measurements for frames when needed.

In catering for trade in optics the great guiding principle of the optician should and must be to do his best to serve the public; this principle must stand out pre-eminent and every other must be secondary. When a customer places himself unreservedly in the hands of the optician, there can be no doubt in the mind of any honest man that he must receive the very oest of care and attention, and that no advantage be taken of his confidence No trouble should be too great to get at what is required, and when there is any doubt of it, when the case is not understood, no glasses should be sold ; it cannot be right to trade on the ignorance of the bujer and so cause his connidence to be misplaced. And if this be truc, and the proper course for every optical dealer to follow, it stands to reason that those who are not versed in visual optics should not sell glasses at all, because they can understand no case that presents itself to them.

It pass well to serve the pubiic proper. ly; when glasses are bought they are not wanted cheap; the cheap spectacle or
eye-glass, in the opinion of the public, is the same as the article of little or no value. The optician who understands his business and inspires, as he should, confidence in his customer, can always obtain for the article supplied a price commensurate with, not only the actual cost of the article, but also with the time and trouble required in finding the proper thing. In plain words, the customer pays not only for the spectacle or eyeglass which he buys, but also tor the knowledge and time of the optician.

- Ar:din this connection of considering first and foremost, of doing one's duty to the public, it is of the very highest necessity that the optician should be able to discrimmate between cases of defective sight which are due to error of refraction and those which are due to pathological conditions. The optician must be cap. able of at once discriminating between the cases of refractive error and cases that indicate disease; between simple and purely optical cases for which he may supply glasses, and those which, being complicated, require rather medical attention, or the latter in addition to optical corrections, and which, therefore, must not be treated by the optician who has had nu medical training.-Phar. Journal (Eng! 1 nd).


## Books.

Tue Medical. News Pocket ForaluImRY FCR I8g9-Containing sixteen hundred urescriptions representing the latest and most approved methods of adminis. tering remedial agents. By E. Quin Thornton, M.D., Demonstrator of Therapeutics, Pharmacy and Materna Medica in the Jefferson Medical College, Philadelphia. In one wallet-shaped volume, strongly bound in leatiser, with pocket and pencil. Price, $\$ 1.50$ net. Lea Brothers \& Co., publishers, Philadelphia and New York.

This certainly is une of the most help. ful and complete pocket volumes that a physician could possess. The prescrip. tions have been 3:ranged uader alphabetical headings of discases, an arrangement which facilitates the reference to any portion of the work. The name of the author is sufficient guarantee of the valite of the formulte submitted, and which we understand have been gleaned from the recommendations of the world's leading medical men. Modern pharmacy has not been lost sight of in presenting
formula, which not only give elegance in appearance but also palatability, two very - essential points in modern therapeatics.

Assay of Drugs and Gabimicals. By Dr. A. B. Lyons, F.C.S. Price, 75 cents. Ne'son, Baker \& Co., Detroit, Mich.

This work is one that will recommend itself to every student of pharmacy. It treats very fully of the many processes by which crude drugs and galenical prepara. tions are valued and standardized. The work is fully up to date, and the author is one who is well known as an authority on pharmaceutical matters, being also a frequent contributor to several journals.

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## JAMES A, KENEEVY \& CO.,

wholesale druggists
423 Richmona St. LONDON, Ont.


| A | $\$ .175$ | \$5 0 |
| :---: | :---: | :---: |
| Methyl. | 190 | $2 \infty$ |
| Athsince, 1 b | 13 | 15 |
| l'owdered, th | 15 | 17 |
| Al.ois, oz. | 40 | 45 |
| Anomine, lloifman's trot, lis... | 50 | 55 |
|  | 40 | 45 |
| St. Vincent, 1 l . | 15 | 15 |
| Bassm, Fir, lh. | 45 | 50 |
| Copaika, lli. | 70 | 55 |
| ['cra, Jb... | 325 | $3{ }^{3}$ |
| Tolu, can or less, 16 | 70 | 75 |
| Вatk, larlerry, lb. | 22 | 25 |
| Bayicrrs, lts.. | 15 | 15 |
| Ruckihorn, 16 | 55 | 17 |
| Canella, lb. . | 15 | 17 |
| Cascara Sagraia | $=5$ | 30 |
| Casarilla, select, lb | 15 | 20 |
| Cassia, in mats, lli. | 25 | 25 |
| Cinchona, red, lt.. | 60 | 65 |
| Powdered, It | 65 | 70 |
| lellow, lb | 35 | 40 |
| Palc, th. | 40 | 45 |
| Elm, selected, $\mathrm{H}_{3}$ | 15 | 20 |
| Ground, lb .... | 17 | 20 |
| Powdered, 1!. | 20 | 2S |
| Hemlock, crusined, lh. | 1 S | $\leq 0$ |
| Oak, white, crushed ib | 15 | 17 |
| Orange peel. bitier, 11. | 15 | 16 |
| 1'rickly ${ }^{\text {ash. }} \mathrm{ll}$. | 35 | 40 |
| Sassafras, ib.... | 15 | 16 |
| Scup (quillaya), il | 13 | 15 |
| Wild cherry, $16 .$. | 13 | 15 |
| Spans, Calahar, lb. | 45 | 50 |
| Tonk: $1 \mathrm{l} . .$. | $1=0$ | 875 |
| Vanilla, lb...... | 50 | 1500 |
| Berkins, Culreb, sifted, lh...... | 20 | 25 |
| prewered, lib.. | -5 | 30 |
| Juniper, lb. | 7 | 10 |
| Ground, 11 | 12 | 1.4 |
| Prickly ash, lb, ....... | 40 | 45 |
| Buns, Ialm of Gilcad, Jb........ | 35 | 60 |
| Cassia, lli.... | 25 | 30 |
| Butter, Cacan, lb | 60 | 65 |
| Campilor, lb..... | 60 | 75 |
| Castharides, Ilessian, lb. | 140 | 250 |
| Powdered, lb. |  | 160 |
| Carsictis, lb....... | 25 | 30 |


