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- Pharmaceutical Society of Ireland.
- Chemists' and Druggists' Society of Ireland.
- Pharmaceutical Chemists' and Apothecaries' Assistants' Association of Ireland.
- South African Pharmaceutical Association.
- Pharmaceutical Society of Natal.
- Pharmaceutical Society of the South African Republic.
- Central Pharmaceutical Association of N.Z.
- Otago Pharmaceutical Association, N.Z.
- Pharmaceutical Society of Queensland.
- Pharmaceutical Society of South Australia.
- Pharmaceutical Society of Tasmania.
- Pharmaceutical Society of Western Australia.

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EXPORT TRADE.

THE increased interest in export trade gives our annual Export Merchant Shippers' Issue special importance this year to manufacturing and wholesale houses who are desirous of extending their business in the British Empire and in foreign countries. The issue will be on March 12. In addition to the regular issue of THE CHEMIST AND DRUGGIST to its subscribers throughout Europe, Asia, Africa, India, America, and Australasia, copies will be sent to all firms in the United Kingdom who have exported any kind of druggists' goods during the past year. Hundreds of merchants file the copy for reference when filling indents, which is the advertisers' opportunity. Those who deal in drugs, chemicals, perfumery, paints, varnishes, aerated water plant, bottles, and druggists' sundries of all kinds should not miss it. For further particulars apply to the publisher.



THE CULTIVATION of Jamaica ginger is described in detail on p. 352.

A NEW CHEMISTS' ASSOCIATION has been organised at Scarborough (p. 340).

A CONTRIBUTOR describes the conditions under which the best East Indian kino is produced (p. 355).

THE EASTMAN COMPANY have succeeded in their objection to the use of the term Kodak by a cycle company (p. 345).

PROFESSOR CASPARI describes in a note on p. 357, what should be done when antipyrin is prescribed with spt. ather. nit.

IN his paper on formaldehyde Mr. Roe describes how it may be most usefully employed for pharmaceutical purposes (p. 356.)

WE comment on p. 352, upon the present position of the cod-liver-oil market, which is interesting owing to the delay in the fisheries.

A CHEMIST'S ASSISTANT at Stroud supplied carbolic oil 1 in 2, in mistake for 1 in 20, and the chemist has had to pay 40l. (p. 342).

DR. WYNN WESTCOTT told a jury at Shoreditch that a chemist's business was to sell drugs and patent medicines—not prescribe (p. 333).

A CATTLE-SPICE MAKER, who described himself as a "veterinarian," has been fined by Magistrates under the Veterinary Surgeons Act (p. 343).

MR. OCKENDEN reports the results of the examination of a number of eucalyptus oils, which show that the price is not an invariable guide to the eucalyptol content (p. 366).

THE INSTITUTE OF CHEMISTRY is prepared to certify the competence of candidates for the appointment of public analyst. The scope of the examination is indicated on p. 354.

THE HON. W. F. D. SMITH has been induced to take charge of the Pharmacy Bill. Active support of the Bill is reported from Birmingham, Bradford, and Glasgow (p. 348).

A LECTURE ON ANCIENT DRINK-CURES, by Dr. W. L. Brown, gives a number of interesting and little-known facts which show how little we have advanced on our ancestors (p. 361).

DR. W. P. WYNNE, F.R.S., is proposed as honorary secretary of the Chemical Society, in succession to Professor J. M. Thompson, F.R.S., who has filled the position for many years (p. 337).

SIR HOWARD VINCENT will bring before the Chancellor of the Exchequer the request for a countervailing duty on foreign alcoholic extracts which has been advocated in this journal (p. 342).

THE EDINBURGH TRADE ASSOCIATION have discussed the new methylated spirit, which is objectionable in many respects, and, it is believed, has not disgusted the habitual drinkers (p. 338).

THE LITTLEHAMPTON URBAN COUNCIL find they went too far in resolving to revoke the licence of a bathing-machine owner who had painted an advertisement of Holloway's pills on his machines (p. 344).

WE PRINT on p. 233 an interesting paper, read before the Irish Pharmacists' Assistants' Association by Mr. Hunt, on "Photography," with a portrait, showing that it does not necessarily require costly apparatus to produce good results.

THE COUNCIL OF THE CHEMICAL SOCIETY have obtained counsel's opinion to the effect that it is extremely improbable that a supplementary charter, to enable voting for Council to be given by proxy, would be granted if there any opposition (p. 337).



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

REPORTS.

THE subject of the last exercise was a mixture of 1 part of ammonio-ferrous sulphate, 1 part of calcium phosphate, and 2 parts of magnesium carbonate.

The calculated composition of this mixture was:—

Fe	3.57
Ca	9.68
Mg	12.57
NH ₄	2.29
SO ₄	12.25
P ₂ O ₅	15.32
CO ₂	23.56
O	2.09
H ₂ O	18.67
	<hr/>
	100.00

Samples of the powder were sent to 77 applicants, and fifty reports were received in reply. Nearly half of the reports show correct work, a satisfactory result considering the composition of the mixture. The failures in the detection of the several constituents were:—Calcium, 21; phosphoric acid, 6; iron, magnesium, and ammonium, 4 each; sulphuric and carbonic acid, 3 each.

The one difficulty in this exercise arose from the presence of a salt of calcium soluble only in acid solutions, and which was precipitated in its original state when the acid solution of the powder was made alkaline by the addition of ammonia. In the case of certain insoluble salts of the alkali earth-metals no such difficulty arises. The carbonates, for example, when treated with an acid for the purpose of obtaining a solution, are decomposed, so that it is not possible to recover the original salt, by adding an alkali to the acid solution. With such salts as the phosphates or oxalates the case is different; both the constituents of the salt remain in solution so long as it is acid. When the acid is neutralised the liquid no longer possesses the power of holding the constituents in solution, the salt is therefore precipitated in its original form. It is obvious that this behaviour of such salts as the phosphate or oxalate of calcium will have the effect of interfering seriously with the ordinary methods of separation adopted in qualitative analysis. The practice is to make the acid solution, which has been treated with sulphuretted hydrogen alkaline, so as to remove iron, aluminium, and chromium in the form of hydroxides. If calcium phosphate is present it must necessarily be precipitated along with these hydroxides. This is what occurred in the present exercise. The calcium was precipitated along with the iron, and thus escaped detection. The course to be adopted in a case of the kind is to remove the acid radicle. If the acid is an organic one it is removed by ignition; if the phosphoric radicle is present the best plan is to remove it in the form of ferric phosphates. Students must refer to their text-books for details of the method to be adopted. They should on no account attempt to carry out the method with a substance of unknown composition, until by practice with preparations of known composition, the conditions to be observed have been fully studied. It must be remembered that ferric phosphate cannot be precipitated in the presence of a free mineral

acid, hence the use of an acetate, the metallic constituent of which combines with the free mineral acid, free acetic acid being liberated instead. The quantity of acetate employed must be sufficient to completely effect this transposition, as well as to precipitate the excess of iron in the form of basic acetate when the solution is boiled. It is necessary, too, to employ a sufficiency of ferric chloride, otherwise all the phosphoric acid will not be removed. It will be found on actual trial that there are no difficulties in the method which cannot be overcome by ordinary intelligence and skill.

PRIZES.

The First Prize for the best analysis has been awarded to CLAUD I. PACKHAM, 16 Katharine Street, Croydon.

The Second Prize has been awarded to HENRY J. HENDERSON, 31 Acton Street, Gray's Inn Road, W.C.

MARKS AWARDED FOR ANALYSES.

C. I. Packham (1st prize)	100	Ctenophora... ..	81
H. J. Henderson (2nd prize)	99	Vanillin	80
Van de Burke	98	R. Graham	80
Parmelia	98	A. R. J.	80
Sepia	97	Huxham	79
H. W. H.	97	D. J.	78
Acetylene	97	Hinsley	76
A. E. Burton	97	W. S.	75
Lyra	96	G. Platt	75
S. V. R.	96	Algol... ..	72
Africanus	95	Methodical... ..	63
R. Pickup	95	J. A. Goode... ..	60
Pereine	95	J. Murdoch	59
T. H. H. Francis	94	Sunshine	58
Lux	94	B. G. W.	56
W. H. Hurn	94	Osmium	55
A. J. B.	94	Turps	54
Hydragryrum	93	Tredecim	50
Hypo.	92	E. T. Y.	47
L. R. D.	91	H. C. B. S.	40
L. J. C.	90	C. H. D.	35
Nemo	90	Omega	30
Demosthenes	90	Eugenol	25
Dover	85	L. M. B.	15
A. Crossley	83	Second Attempt	0

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as a second prize.

A special prize, consisting of Mendeléef's "Chemistry" (2 vols.) and a certificate of honour, will be awarded to the student who obtains most marks in the six months ending April, 1898. Second and third prizes may also be given.

Note.—All communications should include the names and addresses of the writers.

DEMOSTHENES.—Without making a quantitative analysis you could not of course tell how much iron was present, but there were several indications that the quantity was greater than any ordinary accidental impurity would account for.

DOVER.—The flame-colouration of the original powder pointed almost unmistakably to calcium.

A. CROSSLEY.—The solution through which you had passed sulphuretted hydrogen should not be discarded when the supply of material at your disposal is so limited. The cause of your failure to detect calcium is not clear, you should repeat the work with a similar mixture of your own preparation.

CTENOPHORA.—Your work was hurried through too mechanically. The precipitate you obtained on adding ammonia to the acid solution of the powder did not look like a precipitate of ferric hydroxide, yet you found nothing but iron in it.

R. GRAHAM.—See remarks to "Ctenophora."

VANILLIN.—There was not nearly enough iron in the powder to combine with all the phosphoric radicle, therefore you should have obtained a precipitate when you added ferric chloride, provided the only free acid present was acetic acid.

A. R. J.—When the powder, moistened with hydrochloric acid, was ignited in the Bunsen flame, a brick-red colour was imparted to the flame; none of the metals you detected would account for this.

HUXHAM.—Your difficulty about the colour of the powder is easily cleared up. When you boiled the powder with water the iron was converted into hydroxide, and a corresponding quantity of magnesium into sulphate. This reaction caused a change in the colour of the insoluble part.

D. J.—The method you adopted, if properly carried out, would have given correct results. You probably used too little ferric chloride to precipitate all the phosphoric radicle.

HINSLEY.—A different method was required in the presence of a salt of the alkali earth metals soluble only in acid solutions. The filtrate for ammonium carbonate should have been tested for magnesium by adding sodium phosphate, before you evaporated the solution to dryness.

W. S.—The precipitate you mistook for aluminium hydroxide consisted of calcium phosphate.

G. PLATT.—In most cases the ammonia was detected on heating the powder in a dry tube. Boiling with a caustic alkali is a very rough way of detecting ammonia, there is too much water present to admit of small quantities of ammonia being readily evolved, ammonia being extremely soluble in water.

ALGOL.—You omit details of the most critical part of your work. It would appear that you did not boil the solution to which you added ferric chloride; the boiling completely removes the iron, partly as phosphate, and partly as basic acetate. The solution which you tested for magnesium must surely have been acid. We cannot suggest any other explanation, such a large quantity of magnesium being present.

METHODICAL.—Your errors arose from the use of an unsuitable method. Probably Attfield's "Chemistry" will suit you best; when you are more advanced in practical work you will find Fresenius's "Qualitative Analysis" a good text-book.

A. J. GOODE.—The flame-colouration was due mainly to calcium. When there is no appreciable residue left on removing all except the alkali metals, the usual spectroscopic traces of sodium may be discarded.

J. MURDOCH.—In testing for a phosphate with ammonium molybdate you must have neglected the precaution of adding the solution to be tested to the reagent, so as to ensure an excess of the latter. If you try the experiment you will find that a certain excess of molybdate is required, or the ammonium phosphomolybdate will not crystallise out.

SUNSHINE.—See remarks to "Huxham." The effervescence produced when the powder was treated with an acid should not have escaped observation.

B. G. W.—The unenviable distinction of having failed in the detection of the carbonate is reserved to you and another student in the same town.

OSMIUM.—Ignition with a cobalt salt gives the same colour with calcium phosphate as with alumina.

TURPS.—Your report did not bear your name and address. It was not possible to add a solution of barium chloride to a solution of the powder without obtaining a precipitate insoluble in acids; you must have used some other reagent.

TREDECIM.—You should use the ammonium-molybdate test for phosphoric acid; it has the great advantage of being applicable to an acid solution.

E. T. Y.—It seems from your report that you concluded magnesium to be absent because ammonia gave no precipitate in a solution which must have contained that metal. You overlook the fact that ammonium salts were present. Sodium phosphate was the proper reagent to employ.

H. C. B. S.—The presence of a phosphate along with iron and calcium necessitated the use of a special method of analysis.

C. H. D.—See remarks to "H. C. B. S." The precipitate you obtained on adding ammonia to the acid solution of the powder consisted of calcium phosphate, with a small quantity of ferric phosphate.

OMEGA.—Your examination for the acids was very incomplete; it did not include any test that would detect a phosphate. See remarks to "H. C. B. S."

EUGENOL.—Having found that the powder was insoluble in water, and that it contained a phosphate, you should have removed the phosphoric radicle, in the form of ferric phosphate, in the presence of free acetic acid. The resulting acetic-acid solution contained the calcium in a form admitting of its detection by ordinary methods.

L. M. B.—A mixture consisting of the salts you detected would have dissolved readily in water; the mixture you examined was not soluble in water. See remarks to "Methodical."

SECOND ATTEMPT.—Your report does not bear your name and address, and there is nothing to show that it relates to this exercise. Unless you are prepared to take a great deal more trouble with your work you will never make much progress in analytical chemistry.



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The Chemist and his Cough-mixture.

The Derby Coroner (Mr. John Close) held an inquiry, on February 17, into the cause of the death on the previous Sunday of Mrs. Elizabeth Stevens, aged 76. At the preliminary inquiry it was stated that the deceased did not believe in doctors, and when she was taken ill her daughter-in-law sent to Mr. C. W. Booth, chemist, of Osmaston Road, for sixpennyworth of cough-mixture. She had considerable faith in this remedy, but it failed to revive her, and when Dr. Gibbons was called in he found the deceased under the influence of some narcotic. He ascertained that she had taken some cough-mixture, found that this contained morphia, and gave it as his opinion that this greatly accelerated the woman's death. The Coroner, therefore, adjourned the inquest for a *post-mortem* examination of the body, and at the resumed inquest Mr. Booth gave evidence. He said he was a fully-qualified chemist. He identified the remainder of a bottle of cough-mixture as that obtained from him, and stated it was made up by him from his own prescription. He objected to name the contents of the mixture on the ground that it was his private formula and he did not want it to become public property, but at the Coroner's request he wrote out the formula and handed it to him. The foreman of the jury intimated that the jury wanted to know the contents of the mixture, but Mr. Booth objected to hand them the names of the ingredients. The Coroner, however, ordered Mr. Booth to do so, and told him that he would protect his interests as far as he was able, and requested the press not to publish the formula. Continuing his evidence Mr. Booth admitted there was a certain amount of poison in the mixture. In the 2 oz. he sold to Miss Stevens there would be about 40 min. of solution of morphia and 2 dr. of compound tincture of camphor. He could not say how much of the two ingredients named it would take to kill a person; that depended upon the constitution. But he did not think there was enough in the mixture to kill anyone. He made one sort for adults and another for children, but he gave no directions as to how often it should be taken—he left that to the discretion of the patient. The label stated "Dose—for adults, one teaspoonful." He did not think the mixture, taken at intervals, would harm an old feeble woman like the deceased. If a healthy person took the whole of the contents of the bottle it would not kill him, but it might prove fatal if an old woman like the deceased took it all at once. He sold the stuff to any person who wanted it, but he did not enter the sale in any book—it was not necessary. He did not think the mixture was dangerous to take, but if the doctor said that Mrs. Stevens's death had been hastened by taking it, he would then think it dangerous. Assuming that the woman was suffering from Bright's disease, heart-disease, and disease of the blood-vessels, he could not say that it would kill her, but it might be dangerous. When the stuff was purchased from him he did not inquire about the patient's illness, as he had not time. Mr. Close: Then a person's life is not worth much? Witness: Oh, yes. In reply to a jurymen, he said he left it

to people's own discretion at what times to take the mixture. It was not customary to put the times on the labels. Another jurymen asked witness why he did not state on the labels that the same quantity should not be given to children as adults, and he replied, "I cannot help it." The Coroner: But you can. A Jurymen: You ought to. Mr. Booth added that he did not put morphia into the children's mixture. Dr. Gibbons gave the result of his *post-mortem* examination, and after stating that the deceased had suffered from a complication of ailments, he said death was due to pneumonia, accelerated by the morphia and opium in the cough-mixture. The woman had evidently taken just under $\frac{1}{2}$ gr. of opium and $\frac{1}{2}$ gr. of morphia. It was a most improper mixture for the deceased, and he had not the slightest doubt it assisted to bring about Mrs. Stevens's death. The jury said they thought Dr. Gibbons had given his evidence with all possible prudence and caution. Eventually the Coroner adjourned the inquest until March 2 for an analytical examination.