| lowdered, 1h .......... ... 5 | $530 \$ 35$ |
| :---: | :---: |
| Caxton, Bisulphide, lh.. .... | 1516 |
| Cabinife, No. 40, 02 | 30.40 |
| Castor, Fibre, ll . ............. 20 | 20002000 |
| Clalk, Fiench. prudered, lh... | $10 \quad 12$ |
| I'recip., see Calcium, ib... | $10 \quad 12$ |
| l'scpurad, $16 . . .$. | E |
| Cinarcoal, inimal, powd., ib. | 45 |
| Willow, powdered, 11, | 2025 |
| Clover, 16.............. | 1720 |
| :'oudered, Ib | 1522 |
| Cocilineal, S.C., lb | $40 \quad 45$ |
| Col.s.onos, 11 l .... | 75 So |
| Cantharidal. Hh................. $=$ | $250=75$ |
| Confrction, Senna, | $40 \quad 45$ |
| Criosote, Wool. ll.............. 1 | $130=50$ |
| Crenssot. (Jzien) 4 Oz lonles, par do " 412.02. hotiles, per din | er do +50 er ior. 1050 |
| Cuttlerish Ilone, lb. | $25 \quad 30$ |
| Dratrine, H. | 10 12 |
| Dotkk's Pownek, ll............ | 150160 |
| f:kcot, Spanish, ll. | 75 So |
| Youilered, 1h... | 40100 |
| Ergotin, Keith's, $02 . . . . . . .$. .. 20 | $200=10$ |
| Extract lownoon, bulk, ll.. | 1314 |
| lounds, Ib. | 1917 |
| Fı. ${ }^{\text {chexs, Annica, }}$ lb | $15 \quad 20$ |
| Calendula, 16. | 5560 |
| Camonilie, Koman, | $25 \quad 30$ |
| German, lh..... | 40 45 |
| Elder, 16.. | 2022 |
| I-avender, lt... | $12 \quad 15$ |
| Rose, red, Firench, H.......... | $1 \times 0=0$ |
| Kosemary, 16.. | 3530 |
| Saffron, American, ${ }^{\text {a }}$ | $65 \quad 30$ |
| Spanish, Val'a, oz........... 1 | 100 125 |
| Grintine, Cooprers, lb..... .... | 75 So |
| French, whitc, ll................ | 3540 |
| Glicensine, lb. | 1720 |
| Guarasa..................... 1 | 100110 |
| [oudered, lh.................. | 125135 |
| Gun Aloes, Cape ib | 1520 |
| llarbadoes, lb.... | 3050 |
| Sucotrine, lli. | 6530 |
| Asufictida, 11 | 40 45 |
| Aralic, Ist, lb. | 7075 |
| lowricerd, lis | So 95 |
| Sified sorts, 16 | 4550 |
| Sorts, ll,.................... | 30 53 |
| Menzoin, lh................... | 50100 |
| Catechu, lilack, 1 | $5 \quad 20$ |
| Gamlnge, powdered, lb....... 1 | 120125 |
| Guaiac, ll...................... | $50 \cdot 0$ |
| F'owdered, lb................ | 9095 |



| Seuna, Alexandria, lb......... $\$$ | 25 \$ | 30 | Rhatany, if . ............... $\$$ | 20 | \$ 30 | Antinbryin, oz .. ....... . |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| finncvelly, ib............... | 15 | 25 | Rhubari, 16 ... ............. | 75 | 250 | dsathamsia... | 135 |  |
| Stramonium, 1 | 20 | 25 | Sassaparilla, 1 | 40 | 45 | dntarmen, ux. | 055 | - 0 |
| Uva Urei, It | 15 | 18 | Cut, lb | 50 | 55 | Aksisiol., | ${ }^{1} 5$ | 20 |
| Lereates, Swedish, dow | $1{ }^{1}$ | 110 | Senena, 1 l | 55 | 05 | Arsesic, Donoran's sul., ll, | 25 | 36 |
| ıлсониее, Sulazi.. | 45 | 50 | Squili, 1t | 1.3 | 15 | Fowler's sol., 1l... | 10 |  |
| l'ignatelli. | 35 | 40 | Stillingia, ll | 22 | 25 | lodide, uz. | 50 | 55 |
|  | 30 | 35 | Powdered, | 25 | 27 | White, 111. | 6 |  |
|  | 27 | 30 | Unicorn, lb................. | 35 | 40 | Atronine, Sulp. in $\frac{1}{\text { ors. Sce., }}$ |  |  |
| ". Purity, 100 sticks in box | 75 | 75 | Valerian, English, ib. true. | 20 | 25 | ¢2.................... | 600 | 625 |
| $\because$ Puuty, 000 sticks in box | 150 | 150 | Virginia, Snake, It | 40 | 45 | Bismuth, Ammonia.citrate, oz | 40 |  |
| ". Acme Pellets, 5 lb. tins | 200 | $\underline{20}$ | Yellow Dock | 15 | 15 | Iodide, ox.. | 55 |  |
| $\because \mathrm{Cl}$ Lozenges, 5 ll . tins.. | 200 | 200 | Rum, Bay, gal | 250 | 275 | Salicylate, oz. | 25 |  |
| " Tar, Licorice, and Tolu, |  |  | Essence, Ib | 300 | 325 | Subcarbonate, | $\bigcirc$ | 225 |
| ${ }^{5} \mathrm{lb}$. tins.......... | 200 | 200 | Saccharis, oz.......id..... | 25 | 150 | Subnitrate, ll | 180 | $2 \infty$ |
| L.UPULIN, 02. | 30 | 35 | Semb, Anise, lhalian, sifted, 1 l . | 13 | 15 | Bohax, ib | 6 |  |
| Lxcoromiam, ib | 70 | 3 c | Star, lb. | 35 | 40 | Yowdered, It | 7 |  |
| Macs. 16. | 120 | 125 | Burdock, | 30 | 35 | Bromish, oz | 8 |  |
| Massa, ib | 160 | 175 | Canary, bag o | 4 | 5 | Cadmiun, Bromide, | 20 | 25 |
| Moss, Iceland | 9 | 15 | Caraway, il. | 10 | 13 | Yodide, oz.. | 45 |  |
| Irish, 11 b | 2 | 13 | Cardamom, | 15 | 225 | Caprbine, | 55 |  |
| Musk, Tonquin | $46 \times$ | $50 \times$ | Cele | 25 | 30 | Citrate, | 35 |  |
| Nutgalls. lb | 21 | 25 | Colchi | 50 | 60 | Canctus, llypo |  |  |
| Powdered, | 25 | 30 | Coriander | 10 | 12 | Iodide, ox.. | 95 | 100 |
| Nutmbgs, lb | ${ }^{1} \times$ | 110 | Cumin, 1 | 15 | 20 | Phosphate, | 35 | 3. |
| vux vomica, | 10 | 12 | Fennel, ll | 15 | 17 | Sulphide, oz.... | 5 |  |
| Powdered, 11 | 20 | 25 | Fenugreek, powdered, 11 | 7 | 9 | Ceriunt Oxalate, | 15 |  |
| Oakun, li. | 12 | 15 | Flax, cleaned, lb | 31 | 4 | Chisommer, oz | 15 |  |
| Onsamest, Merc., Ib. 12 and 12. | 70 | 75 | Ground, Ib |  | 5 | Chizoral., Mydra | 25 |  |
| Citrine, lb . | 45 | 50 | Hemp, ib | $3^{13}$ | - | Croton, | 75 |  |
| Pakaiderayob, | . 0 | 22 | Mustard, white, | 11 | 12 | Culorofors, lb | 60 | 190 |
| Pripek, black, | 16 | 18 | Poudered, it | 15 | 20 | Cischosise, sulpha | 25 |  |
| Powilered, | 15 | 20 | Pumpkin | \% | 30 | Cinchonamse, Sulph | 25 |  |
| Pitch, black, Il |  | 4 | Quince, | 65 | 70 | Cocanse, Mur, oz | 40 | $\begin{array}{r} \\ +50 \\ \hline\end{array}$ |
| Bergendy, true, | 10 | 12 | Rape, | 5 | 6 | Codela, ${ }^{\text {a }}$ oz | 75 |  |
| Plastek, Calcined, bbl. cash.... | 125 | 325 | Strophanthus, | 50 | 55 | Coliombos, 1 lb . | 65 |  |
| Adhesive, yd................ | 12 | 13 | Worm, ib | 22 | 25 | Corper, Sulph., (thue (ïriol) li. |  |  |
| Helladonna, lb | 65 | \% 0 | Seidlitz Minture, ib. | 25 | 30 | lodide, oz | 65 |  |
| Gallanum Comp., lb.... ..... | 80 | 55 | Soar, Castile, Mottled, pure, ll.. | 10 | 12 | Corpreas, lb. | 1 |  |
| Lead, 1 h. | 25 | 30 | White, Conti's, | 15 | 16 | Diustrin, oz | 60 |  |
| Poury Ileads, per | 100 | 110 | Powdered, | 25 | 40 | Ether, Acetic, | 75 |  |
| liostis, Cummon, lt | 23 | 3 | Green (Sapo | $\pm 5$ | 40 | Sulphuric, |  |  |
| White, It | $3 \frac{1}{2}$ | 4 | Spermaceti, l b | 60 | 65 | Exalgine, oz. | 100 |  |
| Rrsorcis, wh | 25 | $\bigcirc$ | Turderstine, | 75 | So | Hvoscramise, Sulp., crystals, gr. | 35 |  |
| Rochelle Salt | 25 | 2S | Venice, Ib | 10 | 12 | lomise, lb . |  | 50 |
| Soot, Aconite, | 22 | 25 | Wax, White, | 50 | 75 | lonorokm, | 525 | 550 |