Chemists' Casks on the Footway.

At the Thornbury Petty Sessions, on February 16, Mr. James Spencer Palmer, chemist and druggist, Thornbury, was summoned by the police for obstructing the footway outside his shop by placing thereon two barrels, and allowing them to remain there for two hours, without just cause. Defendant explained that the barrels contained drugs, which he wished to unpack himself, and while doing so he was called to attend to a customer. There had been no unnecessary delay in the removal of the casks. The Bench dismissed the case.

Fatal Accident to a Chemist's Son.

A fatal accident occurred on February 15 to the son of Mr. Beaufoy, chemist and subpostmaster, Victoria Street, Coventry. While riding a bicycle in Hall Street he was thrown from his machine and a heavily-laden cart passed over his body, inflicting severe internal injuries, from which he died shortly after being admitted to the hospital.

Liniment for Consolation.

At Cheltenham Police Court, on February 16, a man was charged with attempted suicide by taking poison. From the evidence it appears that an engagement between the accused and his sweetheart had been broken off, in consequence of which he had tried beer and what appeared to have been camphorated oil to drown his disappointment. He was found in a stupid and confused state after threatening to commit suicide, and a doctor and the police were called in. Mr. George Embrey, F.C.S., stated that a bottle which was found in accused's possession contained $2\frac{1}{2}$ dr. of yellowish milky fluid, consisting of olive oil, camphor, spirit of wine, and a vegetable alkaloid, which appeared to be aconitine, but that the vegetable alkaloid was too small to estimate. The preparation followed very closely two in the British Pharmacopœia, and was very commonly employed for outward application in cases of neuralgia and nervous pain. Further evidence led the Magistrates to the conclusion that the beer was in excess of the liniment, however, and the prisoner was dismissed.

Photographic Exhibition.

The date of opening of the Photographic Exhibition, to be held at the Crystal Palace, is fixed for Monday, April 25, instead of April 27, as previously arranged. H.R.H. the Prince of Wales will perform the opening ceremony.

New Photographic Society.

A Photographic Society has just been founded at Hyde (Cheshire). The first meeting was held on February 15, in a room placed at the disposal of the Society by Mr. Richard Swindells, chemist, Market Street. There was a good muster, and the Society has a very promising future.

Suicide by Ammonia.

A widow named Simister died at Hyde, Cheshire, on February 17, from the effects of drinking ammonia. The deceased purchased 3 oz. of liquid ammonia from Messrs. Swindells Brothers, chemists, Market Street, and appears to

have drunk it while suffering from a fit of depression. The poison was taken on Tuesday, deceased lingering on till the following Thursday.

Adulteration in Middlesex.

according to the last quarterly return of the county analyst, is not so extensive as it was by a good deal, but it is still peculiar. Malt liquors, it would seem, are pure, so also is castor oil; chlorodyne, too, is all right, and so are lozenges; nothing was sampled amiss in cheese or "gold cigarettes"; whilst mushroom ketchup, port wine, saveloys, and tapioca are really what they are described as being. The analyst takes a view of the cough-drop which is not very generally shared, and the three incriminated samples of milk out of the 226 samples submitted will not be likely to diminish the number of the consumers of this favourite secretion. The sophisticator appears to have principally turned his attention to corn-flour, gin, Demerara sugar, and compound rhubarb-pills, all of which, it is stated, failed to pass the test. The articles of consumption most in vogue in Middlesex are clearly indicated.—*Pall Mall Gazette*.

The Coroner and Carbolic Acid.

William Henry Jones (48), a chairmaker, of Walthamstow had been worried by business and other troubles, and therefore took carbolic acid, and died. The Coroner (Dr. Ambrose), at the inquest last week, said some restriction ought to be placed on the sale of carbolic acid. At present a person could purchase enough of it to poison a regiment without any trouble.

Sulphur-poisoning.

A man has just died at Leeds from inhaling sulphurous fumes under exceptional circumstances. In the process of bleaching blankets they are "stoved" with sulphur, the blankets being hung up in a chamber in which sulphur is burned. In the case just mentioned, 35 lbs. of sulphur had been lit in the stoving-chamber when a workman accidentally got imprisoned, he not being able to escape owing to the circumstance that the doors of the chamber fastened on the outside. The man was not missed for four hours, and when released, exhibited great mental excitement and physical exhaustion, with rapid and irregular action of the heart. Bronchitis followed pneumonia, of which the man died, nine days after his fearful experience.

Liquids by Post.

It is intimated from the General Post Office that

on and after March 1 next articles of the undermentioned classes will be transmissible by letter-post within the United Kingdom, under certain conditions: Glass, liquids, grease, and colouring-powders. Nothing inflammable, corrosive, or explosive may be sent, nor anything having an odour so strong as to affect the contents of other packets in the mails; no article liable to Customs duty may be sent by letter-post to or from the Channel Islands or the Isle of Man, and certain specified regulations as to packing must be complied with. The public are asked to note that, although articles of the classes named are admitted to the inland letter-post, they can in all cases be sent more safely by parcel-post. The articles mentioned will also be transmissible by sample-post under special conditions between the United Kingdom and other countries where they are admitted.

This concession has, we understand, been made in consequence of the representations of the Chemical Section of the London Chamber of Commerce.

Chemists Prescribing.

An inquest was held on February 17 at Reading, on the body of a hay-cutter, whose widow said that her husband had had a cough for several years, and on Monday complained of a pain in the stomach. She got some physic for him from a chemist on Tuesday, when he went to bed, and a short time afterwards she found that he was dead. Dr. A. M. Balford said the drug given by the chemist was a dangerous one when the patient was suffering from a weak or diseased heart, but if the heart was sound the drug would not cause death. He said that the chemist was a capable and careful man, but no one was justified in giving the drug (salicylate of soda) without first examining the heart. In this case syncope was probably the cause of death. A verdict of death from syncope was returned.

Fire at Chemist's Shop.

An outbreak of fire occurred, on February 15, at the shop of Mr. Whitby, chemist, 102 Abbey Street, Acerington. The fire, which had originated in the cellar, was extinguished before the arrival of the fire-brigade, and before much damage was done.

Chemists at Football.

The Westminster College Football Club beat the South London School of Pharmacy Club on Saturday last by 4 goals to 3.

The Pharmaceutical F.C. will play the Bloomsbury Club at Wormholt Farm, Shepherd's Bush, on Saturday, February 26. Kick off at 3 P.M.

Eighteen Shillings and a Cigar.

Late on Sunday night the branch shop of Mr. H. J. Willis, chemist and druggist, Gillingham Road, New Brompton, Kent, was visited by burglars. Mr. Lichfield, the manager, was absent at the time. The visitors, who apparently knew the premises, forced open the desk and abstracted a box containing eighteen shillings in silver. A cigar was likewise purloined from a case.

Faith in Paraffin Oil.

John Richard Grimdage, of Canning Town, had been ailing for some time. He declined to see a medical man, but doctored himself by rubbing the affected parts with paraffin oil, a treatment he had followed for years. He died, and at the inquest a verdict of death from syncope was returned.

Drugs in Wiltshire.

In his report to Wiltshire County Council the public analyst (Professor Munroe) states that amongst the fifty-seven samples he has analysed under the Sale of Food and Drugs Act during the past six weeks were two of cinnamon and one of mace, four of quinine-wine, two of linseed-meal, three of spirit of camphor, two of tartaric acid, and two of seidlitz-powders. All the samples of quinine-wine were adulterated with salicylic acid, which had been added as a preservative. In three of the cases this addition was made to counteract the deficiency in alcohol, the orange-wine directed in the British Pharmacopœia to be used in the preparation having been omitted and the mixture sweetened and flavoured to resemble it. The other samples of drugs were genuine. Dr. Bernard Dyer, the new county analyst, in the report for the rest of the quarter, states that amongst other articles he has analysed two samples of preserved peas, one of arrowroot, one of ginger, one of pimento, two of olive oil, one of ginger-wine, four of liquorice, one of glycerine, one of orange-quinine, one of tincture of rhubarb, two of tartaric acid, one of citric acid, and eight of chlorodyne lozenges. One of the samples of olive oil consisted almost entirely of refined cotton-seed oil; one of the samples of liquorice contained an admixture of 25 per cent. of wheaten flour and about 10 per cent. of gelatine; and of the chlorodyne lozenges two samples contained no appreciable quantity of chlorodyne. With these exceptions all the samples of drugs were genuine.

Hospital Drug-bills.

Bromley (Kent) Cottage-hospital last year purchased drugs, chemicals, and disinfectants amounting to 69*l.* 16*s.* 1*d.*, instruments and appliances worth 70*l.* 0*s.* 7*d.*, and wines and spirits for medicinal purposes costing 19*l.* 4*s.* 2*d.*. At Evesham Cottage-hospital the bill for medicines, drugs, and surgical-appliances amounted to 18*l.*; and at Grantham Hospital 264*l.* 14*s.* 5*d.* was spent in the medicinal department.

Medical Officers and Water-analysis.

The East Ashford Guardians wrote to the Local Government Board inquiring what were the District Medical Officer of Health's duties respecting the analysis of samples of water, and have received a reply stating that medical officers of health are required to inform themselves, as far as practicable, respecting all influences affecting or threatening to affect injuriously the public health within their respective districts. From this it may properly be inferred that a medical officer of health should make himself acquainted with the character of the water-supply in his district, and in doing

so the Board consider that he will not only have to observe the physical conditions and surroundings of the wells or other sources of water-supply, but also be prepared to use, when needful, the ordinary chemical tests of the purity, or otherwise, of the water. The Board also consider that the local authorities may call upon their medical officers for reports, without additional remuneration, and unless the terms of appointment provide for such; but they say it forms no part of the duty of a medical officer of health to make a quantitative analysis of water.

Cashing a Cheque.

At Reading Police Court, on February 19, a man was charged with stealing a cheque, value 9*l.* 4*s.* 6*d.*, and with attempting to commit suicide. Mr. G. W. Harrison, chemist and druggist, Cross Street, Reading, stated that on February 4 prisoner entered his shop and purchased articles amounting in value to 6*s.* 7*d.* In payment he tendered the cheque produced, and asked for balance in cash, explaining that the bank was closed. Not knowing him Mr. Harrison declined to cash the cheque, but prisoner left it on deposit in order that Mr. Harrison might send it to the bank next day. Prisoner was given a receipt for it, and allowed to take the goods purchased. The cheque was cashed by Mr. Harrison next day, and later on prisoner called and received the change. Other evidence showed that the cheque belonged to accused's father. After being taken into custody prisoner asked for a cup of water, and in this he placed some white-precipitate powder. Prisoner was committed for trial on both charges.

A Coroner on Patent Medicines.

Dr. W. Wynn Westcott held an inquiry on February 22, at Shoreditch, respecting the death of Emma Pulfer, a child of 4 years and 9 months of age. The mother stated that the child appeared to have a cold on the previous Friday, and her husband went to Mr. Harris, a chemist in East Road, who gave him a bottle of medicine for the child. In reply to the Coroner, witness said she had previously obtained cooling-powders from the chemist, and they had done her children good. Continuing, witness said that, as the child did not get better, she sent for Dr. Dixon, but death occurred shortly after. The father of the child was the next witness, and said he asked the chemist what was best to give the child, as he could not go and ask for a certain medicine, not himself knowing what was best to give. The Coroner: If you are unable to decide what is the proper medicine, you ought to go to a doctor and let him choose for you. A chemist is a gentleman who has a certificate to sell drugs or patent medicines; he is trained how to mix drugs and medicines, but he is not the proper person to go to if you want advice. Dr. Dixon, who was called in, said death was due to syncope from stoppage of the heart's action, due to the collection of fluid round the heart. Mr. G. W. Harris, chemist, 78 East Road, Hoxton, was called, and said he sold a little simple medicine for a cold, and thought he was within his rights in selling a thing he had ready put-up. Similar preparations were advertised in nearly all the newspapers in the country. The Coroner said that if every advertisement for patent medicine was torn up, and never another printed, it would be a good thing for the world in general. The jury returned a verdict of natural death.

After the Mice.

On February 22 a crowd had collected round the shop-window of Mr. John Ellis, Wellington Road, Leeds, to watch the live-mice advertisement of the Paradox rat-charmer. The crush was so great that a boy's head was pushed through and a pane smashed to atoms, but the boy escaped unhurt.

A NEW College of Science is about to be established in Dublin.

SULPHATE OF COPPER.

Deep blue like to the Southern sky,
Prismatic crystals charm the eye,
Changing, if heated in a manner proper,
To powder white, proving sulphate of copper.

T. HAMILTON NAYLOR, Ph.C. (London)
Heathcote, Victoria.



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The L.G.B. and the Guardians.

The question of the supply of goods from Hamill's Medical Hall, Drogheda, has again come before the local Guardians. The L.G.B. called attention to the fact that a penalty is incurred by a paid officer of the Union supplying goods thereto. The Chairman said it was Dr. Hamill's brother who supplied the articles. He declined to say whether the contractor was a licensed apothecary. Dr. Hamill did not himself supply to the Union, although the bills were headed "Hamill's Medical Hall," nor was he the owner of the place, so far as was known. The Local Government Board was answered accordingly.

The Local Government Board has written to the Waterford Board of Guardians pointing out that "Bovine" is a food and not a medicine, and that if procured by the medical officers of the Union it must not be treated as a drug.

Come to Stay.

The premises at Market Street, Lurgan, lately occupied by Mr. Joseph Calvert, chemist and druggist, and an adjoining house, have been purchased by the Ulster Chemists (Limited), by public auction, for the sum of 1,850*l.* The newly-acquired premises are held for a term of 10,000 years from May 1, 1894, at the annual rent of 37*l.* The "lot" was put up at 1,200*l.*, and there were five bidders.

Personal.

The Newcastle West Guardians have appointed Mr. J. B. Morris, L.P.S.L., compounder of medicine for the Union at 50*l.* a year.

D.P.H. for D.S.M.

The designation of Diplomat in State Medicine, or D.S.M., being inconvenient to licentiates seeking appointments in England and elsewhere on account of existing law, has been changed by the Conjoined Colleges of Ireland to that of Diplomat in Public Health, with the abbreviation D.P.H.

Business Changes.

Mr. Samuel Knaggs, chemist and druggist, Capel Street, Dublin, has removed to more spacious premises at 145 Thomas Street.

At Belfast, on Saturday last, the fixtures and stock of the premises 120 Royal Avenue, Belfast, were sold by auction by direction of Mr. P. J. Lyons, pharmaceutical chemist.

The Dublin Combine.

There has been a slip 'twixt the cup and the lip in regard to the proposed new drug combination in Dublin. The hitch is said to be due to the "cussedness" of one of the promoters, who at the eleventh hour expressed his unwillingness to "stand in." It is probable that not enough good pharmacists could be detached from their loyalty to the profession to give the affair a respectable appearance.

Singular Fatalities.

Dr. James Aherne, dispensary officer at Milford, wired last week to his brother Patrick, also a doctor, that he was very ill. The latter on receiving the telegram fell dead, and on the news being communicated to his brother he also expired.

The Middleman.

The Cork Corporation object to a Mr. W. H. Humby supplying oil and Jeyes' fluid on the ground that he is an employé of Mr. Bible, drug and chemical merchant, a member of the Board. They protest against the contract

and declare it illegal. Mr. J. O'Donnell, one of the Board, wondered if the oil was "palm" oil, and asserted that the goods came from Mr. Bible's place. The Town Clerk said Mr. Humby was entitled to payment for the goods supplied, but Mr. Bible incurred a penalty. The matter dropped.



Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

The "Aluminium-tincture" Case.

A German, named Cornelius de Vries, who stated that he was a traveller, was brought before the Dundee Police Magistrate on February 16, and charged with defrauding the public by selling as "aluminium tincture" a preparation of nitric acid, mercury, and bichromate of potash. From the evidence it appears that, on the pretence of being an agent for the firm of De Vries, he had induced Mr. Charles Kerr, pharmaceutical chemist, Nethergate, to purchase a dozen bottles of a preparation purporting to be a tincture containing aluminium, and which was for treating brass and other metals, so as to give them a coating of aluminium. After a remand, De Vries was remitted to the Sheriff. We learn that various hardware-merchants in the town had been defrauded by De Vries in like manner, and complaint had been made by them, of which no notice was taken by the police. It was not until the victimised chemist explained matters that action was taken.

French News.

(From our Paris Correspondent.)

THE LECTURES ON PHARMACEUTICAL LEGISLATION that are being given this winter at the Paris School of Pharmacy every Tuesday, at 11 A.M., appear to be very successful, and are well attended. M. Paul Coutant, the barrister who has taken charge of these lectures, is treating the whole gamut of questions relating to pharmacy, and it would not be surprising to find that one result of the course may be to accelerate the passing of the long-delayed new law for French pharmacy.