| Alhea, cut, | 30 | 35 | Yellow | 40 | 45 | lopol, 0 |  |  |
| Belladonna, | 25 | 30 | Woov, Guaiac, raspe | 5 | 6 | 1kon, by llydrog | So |  |
| 3loon, 16... | :8 | 25 | Quassin chips, Ib. | 10 | 12 | Carlonate, Pre | 15 |  |
| Bitter, 1 b . | 27 | 30 | ked Saunders, grou | 5 | 6 | Sarch., th | 30 |  |
| 13lackherry, | 15 | 15 | Santal, ground, it | 5 | 6 | Chloride, ${ }^{1}$ | 45 |  |
| 13urdock, crushed, lb......... | is | 20 | chmmicals. |  |  |  |  |  |
| Calanus, sliced, white, ll..... | 20 | 25 | chrmicalas. |  |  | Citrate, U.S.P., | 90 |  |
| Cannda Snake, | 30 | 35 | $\therefore \mathrm{Ac}:$, Acetic | 12 |  | And Anmon., | 70 |  |
| Cohosh, black, | 15 | 20 | Glacial, 16 | 45 | 50 | And Quinine, | 50 | 3 |
| Colchicum, 1 | 40 | 45 | Benzoic, Engli | 20 | 25 | Quin. and Stry | is |  |
| Columbo, it | 20 | 22 | Germian, oz | 10 | 12 | And Strschnine, oz | 13 |  |
| lourdered, | 25 | 30 | Boracic, 1b, | 12 | 13 | Dialyzed, Solution, 1 | 50 |  |
| Coltsfor, il | 35 | 40 | Carbolic Crys | 30 |  | Ferrocyanide, 1 b . | 55 |  |
| Comfrey, crushed, lb. | 20 | 25 | Calvert's No. | = 10 | $=15$ | Ilypophosphites, | 25 |  |
| Curcuma, powdered, lt. | 13 | 14 |  | 135 | 110 |  | 40 |  |
| Dandelion, 1 lb .. | 20 | 22 | Citric, lb | 50 | 35 | Syrup, lb. | 40 |  |
| Elecampane, | 15 | 20 | Gallic, oz. | 10 | 12 | l-aciate, oz.. | 5 |  |
| Galangal, ib | 15 | 18 | Hydrohromic, diluter | 30 | 35 | pernitrate, solution, | 15 |  |
| Gelsemium, lb | 22 | 25 | Hydrocyanic, diluted, oz. boutes |  |  | Phosphate sentes, | 125 | 1 |
| Gentian or Genitan, lh........ | 12 | 13 |  | 50 | 160 | Sulphate, pire, hl. ........... | 7 |  |
| Ground, 11 , | 13 | 14 | Lactic, conce | S | 10 | Exsiccated, 1h....... | $\stackrel{3}{3}$ |  |
| Powdered, 1 l | 13 | 15 | Muriatic, it | 3 | 5 | And Potass. Tartrate, lli. | 80 |  |
| Ginger, Arrican, | 18 | 20 | Chem. pure |  | $=0$ | And Ammon Tartrate, 11. | So |  |
| po., 1 b | 20 | 22 | Nitric, th.... | 101 | 13 | Ifres' Fi.tid, 25 c . boitles, per dom |  |  |
| Jamaica, blth., lh......... | 30 | 35 | Chem. pure, | 25 | 30 | 50c. bontles, per dez |  |  |
|  | 35 | 3 S | Oleic, purified, th............. | 75 | So | (.uad, Acelate, white, ii | j |  |
| Ginseng, lh... Golden Scal, | + 50 | + 75 | Oxalic, lic................ | 12 100 | 13 | Caalonate, lh................. |  |  |
| Golden Seal, 16 Gold Thread, lb | 75 98 | So 95 | Phosphoric, glacial, Dilute, li. | 100 | 10 17 |  | 35 |  |
| Hellelore, white, powd., lb... | is | 20 | Prrogallic, o | 30 | 35 |  |  |  |
| Indian Ilcmp................. | 18 | 30 | Salicylic, white, ih............ | 75 | So | Lime, Chlorinat In packages, 1 | 4 |  |
| 1pecac, li........... ... .. | 350 | 360 | Sulphuric, carios, th.......... | $2!$ | $2 \frac{1}{3}$ | in packages, | ${ }^{6}$ |  |
| 1'owdered, lh............... | 375 | $\pm \infty$ | Boitles, 1 ll |  |  | Carionate, oz ... | 30 |  |
|  | 40 | 45 | Chem. pur | is |  | Catrate, oz .. | 5 |  |
|  | 60 | 65 |  | So | S5 | loditc, oz.. | 50 |  |
| Каง.. Кама, 11................... <br> lientice, ll, | 12 | 15 | Tartaric, AEETANILID, \% | $3{ }_{6}$ | 40 | Salicylate, oz. | 35 |  |
| Powicred, 1b............ .. | 13 | 15 | Aconitise, grain. | 5 | \% | Magnesium, Ca | 55 |  |
| Mandimke, 1b................. | 13 | is | ALUA, cryst. Ib. | 13 | 3 | Carlonat, lb | is |  |
| Masterwort, lb | 16 | 40 | Powdered, lb................. | 3 | , |  | 35 |  |
| Orris, Florentine. il | 30 | 35 | Amмavia, Liquor, lb., isSo..... | 10 | 12 | Suph. (Epkon salt. li. ....... |  |  |
| loudered, it | 40 | 45 | Ammonium, Bromide, lb...... | So | S5 | Mancanksf, Black Oaide, th.. | 5 |  |
| Pheira Brava, true, lb. | 40 | 45 | Carlonate, lib | 14 | 15 | Mevtiol, oz.................. | 25 |  |
| rink, lli. | 40 | 45 | Iodide, nz.. ................. | 35 | 40 |  | 35 |  |
| Parsicy, | 30 | 35 | Nitratic cryst ils, lb............ | 80 | 45 | Ammon (White Precip.).... | 125 |  |
| Pleurse), 16.................. | 20 | -5 | Muriate, lh.................. | 12 | 16 | Chloride, Corrosive, lu.... . | +90 |  |
| Qoke, lu .............. ....... | 15 | 18 30 | Valerianate, | 55 16 | 15 | Calomel, it ${ }_{\text {With Chalk, }}$ | 105 50 |  |