NEW FRENCH HOMŒOPATHIC PHARMACOPEIA—Messrs. J. B. Ballière & Fils, the well-known Paris publishers, have just published a new French Homœopathic Pharmacopœia. The book is edited by three Paris pharmacists, who were assisted by two physicians, and it is issued under the patronage of the Medical Society of French Homœopathy. The book conforms absolutely with Hahnemann's indications, though such new products as antipyrine, caffeine, chloral, digitaline, &c., have been added.

MRS. AYER'S WILL.—The will of the late Mrs. Ayer, widow of James C. Ayer, the famous American patent-medicine manufacturer, has been proved at \$3,000,000 (600,000*l.*). The will is dated Paris, November 25, 1895, and among the legacies are 20,000*l.* to the Ayer Home for Women and Children, Lowell, and 10,000*l.* for the Pennsylvania Hospital, Philadelphia. Mrs. Ayer left the bulk of her property to her daughter (Mrs. Leslie J. Pearson, Newport) and her son (Frederick F. Ayer). The latter is appointed executor. About two-thirds of the fortune are invested in houses and land, while there is also a private art gallery.

"TREATISE OF MICROBIOLOGY" is the title of a new work by M. Duclaux, the director of the Pasteur Institute. It will comprise three volumes, and the first, having "General Microbiology" as its title, has just appeared. Volume II. will

consist of a study of diastases, poisonous substances, and viruses; while the third will treat especially of alcoholic and other fermentations. The first volume is divided into forty chapters. The author commences by a kind of history of the action of ferments, and of the different interpretations of these phenomena since antiquity. Pasteur's work and theory are also developed. At the end of each chapter is a notice of the published works having reference to the subject treated, which is in itself very interesting.

MINERAL-WATER LITIGATION.—The Vichy Mineral Water Company have frequently been in litigation with owners of wells in the neighbourhood of Vichy in regard to supposed infringements of trade-marks, labels, name, &c. These cases have generally gone against the company, principally for the reason that the name of a locality cannot constitute a private property. A lawsuit of similar character was recently heard in Paris, the plaintiffs being the Société des Eaux d'Evian, who brought an action against a Paris mineral-water dealer for infringement. It having been proved that there had been no attempt by the defendant to imitate the plaintiff company's labels or bottles, judgment was given in his favour. A curious part of the case was that the company had all the mineral water in the defendant's shop seized at the commencement of the proceedings. The latter claimed 20,000f. damages for what appears to have been an arbitrary measure, but the Judge merely allowed him his costs in the action.

A PROVINCIAL DISPENSARY.—A friend writes me from Caen that a competition was held there last week for the post of pharmacist to the dispensary of that town. There were five competitors, and a M. Guillouet was elected, at a salary of 3,000f. (120l.) per annum. Before he was nominated a discussion took place amongst the Municipal Councillors as to whether it was advisable to maintain the pharmacy in connection with the dispensary, or whether it would not be more advantageous to supply indigent patients with prescriptions, which they could have filled by the pharmacist nearest to their homes, who would be repaid by the public relief office. It was shown that this was the course pursued up to 1890, but since then the dispensary had possessed its own pharmacy and pharmacist. It was stated that under the existing arrangements the average number of prescriptions made up is 9,000 per annum, or about 1,500 less than was the case previous to 1890. The cost, too, has fallen from 1f. 34c. to 84c. per prescription, so that the town makes a double economy. The dispensary-pharmacy was organised as the result of certain scandals that occurred about ten years ago, when it was discovered that an illicit traffic was going on between some of the dispensary patients and certain unscrupulous pharmacists of the town.

A KIND WORD FOR PHARMACIENS appeared last week in a Toulouse newspaper from the pen of Francisque Sarcey, the G. A. S. of present-day French journalism. M. Sarcey records that English people can sometimes make a joke and as an illustration of this he relates that a Member of Parliament has introduced a Bill in the House of Commons for the purpose of compelling doctors to take writing lessons. This leads to a reference to a doctor's prescription in a recent play, concerning which M. Sarcey says he has received a letter from a pharmacien who says: "If a doctor makes a mistake regarding the diagnosis and treatment of a malady, he despatches his client to another world, and the matter rests there. His fee is paid, and sometimes he is thanked. But if a pharmacien errs in making up a prescription, it is quite another matter. A patient may be poisoned and the dispenser is likely to be prosecuted, condemned and ruined. But the cases of fatal mistakes are extraordinarily rare, for by profession the pharmacien is careful and orderly. When errors of this kind occur it is more often than not the fault of the doctor in writing his prescription, but the pharmacien has to bear almost all the responsibility, on the plea that he ought to recognise a manifest mistake. Also he has to take the responsibility of the drugs supplied to him." The lesson we must learn, concludes M. Sarcey, from this letter, is that pharmacians as a body are composed of educated men who are not perhaps appreciated at their real value, and who feel and suffer from this.

THE EVIDENCE OF CHEMISTS AT THE ZOLA TRIAL.—Now that the famous Zola trial has terminated, it is interest-

ing, in reviewing the evidence brought forward for the defence, to note that no fewer than four French chemists of high repute came forward to give testimony in favour of the cause the famous novelist has thought fit to champion. These were M. Scheurer-Kestner, who started the campaign in favour of the convict Dreyfus, but who has been relegated to a back seat by the more militant Zola; M. Duclaux, director of the Pasteur Institute, who signed the memorial of protest against the supposed illegality of the Dreyfus trial; Dr. Héricourt, editor of the *Revue Scientifique*, and assistant-director of the toxicology laboratory of the Paris Faculty of Medicine, who believes Major Esterhazy to be the author of the *bordereau*; and M. Grimaux, who is professor of chemistry at the Ecole Polytechnique, honorary professor at the Paris School of Medicine, and a member of the French Institute. The weak feature of the statements made by these gentlemen lies in the fact that they testified to impressions rather than to facts. They imagine, not without a certain fatuity, that men of science are better able to judge of a supposed miscarriage of justice than their less talented fellow-men. It has been remarked that M. Berthelot, the eminent chemist, who is generally well to the front when any event of public interest is transpiring, has shown remarkable reticence on this occasion; but it must be remembered that, as a former Minister of Foreign Affairs, he knows all the facts of the case.

AT THE MEETING OF THE PARIS SOCIETY OF PHARMACY for the current month M. Bourquelot, the President, mentioned that he has gone through the list of the Society's foreign correspondents, and finds it contains errors. The list contains 135 names, of which fourteen only have been added during the past twenty years. He suggested that the list should be revised, and only those foreign members should be retained who had been elected during the past twenty-five years and those who, elected before that date, are still known to occupy themselves actively with pharmacy in their respective countries. The revised list will contain the names and addresses of the corresponding members, as well as the year of their election. The Society voted in favour of this proposal, and added to the list of its foreign members the following:—Professor Davidoff, Warsaw; Professor Poehl, St. Petersburg; M. O. Wetterholz, President of the St. Petersburg Society of Pharmacy; M. Beloloubeck, Professor at the Prague University; Professor Ranwez, Louvain; M. Derneville, President of the Royal Society of Pharmacy, Brussels. M. Bourquelot mentioned that the committee of the new Codex has terminated its preliminary work as regards galenic pharmacy, in which the suggestions of the provincial societies of pharmacy have been largely adopted. He suggested that the Paris Society should send in its reports without delay, and also inquired if the members were of opinion that the maximum doses of active medicaments should figure in the Codex, this course being adopted for the military formulary as well as in almost all foreign Pharmacopœias. After debate, a vote was passed in favour of such maximum doses being indicated. The meeting terminated by M. Champigny reading the financial report for the past year, which showed the Society to be financially sound.

Colonial and Foreign News.

NEW PHARMACY BILL.—The Ohio State Pharmaceutical Association held a special meeting at Columbus on January 18, at which a new Pharmacy Bill was drafted.

IN A HURRY.—The American papers say that Mr. W. B. Burk, druggist, Philadelphia, made a trip to Europe and back in just 16 days 22 hours. The trip was a business one, but could have left little time for placing orders.

FIRE IN HAMBURG.—Last Friday evening a serious fire broke out in the premises of Mr. J. H. A. Briegmann, colour and paint merchant, which extended to and seriously damaged the bonded stores of Mr. J. G. Biéber, manufacturing chemist.

SLOT-TELEPHONES.—There are said to be more than 800 slot-machine telephones in use in Chicago drug-stores. Telephones were formerly an "extra" which yielded to

profit, but the slot system introduced by Mr. Bodemann is found to yield a regular income without labour or trouble.

SOUTH AFRICAN EXHIBITION.—On January 27, at Grahamstown, Cape of Good Hope, the first soil of the South African exhibition-grounds was turned, this being preliminary to the laying-out of the gardens and building of the exhibition-palace. The exhibition will not be opened until December 15, 1898, and will remain open for five weeks.

FIXED PRICES OBJECTED TO.—The Erie County Pharmaceutical Association are considering the matter of prices of drugs given out on poor-orders. They say that it is not possible to fix uniform prices for drugs now that many expensive new remedies, such as antitoxin, are being ordered, and ask that they may depart from the regular schedule of prices in such cases.

SPORTSMAN-CHEMIST.—Mr. F. E. Davis, druggist, Philadelphia, was out shooting in Southern Jersey a short while ago, when he noticed a large eagle swoop down and pick up a sheep. Mr. Davis shot the bird, and has had it stuffed and placed in his shop. An eagle happens to be his trademark, a large bird carved in oak in 1805 already adorning the front of the pharmacy.

A NEW DRUG-CLUB.—Mr. D. E. Bransome, the representative of Messrs. Johnson & Johnson, has been for some time organising a drug-club for Philadelphia. He has obtained signatures of 160 druggists who are desirous of joining, but will not take further steps until he has obtained 200 names of those willing to join. The lack of a good club in the drug-trade has been much needed there.

CHEMIST-INSURGENT.—Among the prisoners who have been arrested at Havana, charged with inciting large numbers of armed farmers to join the Cuban insurgents, is M. Rubio, a chemist. Several of the leaders (among them M. Rubio) surrendered to the authorities of Pinar del Rio in December, and were liberated, but have now been re-arrested on a fresh charge. They are imprisoned in Morro Castle, Havana.

PHARMACOPEIA NEGLECTED.—Dr. E. H. Long of Buffalo College of Pharmacy, is trying to find out why it is doctors neglect the Pharmacopœia. He finds that nine-tenths of the copies sold are bought by druggists, and thinks that as a remedy for this state of affairs something should be done to make the publication more useful to physicians by incorporating in the next edition matter of especial value to them. He is circularising the professors at the medical colleges on the subject.

PRAGUE EXPOSITION OF 1898.—We have received from Mr. A. Gobiet, Prague-Karolinenthal, the manager of this exhibition, a prospectus setting forth particulars and general directions to intending exhibitors. The exhibition will be open from the 15th to the 22nd May, and will include all industrial, hygienic, and pharmaceutical products, food articles and beverages, and general novelties and inventions. The committee make a special appeal to British producers of specialities in light articles of diet.

GERMAN CHEMICAL COMPANIES.—The following are a few of the latest reports and dividends of companies carrying on business in Germany:—*Farbenfabrik Friedrich & Karl, Kessel*, the year's profits are 120,829 44 n., permitting a dividend of 7 per cent.; *Farbwerk Mulheim* (formerly A. Leonhardt & Co.), the original capital of 600,000 m. is to be increased to 2,500,000 n.; *Chemische Fabrik Eintritzsch, Leipzig*, dividend for 1897, 15 per cent.; *Chemische Fabrik* (formerly Goldenberg, Geromont & Co.), Winkel, dividend for 1897, 12 per cent., as compared with 10 per cent. in 1895.

SHORTER HOURS NOT WANTED.—New York druggists and assistants are objecting to the proposed legislation for shorter hours. The German Apothecaries' Association, King's County Pharmaceutical Society, and New York College of Pharmacy have passed resolutions and lodged petitions against the Bill. The pharmacists claim that they should know best what hours to work, and object to be dictated to in the matter of working-hours by "masons, bakers, bricklayers or clergymen," who they claim may know the requirements of their own businesses, but do not understand the state of the drug-trade.

DYES IN A WRONG PLACE.—A recent fire at the Elberfeld

Aniline-colour Works, Germany, has resulted in a crop of lawsuits against the company for damage done to goods, furniture, clothing, &c., by flying particles of colour borne by the wind during the progress of the fire. At the Roman Catholic church, Elberfeld, the vestments have been stained such a variety of colours as to give them quite a pantomimic air. The insurance companies deny liability, but it is thought by some that the Aniline Dye Company can be held responsible, if it can be shown the fire occurred through negligence on the part of the company's employés.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.—As previously reported, this Congress will open in Madrid on April 10, and will continue until April 17. The work of the Congress will be divided amongst the following sections:—I. Microbiology in relation to hygiene; II. Prophylaxis of transmissible diseases; III. Medical climatology and topography; IV. Urban hygiene; V. Hygiene of alimentation; VI. Of infancy and of schools; VII. Of exercise and labour; VIII. Military and naval hygiene; IX. Veterinary hygiene; X. Sanitary architecture and engineering. These sections comprise the first class; the second being solely devoted to demography. An exhibition will be held in connection with the Congress. It will be devoted to matters relating to hygiene, and prizes and medals will be awarded. Dr. D. Amalio Gimeno, Madrid, is the general secretary of the Congress, but those in this country who wish to obtain further information in regard to the Congress or Exhibition should address Sir Douglas Galton, 74A Margaret Street, W.

South African News.

ROYAL BAKING-POWDER AT THE CAPE.—At the Supreme Court, Cape Town, on February 1, the motion of Wright, Crossley & Co., Liverpool, v. The Royal Baking-powder Company was heard, the application being to show cause why the trade-mark "Royal" shall not be removed from the register of trade-marks. The plaintiffs alleged that for fifty years they had in England and elsewhere sold powder known as the Royal baking-powder upon a label showing a lion rampant with a shamrock, thistle, and rose, and round it the words "Royal Baking-powder." In March, 1897, they applied to have that label registered as a trade-mark. An objection was lodged on behalf of the Royal Baking-powder Company (of New York) on the ground that they had registered the word "Royal" in 1833 as a trade-mark in connection with the class in which baking-powder falls. The company had exported "Royal" baking-powder to the colony since 1876. After argument, the Chief Justice said he was of opinion that the word "Royal" was not a special and distinctive word, but had come to be descriptive. It had been decided by the Court of Appeal that the word "Royal" was not a special and distinctive word such as was capable of registration. The Registrar, therefore, ought not to have allowed the registration of the word "Royal" standing alone. It was quite competent for the respondents to make a further application, but all they need now do was to make the rule absolute, with costs.

BULUWAYO was sacred to Lobengula two or three years ago; to-day it is a busy English town, with a daily newspaper of eight pages, which finds enough in the town for the occupation of a woman journalist. Such is English colonisation. "Elaine," the lady in question, writes to "E hel," and tells her on January 14:—

I visited the shop of Messrs. Smart & Copley [leading chemists in Buluwayo] this week. They have a good stock of toilet luxuries and medicines, as well as of patent foodstuffs, which are also partly medicines. In the latter category comes Horlick's malted milk, which is a splendid thing. [&c. We must cut down "Elaine" here and there.] Messrs. Smart & Copley have ordered a consignment of the much-advertised Diamond Dyes. If these are all they claim to be, they ought to be much appreciated in Buluwayo. . . . Messrs. Smart & Copley . . . stock the best makes of toilet-vinegar and eau de Cologne, as well as more delicate and up-to-date scents. They have plenty of Ayer's sarsaparilla; glycerine in all its forms—as jelly, or along with cucumber.

"Elaine" goes on to speak about the complexion in a charming way. Home traders who have a desire to get their things under her notice must ask Messrs. Smart & Copley how it is done.

The Winter Session.

CHEMICAL SOCIETY.

THERE was a large attendance at the meeting on February 17, when Professor Dewar took the chair. The question of the prospect of obtaining a "Supplemental Charter" with a view of allowing the voting for Council to be carried on by proxy had been dealt with, and the PRESIDENT said he was directed by the Council to make a statement. He then laid before the meeting a case submitted for legal opinion, and the answer of counsel, Mr. Cozens-Hardy, Q.C., M.P. The gist of the case, which was long and gave the arguments on both sides, lay in the subjoined questions:—

Counsel is requested to advise the President and Council of the Chemical Society as to the chances of success of obtaining a supplemental charter.

1. If the Fellows were unanimous.
2. If there were a majority of the Fellows in favour of the proposed change and the minority took no active steps to oppose.
3. If there should be active opposition on the part of a minority of the Fellows.
4. If there were only a minority of the Fellows in favour of the change.
5. How the majority for or against the change is to be ascertained. Must it be a majority of the whole of the Fellows, or a majority of those voting at a general meeting?

Mr. Cozens-Hardy's reply seems to dispose of any possibility of the change being accomplished. That learned gentleman thinks it

highly improbable that the Government Department before whom the application must come would be disposed to listen to the application unless it represented the practically unanimous view of the Fellows, and that any active opposition by even a small minority would probably be fatal. The propriety of allowing votes by proxy or by voting-papers transmitted through the post is obviously open to reasonable doubt. It is not easy to alter the constitution of a body of this nature except to give effect to the practically unanimous wish of the corporators. He added that the supplemental charter granted in 1895 to the Institution of Civil Engineers does not really furnish a precedent applicable to the present case. That charter dealt with various important matters, of which the allowance of proxy votes or voting-papers was only one.

THE OFFICERS.

At this meeting the changes in officers and Council proposed for the ensuing year are announced. Those announced were:—

As *Vice-Presidents*—Professor J. M. Thomson, F.R.S., and Professor Liveing, F.R.S., *vice* Mr. Ludwig Mond, F.R.S., and Professor Roberts Austen, C.B., F.R.S.

As *Hon. Secretary*—Dr. W. P. Wynne, F.R.S., *vice* Professor John M. Thomson, F.R.S.

As *Ordinary Members of Council*—Messrs. E. J. Bevan, H. J. Fenton, W. Gowland, and David Howard, *vice* Messrs. B. H. Brough, J. W. Rodger, T. K. Rose, and Professor Sydney Young.

Of these changes, the most important is that which will replace Professor Thomson by Dr. Wynne. Professor Thomson, of King's College, Strand, has been a familiar figure for many years, and his services as Secretary for fifteen years to the Chemical Society have been invaluable. Dr. Wynne is one of the ablest of our younger organic chemists, and has won his reputation by the series of papers, in conjunction with Dr. Armstrong, which established the naphthalene theory on the same basis of experiment as that of the constitution of benzene.

Of the papers read, the first was some

OBSERVATIONS ON THE INFLUENCE OF THE SILENT DISCHARGE OF ELECTRICITY ON ATMOSPHERIC AIR.

By W. A. Shenstone and W. T. Evans.

When air is submitted to the action of the silent discharge it first contracts to a remarkable extent, and then re-expands rapidly until it very nearly occupies its original volume. The residue contains a trace of nitric peroxide. The following are some of the chief conclusions arrived at from a study of the above phenomena. Oxygen, when diluted in the nitrogen, as in air, yields a very large proportion of

ozone; 80-85 per cent. of the oxygen present may readily be ozonised in the presence of moisture, and if great care be taken as much as 93 per cent. of the oxygen may be converted into ozone.

An interesting discussion followed, in which Professor McLEOD, Professor ARMSTRONG, Dr. SCOTT, and several others took part, which turned on the formation of nitric acid and nitrogen peroxide in the process.

The second paper was also read by Mr. Shenstone. It described

SOME LECTURE-EXPERIMENTS.

By J. Tudor Candall, B.Sc.

Composition of Ozone.—An apparatus for exhibiting the volume relations of oxygen and ozone, that is simpler than previous forms, is constructed by attaching an indiarubber-tube reservoir of turpentine to a silent-discharge generator. When the contraction produced by ozonising has been measured, a tap is opened and the indiarubber squeezed, when turpentine flows in, its volume being exactly replaced by gas on the indiarubber expanding again, so the further contraction is unaffected by the added turpentine.

Conservation of Mass.—Phosphorus in a weighed and closed flask is set on fire by passing a hot wire down the hollow stem of the deflagrating-spoon containing it, thus raising the temperature of the spoon to the igniting-point of the phosphorus.

Graham's Law of Diffusion.—A tube is fitted so that it can be filled with hydrogen and other gases, and then connected to a filter-pump by means of a closed-up piece of the stem of a clay pipe, through the walls of which the gas can diffuse into the partial vacuum. The times that it takes for water to rise from one mark to another when the tube is filled with different gases are noted, and it is found that these are very nearly in the same ratio as the square roots of the densities of the gases.

The first of these has, it seems, already been described in "Thorpe," and Dr. ARMSTRONG said the elementary-school children of London had been performing a modification of the second for ten years or so.

Professor DOBBIE gave a short account of the next three papers: "Note on the Preparation and Properties of *o*-Chlorobrom-benzene," by J. J. Dobbie, M.A., D.Sc., and Fred Marsden, M.Sc.; "The Ultraviolet Absorption-spectra of some Closed-chain Carbon Compounds," by W. N. Hartley, F.R.S., and J. J. Dobbie, M.A., D.Sc.; "Note on the Absorption-bands in the Spectrum of Benzene," by W. N. Hartley, F.R.S., and J. J. Dobbie, M.A., D.Sc.

The next paper was

A CHEMICAL EXAMINATION OF THE CONSTITUENTS OF INDIAN AND AMERICAN PODOPHYLLUM,

By Wyndham R. Dunstan, F.R.S., and T. A. Henry.

The constituents of *Podophyllum Emodi* and of *P. peltatum* are identical. According to Podwyssotski and Kürsten, the two chemists who have studied podophyllin, the chief constituent is *podophyllotoxin*, $C_{15}H_{11}O_6$ (Dunstan and Henry). When this is heated with alkalis it forms *podophyllinic acid*, $C_{15}H_{11}O_7$, which readily loses water and becomes *picropodophyllin*, isomeric with podophyllotoxin. Formulae were assigned to these bodies. The yellow colouring-matter was found to be quercetin, a valuable dyestuff. Indian podophyllum contains from 9 to 12 per cent., and American from 4 to 5 per cent. of podophyllin. The two resins have been proved to be equally valuable therapeutic agents. The amount of crystalline podophyllotoxin in the Indian plant varies from 2 to 5 per cent., whilst representative samples of the American rhizome were found to contain rather less than 1 per cent.

In answer to a question from Mr. MILLARD, Professor DUNSTAN said the difference in solubility was due rather to the proportions of the constituents of the resins and not to any difference of composition of the constituents themselves.

THE VOLATILE CONSTITUENTS OF THE WOOD OF GOUTA TOMENTOSA.

By Wyndham R. Dunstan, F.R.S., and T. A. Henry.

This wood, of which a specimen was passed round, emits an engaging odour of valerian and rancid butter. By dis-

tilling it with water a mixture of fatty acids was obtained, including formic, isovaleric, normal caproic, and lauric acids.

ON OXYCANNABIN FROM INDIAN HEMP.

By Wyntham R. Dunstan, F.R.S., and T. A. Henry.

Oxycannabin is a lactone and a nitro-compound. Its name is therefore inappropriate. The PRESIDENT remarked that the work in this paper had been also carried out independently at Cambridge with similar results.

The following were elected Fellows:—Ernest Lionel Allhusen, B.Sc.; William Martin Bailey; Charles Edward Brittain, B.Sc.; Cecil Joslin Brooks; Benjamin S. Bull, M.A., B.Sc., Ph.D.; Charles Henry Burge; William Arthur Caldecott, B.A.; Matthew J. Cannou; Albert John Bullen Cooper; John Cooper, B.Sc.; William R. Cooper, M.A., B.Sc.; Frederick Cowling; Frederick Robertson Dodd; John R. Don, D.Sc., M.A.; Frederick W. Dootson, M.A.; Wilbraham T. A. Edwards; Frederick Gilderdale; William Setten Gilles; John Glaister, M.D.; Thomas Herbert Hills; David Homfray, B.Sc.; Atholl Francis McEwen; William Hobson Mills, B.A.; Gilbert Thomas Morgan; William Edward Moss; Herman Poole; Thomas Henry Pope; James Brown Reid; Frank Forster Reuwick; William Colebrook Reynolds; William Richards; Harold Charles Sayer; Andrew Jamieson Walker, B.A.; Ernest Charles Weissmüller.

IRISH PHARMACISTS' ASSISTANTS' ASSOCIATION.

Mr. J. S. ASHE, M.P.S.I., presided over the fortnightly meeting held on February 18, when Mr. H. HUNT, L.P.S.I., read a paper on "Photography," in which he argued that the art of photography should be taken up by chemists as a source of profit to themselves, and to enable them to set the novice right in the purchase of chemicals. Having related the history of the discoveries which had brought the art to its present position, the lecturer showed by practical demonstrations on the blackboard diagrams of light passing through lenses, and explained its action on chemicals. Speaking of the camera Mr. Hunt said this was secondary, up to a certain



point, to the skill and experience of the operator. To show that expensive apparatus was not essential, he showed a photograph (reproduced above) taken by means of a cigar-box, an elastic band, and a shutter worked by a hairpin. Half-plate cameras were recommended for beginners, and promiscuous snap-shots were deprecated. The focussing of an object was dealt with. The taking of a picture was governed by the exposure, character of the light, nature of the subject, time of year, hour of day, &c. Sky and sea views required short exposures, while woodland scenery and dark masses of foliage required long exposures. The rule was "expose for the shadows and let the high lights take care of themselves." Developing was next treated

of, and the following formula for a developing preparation was given as a stock solution of pyro:—

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

Add acid before pyro.

No. 1.

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

No. 2.

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

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

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

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

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

After toning, the prints should be fixed in a solution of hyposulphite of soda half the strength of that used for the plate. Mr. Hunt went on to speak of the many modern uses of photography, and showed as an example of three-colour process work, the covers of THE CHEMIST AND DRUGGIST summer number, 1897, which attracted considerable attention.

After the paper had been discussed by Messrs. O'SULLIVAN, TURNER, ASHE, and others, a vote of thanks was passed to Mr. Hunt.

EDINBURGH AND DISTRICT CHEMISTS' TRADE ASSOCIATION.

At a meeting held on Tuesday evening, Mr. Bowman (President) in the chair, Mr. PETER BOA introduced a discussion on

THE SALE OF METHYLATED SPIRIT.

He said they were all aware that a few years ago there was an outcry from certain quarters that methylated spirit was being used as a beverage to a large extent, and was bought from chemists late at night and on Sundays. He never had any sympathy with the agitation nor approved of the remedy adopted by the Excise authorities. Those who wanted to sell methylated spirit in a legitimate fashion had no difficulty in doing so. It was very easy to recognise people who came for methylated spirit to be used illegally, and it was easy to stop them. The method adopted by the Excise authorities—namely, to add a certain proportion of rock oil—appeared to him a very weak device. He should have thought they might have better treated the matter in the way they treated those who sold whisky at improper hours. Putting rock oil into the methylated spirit made the spirit absolutely unsuitable for many of the technical pur-

poses it was used for, and unfitted it for burning in spirit-lamps for heating food for invalids and children. Complaints were very numerous, and explanations had to be made. People could not understand why they could not get the kind they got before. For cleaning windows the present methylated spirit left a kind of film on the glass; and the same objection applied to its use for cleaning silver plate. For making varnish it was not suitable at all, simply for the reason that the rock oil used developed a kind of fluorescent appearance on the surface which was objectionable. This applied, too, to its use in furniture-oil. Photographers used the old spirit very largely, and they objected to the new kind. Now photographers in a comparatively large way of business made special arrangements for getting the old kind of methylated spirit from the methylators, so much of that trade was taken away from the chemist. Another point in this connection was that since the introduction of rock oil the Excise authorities had been much freer in granting licences to retail methylated spirit. At one time they would hardly grant a licence to a licensed grocer to sell methylated spirits. If he got it he had to buy bottles of a certain size, and to sell the bottles unopened. Now any grocer who cared to take a licence could buy a barrel and bottle it off as a chemist could do. He doubted, too, whether the addition of the rock oil had had the effect of stopping the drinking of methylated spirit. If the consumption for this purpose was less, it was probably due as much to the regulations as to hours of sale as to the rock oil. Another method which might be adopted by the Excise was a more judicious selection of retailers. Mr. Boa further pointed out the injury inflicted on chemists in a small way of business who could not get the old kind of spirit for making certain permitted preparations.

Mr. J. R. HILL agreed with Mr. Boa that the introduction of rock oil into methylated spirit for the purpose of making it undrinkable had been ineffectual. No doubt stopping the sale on Sundays had been the best remedy of the evil. He understood that those who had become habituated to the use of methylated spirit did not object to the rock oil at all. Their method of getting over the difficulty was that they bought a quantity of methylated spirit, and added a certain quantity of water to it. Then they got a piece of bread and took a drink of the spirit and then a mouthful of bread, and there was no trouble about it. The bread took away the nasty taste, and they had the full luxury of the effects of the liquor without any trouble. He also agreed with Mr. Boa that it interfered with the legitimate use of the spirit. Mr. Hill gave details of photographers' complaints of the rock oil in the varnish which had come to his notice, and he thought they might approach the Excise on the matter.

Mr. COATS did not agree with Mr. Boa that the presence of rock oil was objectionable in making varnishes. In spirit varnishes rock oil was an advantage. He had had no experience of anybody grumbling at the presence of rock oil in using the spirit for domestic purposes, and altogether he did not think it was quite such a serious matter as Mr. Boa seemed to think. On the whole, however, he thought it would have been better if the spirit had been left as it was.

Mr. McDUGALL, Leith, agreed with Mr. Boa's points; and Mr. MACKENZIE suggested that they should ask the Board of Inland Revenue to rescind the order, but he was afraid they would find that Board a very tough body to deal with. At present there was a movement amongst manufacturers to get the use of duty-free spirit for the manufacture of extracts. He saw that THE CHEMIST AND DRUGGIST was very enthusiastic about it. He should rather like to see how the Board would treat that request before approaching it on this subject. THE CHEMIST AND DRUGGIST made out a very strong case, in which it held that the British manufacturer had a distinct grievance, as compared with foreign manufacturers of extracts and other preparations, in respect that the foreign manufacturer could use duty-free spirit, and the British manufacturer could not do so. If the Board treated that application in an amicable way, they might have a fair chance of getting their request for the withdrawal of the methylated-spirit order acceded to.

Mr. FORRET said there was no difficulty in distinguishing

between the French polisher and the drinker of methylated spirit. No respectable druggist with a head on his shoulders should have any difficulty in detecting the would-be consumer of the stuff. He was sometimes asked for it, and, if he suspected the party, he told him to get it where he got his varnish, and he had no answer to that argument. Mr. Boa had said he had methods of putting a stop to the illegitimate sale, but he did not tell them what his methods were. He was not aware that photographers used the spirit very largely. They might use it in varnish a very little. When it was used in varnishing negatives, it left a kind of film. He had varnished negatives with ordinary varnish thinned down with methylated spirit and partially soluble matter, and he got a perfectly clear, slightly yellow, solution with shellac, which made a very good varnish; but he found a distinct haze, which he could see by looking along it. He could not clean it off. They might take away the rock oil, but it seemed to leave its mark. With regard to collodion, it was pretty well out of use; and, in any case, the photographer would buy it from the manufacturer. The idea of a photographer buying 5 gallons of methylated spirit at a time was absurd. He entirely sympathised with Mr. Boa's position in this matter.

Mr. D. McGLASHAN also sympathised with Mr. Boa's position.

Mr. DEWAR asked what finish was made from? If it was made from pure spirit there was no difficulty in making varnish.

Mr. STEVENSON said he never had any difficulty with methylated spirit. At the time when the regulation was made, he applied to the Excise authorities for permission to make the B.P. preparations with methylated spirit. They would not allow him to use it for private formulae, but he got a permit to make several preparations with methylated spirit without rock oil. He got a request-book which he used, and he had to keep the methylated spirit without the rock oil separate from the other in a cellar outside the shop.

The CHAIRMAN asked if he had any inspection of his premises?

Mr. STEVENSON said the inspector sometimes called and asked to see bottles and have a smell at them. He asked the inspector if he was allowed to make varnish, and he replied not without permission. He should have asked permission when he made his application. He had noticed a statement that the percentage was 61 for varnish, but if they used 64 per cent. for making varnish they got over the objection as to the presence of rock oil. He had people asking for methylated spirit, and if he suspected them he put a considerable quantity of quassia into it, and they did not come back again.

Mr. GLASS said some French polishers objected to the new spirit because it was very painful to the eyes. The rock oil seemed to affect the eyes.

Mr. FORRET asked Mr. Stevenson if he had to notify the Inland Revenue authorities of the quantity he took from stock to make liniments?

Mr. STEVENSON said he was merely required to state the probable quantity of methylated spirit he used in a year.

Mr. LUNAN had found his business in methylated spirit was going into the hands of the wine merchants, who did not want it. They supplied it because they had the licence.

Mr. C. F. HENRY corroborated this experience; whereas formerly he was the only one holding a licence in this district, there were now five licences within 100 yards held by drysalters and others.

The CHAIRMAN said when he suspected a customer he affixed a large poison-label to the bottle, and they would say, "That is not the kind I want; it is not the poisonous kind." (Laughter.)

After Mr. BOA had replied, it was agreed, on the motion of Mr. MCKENZIE, seconded by Mr. R. L. HENDRY, to remit the matter to the committee with power if they saw fit to approach the Federated Association for assistance; and Mr. Boa was thanked for introducing the discussion. It was also remitted to the committee to select a suitable place for this year's picnic, and to report to next meeting. A discussion on the advertising by proprietors of reduced prices for their articles, to be introduced by the Secretary, Mr. C. F. Henry was delayed till next meeting.