## Announcoment of Importance to Every Physiclan.

Messrs. Lea Brothers $\&$ Co, ambunce for publication in March, 1899, the first volume of Progressize Medicine, a new annual which will be issued in four handsome octavo, cloth bound and richly illus. trated volumes of about aco pages each. The several volumes will appear at inter. vals of three months. In this age of unusual progress, so rapid is the advance in all departments of medical and surgi cal science that the need for condensed summaries which shall kee; the practi tioner up to date at the least possible expendture of valuable time bas become imperative. Many altempts in the way of Year-ibooks, Retrospects and Abstracts have been made to meet thas growing need, but in nearly all of these the pro cess of condensing has not been preceded by a sitting of the good from the useless, and consequently the reader is presented with a mass of information from which he must select with care and study the items which are useful and reliable.

What the busy phystcian needs to day is a well-told tale of medical progiess in all its lines of thought, told in eacin line by one well qualified to cull only that matter worthy of his attention and neces. sary to his success. He needs material which shall teach him all that the master of his specialty knows of the year's work.

It is with the object of presenting only such readable and useful maternal that these volumes are published, and every contributor 10 the pages of Progressize Medicine will say what he has to say in an original narrative form, so that every statement will bear a personal imprint expressing not only the views of the author cited, but the opinion of the contributor as well.

To insure completeness of material and harmony of statement, each norrative will receive the carefu! supervision of the General Editor, Dr. Hobart Amory Hare, whose reputation will everywhere be acknowledged as ensuring practical utility in a high degree. Those associated with Dr. Hare in the production of Progecesiec Meditine include a brilliant gathering of the younger elemem of the profession, well representing the class which is so energeticallycontributing to make modern medical history.