SCARBOROUGH CHEMISTS' ASSOCIATION.

As a sequel to the visit of Mr. Glyn-Jones in December, a meeting of chemists was held at the Albemarle Hotel, Scarborough, on February 15, to discuss the advisability of forming an association for the trade. The majority of the chemists in Scarborough were present, and Mr. John Whitfield, F.C.S., was in the chair.

Mr. E. R. Cross, pharmaceutical chemist, proposed that an association, to be called "The Scarborough Chemists' Association," be formed, having for its objects the advancement of pharmacy and the discussion of trade-questions. All registered chemists in the town to be eligible, and the annual subscription to be 2s. 6d.

This was seconded by Mr. GEO. WHITFORD, pharmaceutical chemist, and unanimously agreed to.

The office-bearers are:—President, Mr. John Whitfield, F.C.S.; Vice-President, Mr. Henry Chapman; Honorary Secretary, Mr. R. Gilchrist, 73 Newborough. These, with Messrs. F. Foster, George Whitfield, E. R. Cross, and T. W. Longdin, form the committee.

HALIFAX AND DISTRICT CHEMISTS' ASSOCIATION.

A MEETING of the Association was held on February 17 at the Old Cock Hotel, Mr. G. M. Cobb (President) in the chair. It was proposed by the PRESIDENT, and seconded by Mr. H. C. BIERLEY (Hon. Secretary), that Mr. H. W. Seely, F.C.S., be selected as a candidate for a seat on the P.A.T.A. Council. The whole Association promised him their votes.

A fine collection of marine algae, collected and mounted by Mr. E. M. Holmes, F.L.S., curator Pharmaceutical Society, was exhibited.

BRADFORD CHEMISTS' ASSOCIATION.

At a meeting of the Bradford and District Chemists' Association, held at the Great Northern Hotel on February 22, a lecture was given by Mr. W. M. GARDNER, F.C.S., on "Cellulose Products." Mr. A. H. Waddington occupied the chair. The lecturer described the sources of cellulose, its preparations and their chemical composition, and dealt fully with the manufacture of the following products:—Paper (various kinds), Willesden canvas, acetic acid, acetone, methyl alcohol, amyloid, dextrin, glucose, collodion, artificial silk, guncotton, celluloid, viscid, percussion-cotton, lusted cotton, and oxalic acid. A discussion followed, in which Messrs. WADDINGTON, PICKARD, JACKSON, CARSON, and MITCHELL took part.

GLASGOW AND WEST OF SCOTLAND PHARMACEUTICAL ASSOCIATION.

A MEETING of this Association was held on February 22, Mr. W. L. Currie (President) in the chair. A paper on

THE PREPARATION OF VIN. IPECAC.

was read by Mr. THOMAS DUNLOP, in which he pointed out the diversity of opinion prevailing about the acetic extract of ipecac. used in making vin. ipecac, the main point of difference being as to whether the extract should be evaporated to dryness or not. He had found the extract brittle and difficult to remove from the evaporating-basin, and found reducing it to powder was impossible. To secure uniform results he added a small quantity of glycerine, and found it gave every satisfaction. His *modus operandi* was when the percolate (a pint) was evaporated to about 1½ or 2 oz., he added 1 fl. dr. of glycerine, and stirred constantly till the extract ceased to run. By that means the acetic acid could all be driven off, without over or prolonged heating, and the extract was not so dark coloured, the glycerine, apparently, preventing the concentrated acid from attacking it. When cold the extract had the consistence of a jelly. This is easily removed, and rubs down at once with the sherry. The wine had no acetous odour, kept well, and was very active. He found the average of the insoluble portion of the extract of the last two pints he made was 20 per cent.

Mr. Dunlop exhibited a sample of wine which was made

on December 7 last, and also a sample of the sherry with which it was made. The difference in colour was scarcely perceptible.

Mr. G. E. PRIESTLEY then read a paper on

METEOROLOGY, OR LIFE ON THE SUMMIT OF BEN NEVIS,

giving a vivid description of the work of the meteorological observers on the summit of Ben Nevis. He described the way the duties are discharged, and gave some interesting experiences he had gone through in gales and other severe weather, the greatest troubles being due to ice and snow, which readily form whenever there was fog or mist on the summit.

In the discussion which followed, Mr. J. ROBBS said the results of the observations seemed scarcely to warrant the hardships the observers encountered. He thought that the prognostications resulting from their observations were not sufficiently often correct.

The Association next considered the Pharmacy Bill. The discussion is referred to elsewhere.

Marriages.

DUNSCOMBE—HELEY.—On February 9, at St. Kevin's Parish Church, Dublin, by the Rev. Phineas Hunt, M.A., rector, Christopher W. Dunscombe, jun., of Hamilton, Long & Co.'s State Pharmacy, Dublin, to Mabel W. Heley, youngest daughter of the late Frederick Heley, Dublin.

JOSEPHS—WINKEL.—At the Synagogue, Poet's Road Canonbury, N., on February 23, by the Rev. Dr. Spiers, Mr. Philip Josephs, jun. (of Philip Josephs & Son, Old Street, City Road, E.C.), to Marianne Eleanor, eldest daughter of Mr. and Mrs. Michael Winkel, of Highbury New Park, N.

REMINGTON—THOMAS.—On February 7, in the Protestant Episcopal Memorial Chapel of the Holy Communion, Philadelphia, U.S., Dr. Arthur Hart Remington, son of Professor Joseph Remington, President of the Philadelphia College of Pharmacy, to Sophie, daughter of George C. Thomas, of Drexel & Co, bankers, Philadelphia. Dr. and Mrs. Remington have gone to Vienna, where the former proposes to spend two years in hospitals before commencing active practice in Philadelphia.

RICHARDSON—ARNALL.—On February 16, at St. Peter's Church, Belgrave, Leicester, by the Rev. W. R. Morse, vicar of Rushden, assisted by the Rev. R. D. L. Clarke, vicar of St. Peter's, Mr. Reginald E. S. Richardson, son of Col. J. G. F. Richardson, J.P., of Elmsfield, Stonegate, and member of the firm of John Richardson & Co., to Ethel Mary Arnall, second daughter of Mr. Joseph Arnall, the Grange, Belgrave.

SMITH—GERBARD.—On February 17, at St. Mary's Parish Church, Wimbledon, by the Rev. R. T. Price, Kate Louisa Gerrard, second daughter of A. W. Gerrard, manufacturing chemist, of Queen's Road, Wimbledon, to Montague Smith, M.R.C.S., L.R.C.P., third son of Mr. and Mrs. W. Smith, Head Master's House, Maitland Park, Haverstock Hill, N.W.

Deaths.

BROWN.—On February 10, Mr. James Brown, pharmaceutical chemist, Birmingham. Aged 52.

DAVISON.—On February 11, Mr. Thomas Davison, chemist and druggist, Glasgow. Aged 67.

MORGAN.—On February 13, at Nelson Terrace, Southend-on-Sea, Mrs. Morgan, wife of Mr. F. H. Morgan, chemist and druggist.

PETTINGER.—On February 20, at 30 Rosslyn Hill, Hampstead, London, N.W., Elizabeth, wife of Mr. Elmer Pettinger, chemist and druggist. Aged 49.

WEST.—On February 1, of heart-disease, Mr. John West, druggist, Chicago. Aged 70. Mr. West was born at Shepton Mallet, Somerset; he left England when 20 years old, and was one of the pioneers of Chicago.

Our Town Traveller.

Our representative had a field day in the West-end this week, and returned elegantly perfumed and with a strange accent. Our volapukist succeeded in analysing the latter as a mixture of French, German, West of Scotland, and a suspicion of Welsh. He reports that in passing along the Strand he was attracted by the tasteful window-display at No. 176, the premises of

MR. S. SAINSBURY,

of lavender-water fame. He walked in, presented a *C. & D.* card, and was made welcome. Thereafter he deposited his topper on the *C. & D.* Winter issue, and looked around for the newest thing in perfumes. Mr. Sainsbury's latest is a delicious new perfume, rose violet, combining the odours of the rose and violet. This is put up in plain stoppered bottles to sell at 2s. 6d., 4s. 6d., 7s. 6d., and 13s. 6d. each. At the same prices and in the same kind of bottles he has violet, wood violet, musk rose, moss rose, white rose, and rose. Mr. Sainsbury does not go in for elaborate bottles. All are perfectly plain, but they are invariably unique in shape. He has just made an alteration in his Cologne bottle which is worthy of notice. Instead of the usual shape Mr. Sainsbury now uses a peculiar old-fashioned bottle, after the form of a perfect square. An old hand-made bottle had come into Mr. Sainsbury's possession, and the new Cologne bottles are an exact replica of this. Mr. Sainsbury stated also that the bottles for both Cologne and lavender have to be obtained from Paris, as English makers do not seem able to produce so perfect a bottle as they desire—a fact which might be noted with profit by English bottle-makers. The premises of

THE FRENCH HYGIENIC SOCIETY,

at 6 Conduit Street, Regent Street, came next on the journey, and there Our Town Traveller was waited upon by a charming young lady in a tartan blouse and a Parisian accent. She showed him the electric Rouleau-masseur, which is an ingenious toilet adjunct for removing wrinkles, crowsfeet, and all skin blemishes, and the production of a perfect complexion. The Rouleau-masseur is a small silver-plated corrugated or plain cylinder, which is connected with one of the poles of a battery, the other pole being connected with a handle held in one hand. On applying the cylinder to the skin a gentle electric current is felt. It is sold at 12s. 6d., or, with battery complete, 2l. 12s. 6d. Besides the electric Rouleau-masseur proper a small size, in case complete, can now be had containing four articles in a set for a guinea. The smaller size is handier for those parts of the face, neck, and arms which are more tender and more difficult to get at. Our representative learned that the company had likewise been appointed agents in England for the Société Hygienne de Paris, and orders for the celebrated toile-waters and toilet-vinegars of that company may be sent to 6 Conduit Street, the same discount being given as the Paris house gives.

From Conduit Street he journeyed to New Bond Street, and at No. 62 found in

MR. R. J. REUTER'S

establishment the home of 4,711 eau de Cologne and all Müllhen's manufactures. Mr. Reuter was eloquent on the efficacy of the new hair-wash Captol, and prophesied for it a brilliant future. The basis of Captol is the recently-invented chemical product of that name discovered by Dr. Eichhoff, of Elberfeld. It is the outcome of the condensation of tannin and chloral, but possessing neither the unpleasant secondary effects of tannin nor the irritating effects of chloral, and it is said to exert a most favourable influence on *Schorrhœa capitis* and *Defluvium capillorum*. Mr. Reuter states that many of the greatest continental authorities on scalp-diseases have commented on this preparation in the most favourable terms. Should the Captol hair-wash be considered too spirituous for ordinary use, physicians and chemists are advised that it will combine readily with oils or fats, and a suitable ointment may be made with anhydrous lanolin.

TRUEFITT (LIMITED)

(13 and 14 Old Bond Street) have lately introduced a new line in soaps which will commend itself to high-class chemists. It is called Royal Mimosa, and each cake is put up in pale-green satin and tied with pink bows at both ends. Each cake retails at 4s. 6d., and they are put up three in a box. Another new preparation of theirs, which may be useful to chemists with a theatrical trade, is their fatty rouge for make-up—viz., Rouge-Gras. This is put up in two sizes— $\frac{1}{2}$ oz. to retail at 5s. 6d., and 1 oz. to retail at 10s. 6d. The elegant establishment of

MR. W. M. CARMICHAEL

at 158 New Bond Street is well worthy of a visit. Mr. Carmichael, in the course of half-an-hour's chat, told our representative many of his ideas on the subject of toilet-preparations. He proposes to put on the market in a short time a new tooth-paste which will be somewhat out of the common run. The tooth-pastes of the present day, Mr. Carmichael says, are either too hard or too soft, and he is endeavouring to strike the happy medium. He has a new hair-wash also in hand, which is on trial with a view to proving its efficacy. Mr. Carmichael speaks well of the sale of his "Amulets," those delightful perfume-charms which have been all the vogue for a year or two; and he is sanguine that both his tooth paste and hair-wash will prove a like success. The majority of Mr. Carmichael's clients being at present at Monte Carlo he has more leisure than usual to attend to the perfection of his inventions, and the trade may look for further elegant and luxurious toilet-preparations from 158 New Bond Street before very long.

BARCLAY & SONS (LIMITED)

have a number of new things on show at their ware-rooms in Farringdon Street, E.C. The latest is an essence of coffee manufactured by Messrs. Cooper, Cooper & Co. (Limited), the world-famed tea-people. The essence is called "Seyjota," and is put up nicely in the conventional square, but with a rather longer neck than usual. What we like about this coffee-essence is that it is excellent either "white" or "black," and that is not a thing we should care to say about every essence of coffee. Messrs. Barclay are

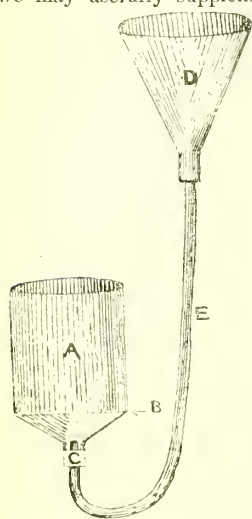


the sole agents for distributing to chemists, and the face-value (1s.) is to be maintained. As it costs 10s. a dozen, the profit is better than is generally obtained on such goods. A few weeks ago Mr. R. H. Groves, of Blandford, showed us a model of a rapid filter which he had invented. Our Town Traveller now tells us that Messrs. Barclay have secured the manufacture of it and the patent rights, and are bringing it out in various sizes convenient for the retailer and wholesaler alike. Mr. Groves hit upon the idea one day when he was vainly trying to filter about 2 gallons of a residue of a preparation which was worth 24s. a gallon. His idea was to well close the funnel, attach a cycle-tire valve to it, and pump in air. He tried it, and with mar-

vellous success, so there it is now in the form shown in the illustration. The perforated disc is for securing and protecting the filtering-medium, which may be muslin with a piece of filtering-paper, felt, flannel, or whatever may suit. Mr. Groves does not claim his invention to be a new principle in practical pharmacy, but that it is a simple method of applying pressure filtration, and that the filter may also be used without pressure or as a percolator if required. The lid, of course, is removable, and fits into an airtight socket. While treating of

PRESSURE FILTRATION

we may usefully supplement the notes on the subject in "The Art of Pharmacy" (*C. & D. DIARY*) by mentioning that filtration does not always proceed according to the pressure—*e.g.*, it is not double with double pressure, and so on. Dr. John Attfield and the late Mr. G. F. Schacht long ago made some experiments on this point with a filter such as that figured here, the results of which we quote as an illustration, the quantities filtered being in uniform periods, and the length of the column from filter to receiver being as noted (of course it does not matter what the actual length of the tube may be, the vertical distance occupied being the thing; thus if a 4-foot tube is bent up into a 1-foot distance, we get 1-foot pressure only):—



	Actual Filtra- tion Rate	Hydrodynamic Rate	Aërostatic Proportion
At 1 foot ...	34 oz.	34 oz.	34 oz.
2 feet ...	57 "	48 "	68 "
3 " ...	73 "	59 "	102 "
4 " ...	87 "	68 "	136 "

It almost seems from this that the rate of filtration is between the hydrodynamic rate and the aërostatic proportion, but no rule can be deduced. The filtering-medium is a retarding influence; in filtering a mixture of solid and liquid, we every second increase that retardation by adding to the thickness of the medium, and if the pressure is increased sufficiently we reach a point at which the filtering-medium becomes so thick, or the aggregated particles of solid so compacted upon it, that it ceased to be permeable to liquid. So we arrive at a condition of affairs in which force is no remedy. This is a point to remember in regard to pressure-filtration.

CARBURINE is the name of an article used for enriching coal-gas. Mr. E. J. Bevan, the analyst, has reported to the Brentford District Council that he had examined a sample of it, and found it very inflammable, firing even below the freezing-point of water. He advised that it should not be stored near any building. In the course of a long discussion professional opinion was given to the effect that if the carburene once caught alight it would do much damage.

ALCOHOLIC EXTRACTS.—Sir Howard Vincent has given the following notice of a question which he will ask on Thursday next, March 3:—"To ask the Chancellor of the Exchequer if, having regard to the duty levied in the United Kingdom upon pure alcohol, and, in consequence, upon British medicines in which alcohol is used in the process of manufacture, he will take steps to levy an equal countervailing duty (as in the case of transparent soap, &c.) upon the importation of German and other foreign medicines made with pure alcohol."

Legal Reports.

THE PHARMACY ACT.

"A MOST REPREHENSIBLE THING."

At Portsmouth County Court, on February 17, before Judge Gye, G. S. Sutton, of 31 Stoke Road, Gosport, was summoned by the Pharmaceutical Society for keeping a shop open for retailing, compounding, and dispensing of poisons, he not being a properly registered chemist and druggist. A penalty of 5*l.* was claimed. Mr. R. E. Vaughan Williams, barrister, instructed by Messrs. Flux, Thompson & Flux, represented the Society, and defendant appeared in person. Mr. Williams, after quoting from the Act, stated that on September 27 last, Mr. Partridge, on behalf of the Society, purchased a mixture of laudanum and soap-liniment at defendant's shop. Laudanum was tincture of opium. In reply to a letter from the Society, defendant wrote to the effect that he was carrying on the business as executor to his father's will. The sale of the poison having been proved, defendant asked his Honour to read his late father's will, under which he was appointed executor to the estate. The will had not been proved, however, and the Judge refused to look at it, telling the defendant he had done a most reprehensible thing in carrying on a business for which he was not qualified. Judgment was given for the plaintiff Society for the amount claimed, and costs.

CHEMISTS' LIABILITY.

At the Gloucester Assizes, on February 16, an action for damages was heard against Mr. S. J. Coley, chemist, Stroud. The plaintiff, Mrs. Nolan, whose husband was formerly station-master at Stroud, earned a considerable income by painting and art needlework. Her counsel stated that she had cut her finger, and Mr. Nolan went to the defendant, saying he wanted something to cure it. Defendant recommended and supplied a small phial of carbolic oil, which was in the proportion of 1 in 20. The supply of oil having become exhausted, Mrs. Nolan sent her granddaughter with the bottle to be refilled. The bottle had on the label "1 in 20," and the girl handed it to the defendant's assistant, who refilled it in her presence. He poured it out of two bottles into the phial, did not measure it, but put two equal parts. The stuff was taken home, and the following evening Mrs. Nolan applied some of the contents of the refilled phial to her finger. Between then and the morning severe pains set in, accompanied by a burning sensation. Her arm became swollen up, and she suffered excruciating agony. Counsel submitted that, instead of the liniment being 1 in 20, it was 1 in 2. The defendant contended that the plaintiff was guilty of contributory negligence in sending a child for the oil, but Mr. Greene, for the plaintiff, remarked there could be no negligence in that, as the constituents of the oil were written on the bottle which she took with her.

Mr. Young, for the defendant, admitted that the oil supplied did, in fact, contain 1 in 2 instead of 1 in 20, and the assistant who supplied it had been guilty of negligence. It was true that the label had "1 in 20" on it, but the nought was twisted in the fluted part of the bottle, and that was, no doubt, how the mistake arose. If injury resulted from that mistake, no doubt the defendant would be responsible in law; but it did not follow that injury was inflicted through that negligence. Any damage which resulted was a mere burning of the skin, and nothing more, and Dr. Story, one of the plaintiff's own witnesses, said in cross-examination that there was no damage to the structure beneath the skin. Mr. Young submitted that the plaintiff had exaggerated her case very much—had "piled on the agony"—on the question of damages. Dr. C. Firmin Cuthbert was called for the defence, and he gave it as his opinion that it was not possible for the injury to plaintiff's finger to have been caused by the application of the carbolic oil. In cross-examination, Dr. Cuthbert said the application of the oil in the proportion of 1 in 2 would cause superficial burning, but a repetition of the application would not increase the injury. Mr. Young said it was a significant circumstance that Dr. Batten, who had seen the plaintiff, was not called, and the jury were

entitled to draw the inference that he could not support Mrs. Nolan's case.

The Judge pointed out that by virtue of the pleadings there must be a verdict for the plaintiff, and, in summing up his Lordship said if plaintiff was injured by the negligent treatment of another person she was entitled to reasonable compensation for the injury sustained by reason of that treatment. The damages to be recovered were those which were naturally occasioned by the negligence.

The jury found for the plaintiff, and assessed the damages at 40*l.* Judgment was given accordingly, but the question of costs was reserved. Subsequently the Judge certified for costs, but only on the County Court scale.

THE VETERINARY SURGEONS ACT.

"VETERINARIAN."

At Huddersfield Petty Sessions, on February 16, Mr. Wm. Sharpe, cattle-spice manufacturer, Brighouse, was proceeded against under the Veterinary Surgeons Act, 1881, for describing himself as "veterinarian."

Mr. Reed, who prosecuted on behalf of the Royal College of Veterinary Surgeons, stated that the defendant was a manufacturer of cattle-spices, and on February 11 sold to Fredk. Hirst a packet of spice. With it he gave him a bill in which defendant was described as "W. Sharpe, Veterinarian, Huddersfield Road, Rastrick, Brighouse." The packet also bore the same description. On reference to dictionaries he found that the word veterinarian implied "one skilled in the diseases of cattle." That was in Johnson's Dictionary of 1818. In Webster's Dictionary the definition was plainer—viz, "one skilled in diseases of cattle or domestic animals; a veterinary surgeon." The latter was the modern acceptation of the word, and the Bench had to consider what people who read the word would infer from it.

For the defence, Mr. Welsh suggested that the word "veterinarian" was simply a word describing a vendor of cattle-foods. His client, who pleaded not guilty, had sold these cattle-foods for thirty years. If he liked he could have been admitted a member of the R.C.V.S. as soon as the Act was passed, but as he did not then get his living solely by the sale of those foods he did not make application until 1896, when he was told that he should have applied earlier. If he had offended, he had done so in ignorance.

A fine of 40*s.* and costs, including the prosecuting advocate's fee, was imposed.

SALE OF FOOD AND DRUGS ACT.

TINCTURE OF BENZOIN.

At Birmingham Police Court, on February 18, Messrs. Magor (Limited) were summoned for selling compound tincture of benzoïn which was said to contain 20 per cent. of water in excess of that contained in the rectified spirit, and 25 per cent. of glycerine. The certificate of Dr. Hill, the city analyst, stated that the compound contained in each pint:—Solid extract, 1 oz.; glycerine, 5 oz.; rectified spirit, 9.5 oz.; water, 4.4 oz. The sample yielded only 30 per cent. of the solid ingredients and 70 per cent. of the rectified spirit contained in the tincture prepared according to the B.P. The tincture was purchased on January 18 by Inspector Jones at the Moseley Road shop of the defendants.

Mr. Parfitt, who represented the defendant company, stated that the circumstances of the case were somewhat peculiar. On August 28 last year the shop in question was taken over by Magor (Limited) from a Mr. Thompson, and of course a large number of bottles, containing various drugs, were also taken over. The company had not had an opportunity of testing every drug in the place, and the tincture in question was sold from one of the bottles taken over. It was only after the inspector informed them of the result of the analysis that the company knew of the adulteration. He admitted that a technical offence had been committed, but it was not one calling for a heavy punishment. Since the matter had come to Mr. Magor's knowledge he had decided to carefully test every drug and see that it was in accordance with the standard.

Mr. Martin Magor, managing director to the company, confirmed this statement. He had no idea there were any

adulterated drugs in the shop, and he was now going through every one of them, but as there were between 700 and 1,000 bottles in the shop, this must take a long time. In answer to the Magistrate's Clerk, Mr. Magor said from his knowledge as a chemist he did not think the adulteration complained of would make the slightest difference to the drug, either as a medicine or an outward application. From a medicinal point of view certainly it was absolutely immaterial. The cost had been lessened by what had been done, he should think, to the extent of something like 30 per cent. It was impossible, he added, to detect the adulteration by smell.

Mr. Fisher said the Bench were disposed to take the view Mr. Magor had placed before them. In a business like this, however, it was necessary that the company should ascertain the contents of the whole of the bottles, and where there was any suspicion of anything wrong it must be put right. In this case there had been no wilful intention on the part of the defendants, and justice would be met with a penalty of 20*s.* and costs.

ANALYSTS DIFFER.

On February 18, in the North London Police Court, there was some curious evidence with regard to the analyses of a coffee mixture. Dr. Teed, the public analyst of Islington, certified 84 per cent. of chicory. The defendants in this case (the Home and Colonial Stores, Limited) called in Mr. A. W. Stokes, public analyst for Paddington, who certified 66 per cent. of chicory; and then came "independent" testimony in the shape of a certificate from Somerset House laboratory, which gave the chicory at 60 per cent. The defendants admitted 50 per cent., and submitted, as an explanation of the discrepancies, that coffee and chicory needed very careful mixing. The Magistrate (Mr. D'Eyncourt) thought so too, because, said he, on the evidence before him, one person might get nearly all chicory and another nearly all coffee. All three of the certificates were against the defendants; but he did not convict so much upon these as upon the fact that the mixture had been sold when "coffee" was asked for. Mr. Young, who defended, said the law had been complied with by wrapping the article in a label upon which was distinctly printed "coffee and chicory." Mr. D'Eyncourt: I might go into a chemist's shop and ask for camphor, and get it wrapped in a paper advertising somebody's pills. But I should not expect to find pills. If coffee is asked for, and you have not got it, you must say so before the purchase is effected. The defendant will be fined 3*l.*, and 2*l.* 2*s.* costs. There was another summons against the same defendants for selling as "Demerara sugar" an article which proved to be dyed-beet crystals. Dr. Teed said this article was quite as wholesome as Demerara sugar. Mr. Young: Therefore it was not "sold to the prejudice of the purchaser." Dr. Teed: Though I have heard that bees will not go near this dyed sugar. Mr. D'Eyncourt: We cannot have the bees here as witnesses. (Laughter.) Demerara was asked for and not supplied. Fined 3*l.*, and 2*l.* 2*s.* costs.

GROCERS' "OLIVE OIL."

At New Swindon Police Court, on February 17, William Moulder, grocer, was proceeded against, for selling as olive oil an oil consisting of 90 per cent. of cotton-seed oil and 10 per cent. of olive oil. Defendant, who stated that he bought the oil at 5*l.* a flask, and sold it at 6*l.*, was fined 10*s.*, with 8*s.* costs.

COUNTY COURT CASES.

SUING AN EXECUTRIX.

At the Uttoxeter County Court on February 19, before Judge Jordan, Arthur Bayley, grocer, sued a Miss Lakin, as sole executrix of the late William Hurd, chemist, of Uttoxeter, to recover the sum of 8*l.* 18*s.* 10*d.* in respect of goods sold and delivered. The defendant admitted the debt, and plaintiff asked for judgment forthwith. His Honour, in giving judgment, told plaintiff that he could not levy on Miss Lakin's goods because she was not personally liable for the debts contracted by deceased. She was only liable for the costs of

the action, and the amount sued for would have to be paid out of deceased's estate.

ALLEGED FAULTY BOTTLES.

At the Hanley County Court on February 17, before Judge Jordan, Thomas Turner & Co. (Limited), glass-bottle manufacturers, of Dewsbury, sued John Fox, mineral-water manufacturer, Hanley, to recover 76*l.* 9*s.* 10*d.* in respect of bottles supplied. The defendant admitted the claim, and paid 50*l.* into court, but counterclaimed for 26*l.* 9*s.* 10*d.*, damages for alleged breach of agreement. The case had been remitted from the High Court. It was stated in support of the defendant's counterclaim that, owing to defective stoppers and faulty necks, an undue proportion of the bottles supplied were unsuitable. In consequence of these defects the contents of the bottles were destroyed by the gas being allowed to escape, and defendant lost some of his customers. Out of eighty-two gross supplied, seven or eight gross, he said, were utterly useless, but he only produced fourteen dozen for inspection and testing. On behalf of the plaintiffs, it was contended that the proportion of faulty bottles was only fair and reasonable, and that among the small number exhibited for their examination, after repeated applications, most of them proved to be all right. His Honour said no doubt the jury would understand that in large numbers of bottles there were bound to be some faulty, but the defendant's own evidence had narrowed the case down to very small limits. It was, however, for the jury to determine what, if any, damage had been sustained. The jury, after a brief consultation, found that there was no undue proportion of faulty bottles, and that the defendant had sustained no damage. His Honour accordingly entered judgment for plaintiffs on both the claim and counterclaim.

PAYING ACCOUNTS TO TRAVELLERS.

In the City of London Court on Wednesday, before Mr. G. Pitt-Lewis, Q.C., Deputy-Judge, Mr. Hermann Graff, 17 Devonshire Square, E.C., sought to recover 2*l.* 18*s.* 3*d.* for seidlitz powders supplied to Mr. Hawse, 124 Brewery Road, N. Mr. Whitehouse, plaintiff's solicitor, said the goods were sold to the defendant by a traveller or commission man, named Morrison. The order and the delivery of the goods were not in dispute. The defendant's case was that he had paid Morrison the amount of the account, but the plaintiff's answer to that was that Morrison had no authority to take the money. Mr. Stimson, in the employment of the plaintiff, said that after the goods had been delivered he called upon the defendant to receive payment of the account. The defendant made an excuse for not paying, and asked witness to call again, which he did. Then the defendant said that he had paid Morrison the money on the previous Monday. He told the defendant that he should not have done so. Morrison was simply a commission traveller, and had no business to collect accounts. It was simply his duty to solicit orders. Morrison had only been with the plaintiff for about a week when the transaction arose. The defendant, in answer to the Court, said it was quite true that he had paid Morrison. He did so before being warned not to do so. The plaintiff said he called on the defendant and saw the receipt which Morrison had given. In his view it did not bind him (plaintiff). Several of the orders which Morrison brought in were fictitious. In fact, he "told lots of lies." The defendant pointed out that there was nothing on the invoice to warn him not to pay Morrison. As a matter of fact the account was not quite due, and he received a small discount for paying a little in advance. Morrison had called upon him on behalf of other firms, and there had never been any dispute before. It was not true to say that Morrison was his friend. There had never been any friendship existing between them, other than that which generally prevailed between shopkeepers and travellers. Morrison was still travelling for other firms. The Deputy Judge said the defendant's story was a genuine one, and there must be judgment for him with costs.

THE URBAN COUNCIL AND THE PILL ADVERTISEMENTS.

At the Sussex Assizes on Saturday last, before Mr. Justice Grantham, Charles Polham, a bathing-machine proprietor,

sought to obtain an injunction restraining the Littlehampton Urban Council from acting on a resolution to revoke his licence for bathing-machines. It appeared that in July last the plaintiff entered into a contract with the proprietors of Holloway's pills to advertise their medicines, and the advertisement was duly painted on the bathing-machines. Notice was afterwards served on plaintiff, at the instance of the Council, stating that a resolution had been passed that, unless the advertising-matter was removed, the licence would be revoked. On that the plaintiff obtained an interim injunction, and the proceedings went on until October, when the injunction was discharged on the defendants paying costs. The costs were not paid, however, and the action being restored the matter was referred to the present Court. For the plaintiff it was contended that the Council had no power to revoke a licence except after a second conviction. Here there had not been any conviction. Mr. Boxall, for the defendants, contended that they had a right to revoke the licence on the ground that the advertisements were an eyesore and a nuisance. His Lordship said it would be unreasonable if the Council could have the power to cancel at any time, notwithstanding any expense the licensee might have been put to in providing bathing-machines and complying with the by-laws. Mr. Boxall said the Council reserved the right of revocation if necessary, as they only held the foreshore from the Duke of Norfolk on a verbal agreement, one of the conditions being that there should be no advertisements exhibited on the bathing-machines. Eventually his Lordship granted the injunction asked for. He said he quite appreciated the endeavour of the local authority to put down advertising, which had become a nuisance, but the attempt to introduce a new by-law was monstrous. He therefore gave judgment for the plaintiff with costs, and declined to stay execution with a view to appeal.

A MINERAL-WATER LIBEL CASE.

In the Queen's Bench Division of the High Court of Justice, before the Lord Chief Justice, on Tuesday, Mrs. Pooley sued the proprietors of the *Mineral Water Trade Journal* for libel. It appeared that in June last the same plaintiff brought an action for libel against Messrs. Stevenson & Howell in respect of a letter which they had written, and which was published in the *Mineral Water Trade Review* asking all creditors of Pooley & Co. to communicate with them. Mrs. Pooley was carrying on a business as a mineral-water manufacturer, she having been placed in it by friends after her husband was bankrupt in 1885. After hearing the evidence, the jury in that case found a verdict for the plaintiff, and awarded a farthing damages. Certain comments on the case subsequently appeared in the *Mineral Water Trade Journal*, which constituted the alleged libel. Mr. Matthew Harris, Q.C., who appeared for Mrs. Pooley, said the worst part of the libel was the allegation that Pooley & Co. "sold at ruinous prices and waged commercial warfare with honest trade," which, he submitted, meant that they got their goods for nothing, and did not care at what price they sold them. Mr. Foot, on behalf of the defendants, undertook to justify what his clients had written in every detail. He ridiculed the mention by Mr. Harris of the poor woman struggling to keep herself and nine children out of the mineral-water business which she carried on under the name of "Pooley & Co." After the evidence in the action against Messrs. Stevenson & Howell, and the verdict in that case, he wondered at the temerity of Mr. Harris in bringing this action into court. Moreover, he denied that the paragraph pointed to Mrs. Pooley at all. The words were "one Pooley," but the Lord Chief Justice thought the jury would not accept this plea, because Mrs. Pooley was clearly mentioned in the report of the trial on which the alleged libellous comment was made. Mr. Foot, however, contended that the plaintiff was not entitled to any more damages now than she got last June—in fact, to no damages at all—because what was written was fair comment by a trade paper in the interests of the trade.