With the alpyeciation of the self-evident utility of sucha work to all practitoners, the publishers are enabled to ask
the very muderate subsciption price of len dollars for the four volumes.

The publishers offer to send full descriptive circulars and sample poges to those applyng for them.

## Frank Leslio's for January, 1899.

frank Leslic's Popular Monthis for January is a royal holday number, and sets a very high standard for the coming year. The feature par excellence is the complete story of the sinking of the Merrimac at the mouth of Santingo harbor las: June, as told in a straightorward. dramatic narrative by lieutenant Hobson's chosen belmsman in that historic exploit-the gallant young Osborn Deig. nan, from Iowa.

This same January number of Frank Leslie's Popular Monthly comtains, in ad dition to the story of the Sferrimat, the first of a series of arucles by the celebrated war correspondent, Thomas $k$. Dawlej, Jr., recountugg his exciting ex periences while "Campaigning with Gomez," in the wilds of Cuba; "In a Klondike Cabin," by Joaquin Miller, the Poet of the Sterras, who has recently returned from Alaska; the first part of a new Cahforma stury, by Bret Harte, en titled "Mr. Jack Hamhn's Medranon", "Women in Politics," by the Marquise Lanza; "Naval Signalung, and Carrier Pigeons," by Joseph C. Groff, "The Orphan of Belleville," a charmang and seasonable story, by Francous Coppee; "The Edge of the Marsh," a complete short tale by Eua W. Paerce; poems by Edith M. Thomas, Muna Irving, Clumon Scollard, Martha McCulloci-Williams, Susan Archer Weiss, and others: and a varied "Margina'ia" department, including contributions by R. K. Munkit. trick, James B. Cable, Charles 11. Crandall, Isaac W. Enton and St. Julien Gramke.-Frank Leslie Irablishing Sfouse, $N$.

## The Cosmopolltan.

To have the men who have demonstrated their organzing ability by great business successes well thetr secrets of organtation is the object of the cuitur of the Cosmopolitan. That ine is succecding is proved mine January issue by the article from Chirles R . Flith, who is regarded in New Yurk as one 0 the three or four ablest o:gna zeis in imentica. He is president of the Kubuer Trust and :le head of the great mercamule house of

Flint. Eiddy is Po. which has its ratmifi cations in almost every part of the world. Mr. Flint tells very openly what makes for success in the organization of business, His artucle may be read with mterest by the Rockefellers, the Armours, and the Wamamakers, as well as by the humblest cletk secking to fathom the secret of business success.

In the same lute is an atticle, also in the January Cosmonotitan, telling how Mr. Platt organized and conducted the campatgn for the election of Roosevelt It is by a gentleman who was actively engaged at the Republican headquarters durng the campaign, and who gives a vivid picture of the perfection to which poltacal organization has been carried in New York State by the mos: astute of managers. The wary old senator who has been a lifeume in polities and the youngest pohtical aspram will alike fini food for reflection in Mr. Blythe's article

## St. John, N.B., as a Winter Port.

The Poard of Trade of St. John, N.IB., have issued a bandsome illustrated pamphlet descriptive of that city and the beautiful Bay of Fundy, upon which it is situated

The pampiblet has been prepared mainly with a view of emphasizung the advantages of St. John as a winter port for the Domiaion, and the loard of Trade deserves credit for the enterprise it has shown and the conclusive proofs it has gut forward as to the clams of that port.

## 100 for One Dollar

We are in receiph of a copy of a sertes of advethisements for druggists use fu'ristad by llarry M. Graves, Wilhanswown, Mass. Jut few druggists have the trate and perhaps fewer stll the tabne fir preparng a sentes of adverusements for the local papers or whatever stgle of advertang they do. It is to save this tme and fermsh the maternal without hat ong to thme them out that these sample " ads " are publus?ed.

The copy before us pives a selection of 100 addeathements wheh maj be used exactly as written or altered to surt the weas of the drugyst. One dollar will be well spert m secungs a coply of this work. Kead the adve. in this issue.

He who thanks the can corner all the busmess in his town is hmself corneicd by the narrowness of has own judgment.

| Oxide, Red, ili.............. | 15 | 126 120 | Salicyla | $\infty$ |  | Rose, , ${ }^{\text {niper berries ( }}$ ( English), | 320 | 350 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pill ( Blue Mass), It | 70 | 75 | Suphite, tb . | \$ | 10 | Wood, ll. . . . . . . . . | 70 | 550 |
| Mank Suciak, powdered, It | 30 | 35 | Somsil, oz.. | S5 | $\infty$ | L,avender, Chiris. Fleur, |  | 55 |
| Morpmisk, Acetate, oz | 190 | 20 | Sitkit Nitke, 11 | 35 | 65 | (iarden, lla | 75 | so |
| Muriate, oz. | 190 | 200 | Strostiom, Nitrate, it) ........ | is | 20 | Lemon, lb. | So | 60 |
| Sulphate, o | $2 \infty$ | 210 | Strychnine, ctystais, oz....... | So | 85 | 1,emongrass, | 50 | $\infty$ |
| Prpsis, Saccharated | 35 | 40 | Sul.fosal, oz... .- | 56 | 60 | Mustard, Essential, oz | 60 | 60 |
| Phemactine, or. | j0 | 32 | Suiditus, Flowas of, HI........ | 21 | 4 | Neroli, oz... | 425 | $+60$ |
| Phocarimine, Mui | 7 | S | lure precipitated, 1 | 13 | 20 | Orange, 11 . | 275 | 75 |
| Pherin, oz | 100 | 110 | Taktar Emitic, lb | 50 | 55 | Sweet, it | 75 | 300 |
| Phosinokus, 16. | yo | 110 | Tasmol (Thymic acid), oz | 55 | 60 | Origanum, Il. | 65 | $5^{5}$ |
| Potassa, Caustic, white, | 60 | 65 | Vekatrise, oz........ ... | 200 | 210 | Patchouli, oz. | So | 50 |
| Potassimm, Acetate, lb. | 35 | 40 | Tisc, Acetate il | 70 | 75 | Pennyroyal, 11. | 60 | 75 |
| Bicarbonate lb. | 15 | 17 | Carbonate lli.. | 25 | 30 | Peppermint, H . | 60 | 75 |
| Bichromate, b ...... | 12 | 13 | Chloride, granular, 02 | 13 | 15 | pimento, lu |  | 205 |
| Bitrat (Cream Tart.), 11 | 25 | 25 | Iodide, oz. | 60 | 65 | Rhodium, | So | 85 |
| Bromide, ils. | 70 | 75 | Oxide, 13. | 13 | 60 | Rose, oz | 750 | 1130 |
| Carbonate, 16 | 12 | 13 | Sulphate, lib. | 9 | 11 | Rosemary, | 70 | 50 |
| Chlorate, Eng., 1 l | 18 | 20 | Valcrimate, oz. | 25 | 30 | Ruc, oz... | 35 | 50 |
| Powdered, It | 20 | 22 | SSESTLAL OLlS. |  |  | Sandalwood, | 550 | 770 |
| Citrate, 16. | 70 | 25 | On, minond biter oz. ons. |  |  | Sassafras, 16 | 75 | - |
| Cyanide, lb. | 40 | 50 | Onl, smond, bitter, oz. | 75 | So | Savin, ll). | 60 | 5 S |
| Iodide, li..... | 350 | 375 | Sweet, in .... iib | 40 | 50 | Spearmin, | 375 | 79 00 |
| Nitrate, gran, it | 3 | 310 | Amber, crata, ib | 40 | 45 | Tansy, it | 65 +25 | $\begin{array}{r}\text { ¢ } \\ 4 \\ \hline 8\end{array}$ |
| Permanganate, lli. | 40 | 45 | Anise, lib. | $\infty$ | 325 | Thyme, white, ib, | 1 So | 15 |
| Prussiate, Red, 1 h | 50 | 55 | Bay, oz. | 50 | 36 | Wimergreen, ib.. | 75 | 85 |
| tellow, 17. | 32 | 35 | Bergamot, il | 325 | 350 | Wormseed, ib. | 350 | 375 |
| And Sod. Tartrate, | 25 | 30 | Cade, ib.. | 90 | 100 | Wormwood, 1b. | 425 | 450 |
| Sulphurec, 1b.. | 25 | 30 | Сајирия, lh. | 160 | 170 |  |  |  |
| prorimiamise, oz. | 35 | 46 | Capsicum, oz | 60 | 65 | FXRD Oll.s. |  |  |
| Quasise, Sulph, bulk | 30 | 35 | Caraway, it. | 275 | $3 \infty$ | Castok, lib. | 13 | 15 |
| Ozs., oz........ ............ | 35 | 40 | Cassia, il | 275 | 3 co | CCbl LNER, N.F., gal. | 90 | 95 |
| Qusimmse, Sulphate, ozs., oz... | 16 | 20 | Cedar. | 55 | 55 | Norwegian, gal .... | 160 | 70 |
| Salicis, lt.... ............. | 450 | 500 | Cinmamon, Ccyl |  | 30 | (oitoseend. gil ... | 110 | 20 |
| Sastonis, oz........... Sulvek, Nitrate, cryst, | 20 80 | 22 35 | Cisonella, | So | S5 | Carit, gal....... | 90 | $\infty$ |
| Sulven, Nitrate, cryst, Fused, oz........ | So | S5 | Clove, lb, |  | 130 $=00$ | linseen, hoiled, gal | 56 | 59 |
| Sontus, Acetate, lib. | 30 | 90 | Copaton, ill |  | 100 175 | linct gal | 55 120 | 50 30 |
| Bicarlyonate, kgs., lb. | 275 | 300 | Cuheb, ${ }^{\text {che }}$, | 250 | 30 | Olive, gal. | 130 |  |
| Bromide, ${ }^{\text {Cathona }}$, | 70 | 75 | Cumin, 13. | 550 | 6 co | Saiad, gal. | 250 | 260 |
| Carbonate, 16.... | 3 | 6 | Erigeron, oz. | 20 | 25 | Pain, 1 ,... | 12 | 13 |
| Ilypophosphite, oz | 10 | 12 | Eucalyptus, 13. |  | 175 | Strem, gal. | 150 | 60 |
| Ifyposulphite, II, ....... .... | 3 | . | Fennel, m............. . ... | 160 | 175 | Tunirestise, ama | 70 | 73 |