The Lord Chief Justice, in summing up, said the jury need not put any greater weight than they thought fit upon any remarks of his. A report of the trial of "Pooley v. Stevenson & Howell" (heard before the late Mr. Justice Cave) had been put in as evidence of the real facts of Mrs. Pooley's business transactions, and side by side with this the

comments of the editor of the *Mineral Water Trade Journal*. It was for the jury to say whether the evidence justified the comment. It had been argued that if Mrs. Pooley got damages the money would go into the pocket of her husband (whose business she carried on after he was made bankrupt), and that it would not go far towards the support of the nine children mentioned. But the jury must not take sentiment, but fact; and if they considered that the trade paper had fairly commented on a matter of trade interest they must give a verdict in favour of the defendants. The jury found a verdict for plaintiff, with 50*l.* damages.

MINERAL-WATER TRADE RIVALRY.

IN the Queen's Bench Division, on February 22, before the Lord Chief Justice and a special jury, George Scott, trading as Scott & Co. (mineral-water manufacturers), brought an action against Batey & Co., who carry on a similar business at Fulham, for trespass to the plaintiff's goods, converting them to their own use, and wrongfully depriving the plaintiff of them. The goods referred to were mineral-water bottles and boxes. The defence was a denial of the allegation in the statement of claim.

Mr. Wallace, Q.C., on behalf of the plaintiff, said he began business in April, 1897, and the defendants' servants had gone to the plaintiff's customers, taken away plaintiff's bottles, and given defendants' bottles in exchange. A servant of the defendants told a dealer that people could not drink such stuff as Scott's, and he would therefore give Batey's instead. His case was that defendants' outdoor-foreman and manager had given instructions to their carmen to collect as much as they could of the plaintiff's stuff, even if it cost "a guinea a box." It would be proved that on a certain occasion one of Batey's men had said that Scotts had become bankrupt, and that he was instructed to collect their goods. The bottles and boxes in question had the plaintiff's name on them.

Evidence was called in support of counsel's opening statement.

Mr. Cock, Q.C., for the defendants, said that a number of men in the employ of the plaintiff had formerly been in the employ of the defendants, and he should call a large body of evidence to show that the defendants never gave the alleged instructions, and, so far as they knew, all the bottles of the plaintiff which had come to their possession had been sent to the plaintiff free of expense. The managers of the defendants' business knew nothing of any of the plaintiff's bottles coming to them, except in the ordinary course of business. The carmen were paid by commission, and if they had done what was complained of, it had been without the knowledge or approval of his clients, who had vans all over London, and an output of something like 30,000,000 bottles. It would be shown that the bottles of one firm getting into the possession of another, by means of exchange, was unavoidable. In fact, so common was it that a sort of clearing-house had been established to deal with them.

Evidence having been given in support of the defence, after the lunch adjournment Mr. Cock, Q.C., said an arrangement had been agreed upon. The defendants' firm had never given any instructions to justify their men making the statements they apparently had made. Mr. Wallace would accept that statement. On the evidence, it seemed clear that the men had been saying things and doing things which they had no authority for. Under these circumstances, they had agreed that a juror should be withdrawn, the defendants undertaking to pay the costs of the action, which they could not say the plaintiff was not justified in bringing. At the same time the defendants would undertake to do—what they had always tried to do—use their best endeavours to prevent the men collecting these bottles or boxes.

Mr. Wallace, Q.C., on behalf of the plaintiff, said he accepted the explanation that the defendant firm were not in any way parties to the acts of their servants.

A juror was then withdrawn, and the action settled on the terms mentioned.

THE KODAK TRADE-MARK.

IN the Chancery Division on February 23, Mr. Justice Romer heard the argument in the action of the Eastman Photo-

graphic Materials Company (Limited) v. the John Griffiths Cycle Corporation (Limited). The plaintiffs are the makers of Kodak cameras, and they sought to rectify the register of trade-marks by expunging the word Kodak in the trade-mark of the defendants. An injunction was also asked to restrain the defendants and the Kodak Cycle Company from carrying on business under the name of Kodak Cycle Company, and from using the word Kodak in connection with goods not of the plaintiffs' manufacture.

Mr. Kerley, for the plaintiffs, said defendants carried on a large business in cycles and cycle accessories. In October last year they registered a company called Kodak Cycle Company. The word Kodak had been registered by and had become identified with the Eastman Company in connection with their cameras. In the beginning of 1895 the plaintiffs devised various adaptations of their cameras for cycles. Their cameras had been exhibited at the Stanley Show, and booklets on the "Bicycle Kodak" had been extensively issued, and the plaintiffs' company had thus become identified to some extent with the bicycle trade. Three gentlemen had filed affidavits to the effect that they had been deceived into believing that the Kodak cycles of the defendants were manufactured by the Eastman Company.

Mr. H. Gray, for the defendants, contended that the use of the word would not deceive the public into believing that the cycles were made by plaintiffs. Plaintiffs had made an appliance to fit the camera on cycles, but that was a camera accessory and not a cycle accessory. Because a camera had been applied to cycles, it was no reason why there should be a connection between the business of the plaintiffs and defendants.

Mr. Justice Romer, in delivering judgment, said that the plaintiff company, which carried on a large and well-known business, years since invented the word "Kodak" as applied to cameras. These cameras had become very well known and were largely identified as the goods of the plaintiffs; in fact they might say, that word was the trade-name of the plaintiffs. The Kodak cameras were specially available for use on cycles, and were much used by cyclists. For some time special forms of these cameras were advertised as "Kodak" or "Bicycle Kodak" cameras. The evidence showed that between the bicycle and the photographic trade of the plaintiff company there was an intimate connection. And it might happen that hereafter the plaintiff company might wish to manufacture and sell cycles specially adapted to carry their Kodaks. The defendants suddenly applied the word "Kodak" to their cycles, and on December 4, 1897, they obtained registration of the word "Kodak," and in October last incorporated a company under the name of the Kodak Cycle Company. In his belief the defendant company did this with the hope and with the intention of identifying their company with the well-known plaintiff company, and to cause the public to suppose they were the same, and thus obtain the benefit of the plaintiff company's larger reputation. He therefore ordered the word "Kodak" to be expunged from the defendants' trade-mark, and granted an injunction restraining the defendants from carrying on business under the name "Kodak Cycle Company (Limited)," or any name comprising the word "Kodak," and also from selling or offering for sale any cycles or goods as Kodaks that were not of the plaintiffs' manufacture.

His Lordship directed that the defendants should pay the costs, including those of the Controller, but suspended the operation of the order for fourteen days, to enable the defendants to apply to the Board of Trade for a change in the name of the Company.

Bankruptcies and Failures.

Re JOHN ANDREW PRIESTLEY, Stoke-on-Trent, Chemist.

A MEETING of creditors in this failure was held on February 16 at Stoke-on-Trent. The statement of affairs showed gross liabilities 1,249*l.* 10*s.* 7*d.*, of which 990*l.* 10*s.* 7*d.* was expected to rank for dividend. The assets were estimated at 459*l.* 12*s.* The debtor attributed his failure to having given too much for his business and bad trade. The Official Receiver reported that debtor commenced business on his own account at Hucknall Torkard in October, 1896, with a capital of 250*l.* At the end of nine months he closed the

business, sold the fixtures, &c., for 40%, and removed the bulk of his stock to Stoke, where he had purchased another business. Of the unsecured liabilities, 246% was in respect of the balance of the purchase-money of the Stoke business. The bankrupt stated that on January 29, 1897, his assets exceeded his liabilities by 190%. He accounted for his deficiency as follows:—Net loss arising from carrying on business from January 29, 1897, to January 29, 1898, 144% ; household and personal expenses, 150% ; law expenses, 125% ; lost in betting, 176% ; loss in purchase of Stoke business, 125%. Mr. C. E. Bullock, chartered accountant, Hanley, was appointed trustee, with a committee of inspection.

The following are creditors herein :—

	£	s.	d.
Bleasdale (Limited), York	24	3	5
Blyton, Astley & Co., Manchester ...	12	17	0
Bourne, Johnson & Latimer, London ...	11	5	8
Evans, Sons & Co., Liverpool	57	0	0
Gibbs, Cuxson & Co., Wednesbury ...	21	0	3
Harris, Jos., Hanley	28	0	0
Haslam, Elizabeth, Hucknall Torkard...	120	0	0
Haslam, Albert, Hucknall Torkard ...	80	0	0
Holt, Robert W., Altrincham	216	2	3
Southall, Bros., & Barclay, Birmingham	11	1	7
Sesson, Bros., & Co. (Limited), Hull ...	11	0	0
Yardley & Co., London	18	0	0

Partly-secured Creditors.

Crowther, Henry, Shipley	500	0	0
Steward, William Henry, Birstall ...			

Estimated value of security, 25%

The examination of the debtor was commenced in the Stoke Bankruptcy Court on February 22. Mr. W. F. Holtton appeared for the creditors, Mr. R. W. Day for the debtor, and Mr. C. E. Bullock was present as the trustee. In reply to the Official Receiver the facts given above were recited. The total unsecured liabilities amounted to 740%. 10s. 7d. The partly secured creditors were in respect of advances made on the security of an assignment of the debtor's interest under the will of a relative to which he was entitled on the death of his mother.

Replying to the Official Receiver the debtor said he kept no books in the Hucknall Torkard business. It was not a profitable business. He found that out in the first month.

Why did you continue it?—I cannot say, sir, I am sure.

Mr. Bullock: Mr. Registrar, I don't know if you can accept this kind of answer.

The Registrar directed the debtor to explain.

The debtor said a sale was pending, and he hoped to get another business. He borrowed 250% on his reversionary interest in October 1896, and 200% more between June and August the next year, after he had left Hucknall Torkard. He left the place in May because Messrs. Evans put a writ in for 56%. He sold the fixtures for 40%. He spent the money in betting on horses at Manchester, and brought the stock to Stoke.

Asked to explain what happened between May, when he left Hucknall Torkard, and October, when he came to Stoke, the debtor said he was knocking up and down the country—attending race-meetings, and so on. He said he expected the Stoke business to return 760% a year, but it only yielded about 3% a week.

You know that at the time you started the Stoke business you were hopelessly insolvent?—I do not think so.

Did you take the trouble to ascertain?—No.

How could it be otherwise, when you have admitted that you spent over 200% in gambling with borrowed money?—I do not know.

Why did you go into business again?—To redeem myself, I suppose.

But you had not the money to buy this business?—If satisfied, I could have found the money.

The debtor added that he borrowed 20% from Mr. Harris, of Hanley, after being sued in the County Court.

After a lengthy examination by Mr. Holtton and Mr. Day the examination was adjourned till March 23.

Re BERNARD JACKSON HUGHES, Stalybridge, Drysalter and Drug-store Keeper.

At a meeting of the creditors held on February 15 a statement of accounts was submitted showing liabilities

327%. 8s. 6d., and assets estimated to realise 1,288%. 1s. (net). Debtor was represented by Mr. Allen Howard, solicitor, Stalybridge, and the creditors appointed Mr. G. H. Lawton, chartered accountant, 14 Brown Street, Manchester, trustee, with a committee of inspection.

Re JNO. KELSEY, The Drug-stores, Doncaster Road, Stair-foot, near Barnsley, Herbalist and Drug-dealer.

The liabilities herein amount to 281%. 14s. 4d., and assets estimated at 103%. 15s. 11d., or a deficiency of 177%. 18s. 5d. The following are creditors:—

	£	s.	d.
Bleasdale & Co., York	53	12	6
Guest, Walter, Barnsley	72	2	4
Hirst, Brook & Hirst, Leeds	13	17	9
Kelsey, Gideon (executors of)	34	10	0
Morburn, T. A., Leeds	14	14	11
Sessions Brothers & Co., Hull	10	6	10
Bankers	39	0	0

Gazette.

PARTNERSHIPS DISSOLVED.

Bateman, H. E., and Kirsopp, T., under the style of Bateman & Kirsopp, York, surgeons, apothecaries, and accoucheurs.

Peacock, W. T., and Hadley, A., under the style of Peacock & Hadley, Craven Street, Strand, W.C., medical agents and medical accountants.

Smithard, C. L., and Morrow, R. W., under the style of Smithard & Morrow, Manchester, surgeons and apothecaries.

Thompson, R. B., and Ryden, A., under the style of J. A. Archibald & Co., Blackburn, aerated-water manufacturers.

Woods, G., and Goodier, J., under the style of Woods & Goodier, Preston, wholesale druggists and drysalter.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Fournet, Aristide Antoine Marie, Butineck Street, Marylebone, W., oculist.

Shearer, William, Camberley, mineral-water manufacturer.

ADJUDICATION.

Gibson, Reuben Leonard, Loughborough, chemist, druggist, and dentist.

Deeds of Arrangement.

Geary, William John, and Archibald Geary (trading as W. & A. Geary), 271 York Street and 22 New Lodge Road, Belfast, chemists and druggists. Assignment for benefit of creditors. Trustee, John McConnell, High Street, Belfast, accountant. Dated, February 16; filed, February 17. Liabilities unsecured, 260%. 13s. 3d.; estimated net assets, 80%. The following are scheduled as creditors:—

	£	s.	d.
Belfast Town Council, Belfast	5	0	0
Boileau & Boyd (Limited), Dublin	8	0	0
Breidenbach & Co., London	5	17	7
Campbell, John, Ballynahinch	7	0	0
Clarke, John, & Co. (Limited), Belfast	78	4	10
Daisy (Limited), Leeds	9	9	0
Gibbs, D. & W., London	6	15	6
Gibson, Samuel, Belfast	30	15	1
Johuston, David, Drumanness	8	0	0
McMullau, Thomas, & Co., Belfast	6	0	0
Malcolm, John, Belfast	15	0	0
Watson, John, & Co., Belfast	12	0	0
United Alkali Company, Runcorn	7	15	9
Bankers' claims	5	19	10

Gibson, Thomas, 317, Bury Road, Tonge, Bolton, chemist, & Trustee, John A. Palmer, 164 Corporation Street, Birmingham, accountant. Dated, February 14; filed, February 17. Liabilities unsecured, 219%. 19s. 10d.; estimated net assets, 100%. The following are scheduled as creditors:—

	£	s.	d.
Ashton & Sons, Southport	14	0	0
Bleasdale (Limited), York	12	0	0
Mould & Todd, Edinburgh	10	0	0
Sumner & Co., Liverpool	10	0	0
Tillotsons & Sons, Bolton	11	0	0

Stanger, Alfred Atkin, Fullers Hill, and South Market Road, Great Yarmouth, and Rumlham, Vanxhall, Great Yarmouth, mineral-water manufacturer. Trustees, Joseph Steel, The Market Place, Great Yarmouth, wine, &c., merchant, and another. Dated February 9; filed February 15th. Liabilities unsecured, 5,769*s.* 2*d.*; estimated net assets, 1,905*l.* The following are scheduled as creditors:—

	£	s.	d.
Arnold Bros., Yarmouth	77	0	0
Baker, —, Yarmouth	15	0	0
Bankers' Claims	750	0	0
Barnard & Son, London	1214	0	0
Barnes, W., Yarmouth	33	0	0
Bateman & Co., Yarmouth	10	0	0
Bottling Trade Supply Association, Nottingham ..	188	0	0
Botwright & Webb, Yarmouth	42	0	0
Buck J., Yarmouth	28	0	0
Bush & Co., London	111	0	0
Carter, R., London	570	0	0
Cash & Clare, London	12	0	0
Clayton & Jowett, Liverpool	170	0	0
Cook, A., Leeds	63	0	0
Croft, —, Yarmouth	73	0	0
Curtis & Son, Yarmouth	20	0	0
Davy, R., Yarmouth	28	0	0
Dehbage, W., Yarmouth	11	0	0
Duckworth & Co., Manchester:	42	0	0
England, —, Yarmouth	43	0	0
Great Eastern Railway	16	0	0
Great Yarmouth Gas Company, Yarmouth	14	0	0
Great Yarmouth Printing Company (Limited), Yarmouth	100	0	0
Hawes, J. R., Yarmouth	53	0	0
Henry, Mrs., Ipswich	16	0	0
Hubbard, W., Peterborough	15	0	0
Isler & Co., London	42	0	0
Jackman, E., Yarmouth	20	0	0
Jarrold & Sons, Yarmouth	36	0	0
Jewson, —, Yarmouth	28	0	0
Kennet, G. B., Norwich	479	0	0
Kerridge, H. E., Yarmouth	111	0	0
Kops Brewery, Yarmouth	24	0	0
Long, C., Toft Monks	40	0	0
Manchester Chemical Company, Manchester	44	0	0
Mann & Co., London	114	0	0
Mead, —	35	0	0
Midland & Great Northern Railways	21	0	0
Mills, J., Southtown	15	0	0
Morris, R.	23	0	0
Norfolk Daily Standard Company, Norwich	23	0	0
Norman, J. T., London	10	0	0
Pare & Co., Birmingham	11	0	0
Penny, A., Yarmouth	35	0	0
Pickford & Co., Yarmouth	12	0	0
Proudfoot & Co., London	14	0	0
Putterill, —, London	50	0	0
Riley & Co., London	15	0	0
Rushmer, W., Yarmouth	63	0	0
Slade, W. J., Northampton	48	0	0
Southgate, —, Yarmouth	23	0	0
Spelman, —, Yarmouth	10	0	0
Spreeve, T., Yarmouth	44	0	0
Steel, J., Yarmouth	200	0	0
Stevenson & Howell, London	149	0	0
Sykes, W., Leicester	21	0	0
Thompson, R. B., Yarmouth	59	0	0
Watson & Bean, Norwich	23	0	0
Woodcock, —	23	0	0

Business Changes.