## Drug Reports.

## Canadian Market Report.

The year just closed has apparently been a profitable one in all lines of business. Reports from retall druggests indi. cate it has been an improvement on previous yearsand the result of 1899 promises to be even betacr. The prices rulung during t 89 S have been fairly steady whth little outside the usual fluctuations that marked previous years." The variations that have occurred have all been in favor of the buyer. No important falures have occurred durng the year and obligations have been met with more than usual promptness, which indicates a healthy condition from the financial standpoint.

We would suggest to retanl druggists the folly of trying to get the large profits that have existed in years gone by,particularly on articies the sale of which is likely to be absorbed an other lines of business, and the successful druggists in the jears to come will be those that merease their turn over on smaller profits and bring their business down to a cash basis. No one can afford to sell goods at cut rate
and give credit, it will only end in dis aster. During the last month changes in values have been unimportant and it is a little early to forecast changes that may possibly occur as spring trade opens up. Guinine and opum are unchanged at the late advance. Caniphor will likely rule ligher this spring. Turpentine is very high, it was sold in the city at seventy cents gallon in barrel lots. High prices will likely rule for some time.

## English Market Report.

Lonnow, Dec. 2Gth, iSgS.
During the month Camphor has advanced and leading chemicals are very firm. Copper sulphate is dearer and Borax and Boric acid slightly advanced. Cinchona bark is also on the up-grade, but has not yet reacted upon Quibine.

The mild weather has had a depressing effect on Cod Liver Oil, Ipecac, Giscerine, and other winter staples. Belladonna root is still dear. but Gentian is easier. Cocaine is talked higher, but manufacturcts are uncertain about the future as regards Eucaine, Orihoform, cic. Permanganate of potassium is very low. Sulphonal is firm at recent advance. Arsenic is casier.

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## Druggists

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[^0]:    
    
    
    
    
    dax These Pastilles, which were brought out for :he benefit of the Liverpool iospatal tor Diseases of the fhroat, Nose and Ear. have have already met with a veiy large sale, both at home and abroad, owing io their minmsic metit The procecds from the sale are largely devoted to the funds of thai institution.

[^1]:    - Read before the American Pbarmafeusical Associa. sion.

[^2]:    All Whulexale Druggists keep in stock and will supply retail druggists with
    Wood's Phosphodinc, Retrils $\$ 1$.
    Cook's Cotion Root Compound. No. 1, Rotalls \$i. Cook's Cotton Root Compound, No. 2, Retalls \$8.
    Many retail drugeists sell dozens of thene goods white wibts only sell a few bones, The reason for these watiationsinsales are that one orders from his jobber in not less quantily :han une dozen Wood's Phosphodine, one doren Cook's Cotson Roos Compurnd Vo. z, and 2 hall dozen Ccok's Cution Koot Compound No. a, and places the dozen carions on bis show case where they can be seen and ex. amined by customert. The otherorders a few boxes and hides them in 2 drawer behind bis culnter where 2 hey
    canot beseen, or what is still worce, waits until 2 cus tomer ashsfur the goedsand then arderx a box of two; thus one diusgive selts many dozens, the other a few boxes or none 91 all. Theue goods all afford a liveral profit so the retailer, and are libernlly adiertised in nsarly alt papers from Cape ifreson to llritish Culumbia. No retail druggist can make a mastake in ordering from his jobler at least one dozen cach of these soods and placing, them on his show ease where ihey can be seen. Drugiciss who have only purchased a lew boxes and placed them in a Jrawer behiod sheir counter will, by purchaving in quantity and placing where they can be srent le aurprised how quichly shey will be sold. There is only one iens se seil
    

    THE OLDEST
    THEBEST

[^3]:    Chloride of lime....... ..

    | Bicarbonate of soda............ | 11 |
    | :--- | ---: |
    | Carts |  |
    | Carbonate of soda (crystaik). | 13 |

    