MESSRS. BOOTS (LIMITED), cash chemists, Nottingham, have opened a new branch at Nottingham Road, Eastwood.

MR. W. L. BARRETT, of Sultan Road, Landport, Hants, has disposed of his business to Mr. F. E. Wheeler. The transfer was effected by Messrs. Berdoe & Co.

THE wine and spirit licence held by Mr. W. A. Mill, of the firm of Messrs. Shield, Mill & Jack, chemists, High Street, Arbroath, has been transferred to Mr. James Jack, pharmaceutical chemist, who has had the management of the business for some years.

ON March 1 Messrs. Clifford, Christopherson & Co., 21 Mincing Lane, will take over the agency for the sale of silicate of soda manufactured by Messrs. William Gossage & Sons (Limited), of Widnes.

THE Drug and Dispensing Stores (Limited), of 26 Queen Street, Wolverhampton, is to be henceforth described as Martyn's Stores (Limited). The consent of the Board of Trade has been given to this new title.

MR. T. R. GILES, M.P.S., late manager to the Chemists' Co-operative Society (Limited), has opened the premises of the late Mr. Appleyard, chemist, 50 Park Lane, Bradford, and has also acquired the business of Downham & Co., of 112 White Abbey Road, Bradford.

Trade Notes.

MESSRS. GOODALL, BACKHOUSE & Co., of Leeds, publish among our advertisements revised terms for their Yorkshire Relish and various household specialities, which come into operation from March 1.

MESSRS. BRYCE & RUMPF, 15 Fish Street Hill, have been appointed London agents for Messrs. John C. Steele & Co., 12 Victoria Street, Port Eglinton, Glasgow, the patentees and manufacturers of Steele's chloride of lime.

*Apr*opos of our recent article on "Chillies and Capsicums," Messrs. Finsler & Wheeler, 8 St. Mary-at-Hill, E.C., send us samples of paprika, the Hungarian tasteless pepper, used by bird-fanciers. They are beautiful specimens of the pod, which they obtain direct from Buda Pest.

WITH reference to the recent Board of Trade report on boiler-explosions, we may call the attention of manufacturing chemists to a placard which has been issued by the Manchester Steam-users' Association, 9 Mount Street, Albert Square, Manchester. It sets forth in full the general working of boilers, and gives "Warnings" to boiler-attendants, for whose benefit the placard is intended to be fixed in the boiler-house.

AN action was brought in the High Court, before Mr Justice North, between the proprietors of Hood's Sarsaparilla and a Mr. Hawkins, trading as Wood's Sarsaparilla Stores. Terms were agreed upon before the evidence was heard, the defendant undertaking to discontinue the use of the name "Wood" in his business, and to adopt some other name, bearing no resemblance to the name "Hood," and to pay to the plaintiffs 100*l.* towards their costs. The full terms of the order are quoted in an advertisement published this week.

OL. MORRHUE NOV.—The first arrival of the new season's cod-liver oil which we hear of this year is reported to us by Messrs. Allen & Hanburys (Limited), Bethnal Green, E., who on Wednesday morning had a consignment from their Lofoten factory landed, and we hoped to have seen a sample before we went to press, but dock authorities in this country are as slow as they are said to be. Messrs. Allen & Hanburys confirm our reports of the backward nature of this season's fishing, their experience being that so far little oil has been manufactured.

WE have received from Messrs. Rouse Brothers, 61 Charlotte Street, Tottenham Court Road, W., some particulars and samples of their concentrated preparations for the use of chemists. The various essences are a great convenience to busy chemists, as by simple dilution with the required quantity of spirit or water a perfected toilet-preparation is produced. We find the eucalyptus eau-de-Cologne essence to produce a really pleasant sick-room perfume, the proportion of eucalyptus being so adjusted as not to mask the eau-de-Cologne flavour of the whole. With each of the preparations full particulars and labels are furnished, these latter in some instances being quite works of art. In giving the formulas, minute details of putting-up are gone into—for instance, with the lavender-essence, the best way of producing lavender-salts in the various tints now considered the correct thing, is given. The formula for bay rum and cantharides hair-lotion is drawn up in such a way as to avoid the necessity of labelling it "Poison." The Florida water and toilet-vinegar made from the several essences are preparations than which we could not wish for better.

Westminster Wisdom.

THE PHARMACY BILL.

It is generally believed that the President of the Pharmaceutical Society has had some difficulty in getting a member of Parliament to concern himself with the measure which has been discussed so lavishly among chemists. It may be, however, that the competition for the honour has been so abundant that the difficulty has been one of selection. Anyway, the embarrassment has been got through. The Bill has been taken charge of by the Hon. W. F. D. Smith, the member for the Strand. Mr. Smith's particular qualifications as the representative of pharmacy in the House of Commons are not familiar to all of us, and with half-a-dozen doctors and one chemist and druggist in the House it does seem a little curious why the scion of the great bookstall-firm should be the chosen one. Moreover, where is Sir Charles Hall, the member for Holborn, which, we believe, is the Parliamentary division which includes Bloomsbury Square? The Bill was read a first time on Thursday.

THE EARLY-CLOSING BILL.

Sir John Lubbock's Bill, which was among the notices on Tuesday last, with Sir Charles Dilke's Shops Bill in close attendance on it, had no chance of being reached even if the House had not been counted out. There were nearly a dozen motions preceding it, each good for an evening's discussion.

ALCOHOLIC EXTRACTS.

We have reason to believe that Sir Howard Vincent will shortly put a question to the Chancellor of the Exchequer on the subject of German competition in pharmaceutical preparations, with a view of ascertaining whether manufacturing pharmacists here cannot be put on equal terms as regards the employment of spirit in such preparations as alcoholic extracts (see page 342).

THE COMPANIES BILL.

The Lords appointed on the Select Committee to consider the Government Companies Bill are the following:—The Lord Chancellor, Earls Leven and Melville, Vane (Marquis Londonderry), Dudley, Kimberley, Lords Belper, Wolverton, Revelstoke, Hillingdon, Macnaghten, Monckton (Viscount Galway), Farrer, Davey, James, and Aldenham.

THE LATE MR. WOOTTON-ISAACSON'S BILL.

Mr. Wootton-Isaacson, the Conservative member for Stepney, last week introduced a Bill "to amend the law relating to patent and proprietary chemical compounds." The Bill was to have been printed this week, and it was down on the notice-paper for Monday, and then for Thursday. But it was never drafted, and on Tuesday Mr. Isaacson died after a very short illness, pneumonia supervening on influenza. No one knows exactly what Mr. Isaacson sought to accomplish by his Bill. Mr. Joseph Howard, who was named as one of the supporters of the Bill on its first reading, tells us that Mr. Isaacson mentioned to him that one of his objects was to prevent the sale of inflammable hair-washes; but as this purpose can be fairly accomplished by the Petroleum Act, it would seem to be an insufficient reason for the Bill.

PURE BEER.

There is a Beer-materials Committee sitting, under the chairmanship of the Earl of Pembroke. On February 17 Dr. Philip Schidrowitz, F.C.S., gave evidence before this committee, and energetically declared that the statements often made as to the impossibility of detecting substitutes for barley-malt in beer were fallacious. He could see no reason, from a scientific point of view, to prevent light, sound beers, such as were apparently demanded in the present day, from being brewed from English barley without the use of substitutes. He quoted continental laws on the subject, and said neither he nor any of the authorities with whom he had conferred could see any difficulty in enforcing a law protecting the consumer from adulteration, inasmuch as barrels in use for beer made from substitutes could be branded, and any suspected beer could easily be traced

back to the brewery, just as was done at present in cases of suspected watering.

FOOD-ADULTERATION.

Mr. Kearley managed to bring his amendment to the Address to a head on Friday last, an hour before the debate concluded. He wanted an unconditional assurance that the subject of food-adulteration would be dealt with on the lines laid down by the Select Committee. Mr. Kearley is especially hopeful of the proposed Board of Reference. Mr. Lambert from Devonshire, Sir W. Foster from Derbyshire, Sir M. Stewart from Kirkcudbrightshire, Mr. Strachey from Somersetshire, Sir F. Milner from Nottinghamshire, and Mr. Warner from Staffordshire supported him. Mr. Chaplin said he had been for some time busily engaged in preparing a Bill, but it would be hopeless to try to pass one modelled on the report of the Select Committee. With excessive modesty Mr. Chaplin refrained from alluding to the amiable little measure which he honoured with his name at the end of last Session. Mr. Balfour expressed his pain and displeasure at Mr. Kearley's apparent doubt of the Government's intentions. The measure was promised in the Queen's Speech; of course, its introduction was subject to the condition of there being time for it. Everything was subject to that. This was the first time in the history of the British Parliament that the Government had been reproached for not dealing with a subject which they had named in the Queen's Speech. Mr. Kearley refused to be repressed, however, and went to a division in which 66 voted with him, and 171 against him.

MEMS. FROM MINISTERS.

A great deal of useful information is extracted from Ministers by means of the questions addressed to them by members, though a large proportion of the inquiries are trivial enough. Making a selection from those answered during the past week, we get the following:—

Worn Silver Coins.

In reply to Sir H. Howorth the Chancellor of the Exchequer stated on February 17 that it is the practice of the Bank of England to accept worn silver coins, provided that they can be identified as English coins of current issues. These worn coins are sent to the Mint for recoinage, the loss being made good from the Mint vote. A somewhat more stringent practice with regard to defaced coin was temporarily adopted, but is no longer in force. There is no disposition to be unduly rigid in this respect; but it is obvious that it is not the business of the Bank, nor of the Mint, to accept freely defaced coin, which is not legal tender under the Coinage Acts, or to encourage laxity on the part of the public in their treatment of coin in circulation. So we may know what to do with our extra-thin sixpences.

Is Sheep-scab Increasing?

Mr. Jeffreys, member for Basingstoke, was anxious about what he regarded as an alarming increase of cases of sheep-scab. His question indicated that 714 fresh outbreaks had occurred in January. Mr. Long said there was no cause for serious anxiety. There had been 714 outbreaks in January, which compared with 453 in December, and 233 in November; but there has always been a sharp rise in these months, followed by a corresponding decrease as summer approaches, and the returns for the past three months have, as a whole, been lighter than usual at this season. In 1897 there were 2,191 outbreaks, while the number in 1896 was 5,336, and in 1895 it was 3,092.

The Army Medical Staff.

This seems to be the one branch of professional activity which is not overcrowded. Mr. Brodrick told Sir Howard Vincent on February 17 that there were then 38 vacancies and only 21 probationers to fill them. The standard of qualification has not been lowered, but Mr. Brodrick intimated that some steps to put the department on a better basis will shortly be announced.

Foreign Postal-rates.

Mr. Hanbury, on behalf of the Postmaster-General, informed Mr. Fison on Monday that the Postal Union had

withheld consent to the proposed reduction of postage for places abroad from $2\frac{1}{2}d.$ to $2d.$ The reduction was promised by the Chancellor of the Exchequer contingent on the consent of the Postal Union. In default of a general reduction, her Majesty's Government will be willing to reduce the postage to $2d.$ to all parts of her Majesty's dominions; and on this point measures have been taken to ascertain the views of the colonial and Indian Governments.

Irish Railway-rates.

Mr. Balfour declined to admit a suggestion, contained in a question submitted by Mr. Field, that the railway-rates in Ireland for goods and passengers are the highest in the world. He was informed by the Board of Trade that the number of rates is so great and the circumstances in Ireland so different that they are unable to state how railway-rates there compare with those in other parts of the world. Nor was the Government intending to propose to take over the Irish railways, as Mr. Field had airily suggested they might do.

The Pharmacy Bill.

A COPY of the Pharmacy Bill, with a memorandum and explanatory notes, has been sent to certain "registered persons connected with the Society," mentioning that the Hon. W. Fred D. Smith, M.P. for Strand (Westminster) had undertaken to introduce it to Parliament, and requesting such registered person to assist the Council by at once writing to, or interviewing, the M.P. for his district or any other M.P. with whom he may have influence, soliciting his support.

The explanatory notes concern clause 3, and state how it came about that qualified chemists and druggists can only become Associates of the Society. The "memorandum" puts the argument for the Bill concisely and effectively, and for that reason we quote it in full:—

The object of this Bill is—

To render persons who have passed the "First" or "Preliminary" examination required by the Pharmacy Acts, and who are consequently registered as "apprentices or students" eligible to become "student-associates" of the Society instead of "students" as heretofore. The majority of the "students of the Society" were not educated in the Society's school, and the term is therefore incorrect and misleading.

To render every person whose name appears on the Register of Chemists and Druggists eligible to become a member of the Society. Two-thirds of the persons entitled to keep open shop as chemists are ineligible to become members, and they consequently have no direct representation on the Council of the Society.

To provide for the retirement of one-third of the Council every year by rotation instead of by ballot, as is provided by the Charter. The existing procedure makes it possible for a member of the Council to be balloted out every year.

And

To enable the Secretary to receive voting papers for the election of Council up to and on the day of election.

The Secretary's appeal seems to have been addressed to a very limited section of "registered persons connected with the Society," and on no principle of selection that we can make out.

The Midland Pharmaceutical Association have addressed the following letter to the members of Parliament for Birmingham and district:—

DEAR SIR,—We, the undersigned, representing the pharmaceutical chemists and chemists and druggists of the Midland district, wish respectfully to draw your attention to the enclosed Pharmacy Acts Amendment Bill, which is expected to be introduced into the House of Commons this week by the Hon. W. F. D. Smith, M.P. for Strand (Westminster), and to ask you to bear it in mind and to give it your favourable support.

We shall be glad to arrange for a deputation to wait upon you to explain details if you wish it.

Yours faithfully,
F. J. GIBSON,
President M. P. Association.
H. S. SHORTHOUSE,
Hon. Secretary.

The Derby and District Chemists' Association met on February 16 to discuss the Bill, Mr. J. A. Cope, President,

in the chair. A resolution, moved by the President and seconded by Mr. Hart, approving the Bill, was carried unanimously. It was also resolved that a letter should be sent to the local members of Parliament, signed on behalf of the Association, by the President and Hon. Secretary.

A meeting of the Halifax and District Chemists' Association was held on February 22 to consider a communication received from the Pharmaceutical Society. The meeting was a representative gathering, both Major and Minor men being present. It was proposed by Mr. Councillor Hebden, and seconded by Mr. J. B. Brierley, that the chemists of Halifax and District distinctly approve of the Pharmacy Bill. An amendment was proposed by Mr. Haigh, who opposed clause 3, and suggested that Major men ought to receive a fellowship if Associates were to be granted membership, the alternative being to remove this clause. There was no seconder. The proposition of Mr. Hebden was carried with but one dissentient. A deputation consisting of Messrs. G. M. Cobb, Seely, J. B. Brierley, Smithies (Elland), and Councillor Hebden waited on the M.P.'s for the borough, who promised to give the matter full consideration.

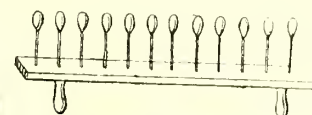
The Bradford and District Chemists' Association have decided to hold a meeting on February 29 to discuss and consider the Pharmacy Acts Amendment Bill.

At the meeting of the Glasgow and West of Scotland Chemists' Society on Tuesday, Mr. Currie said he had received from an official source in Edinburgh, a request that as the Bill was about to be introduced into the House of Commons, they in Glasgow and the West of Scotland should accord the Council their immediate co-operation. He gave his reasons for supporting the Bill, and urged that they should do whatever they could. Mr. Laing supported the suggestion, and Mr. F. Anderson Russell formally moved that the president and secretary of the Association be instructed to draw up an official letter explaining the position of the Association in regard to the Bill, and that a copy of that letter with the signatures of the office-bearers attached, be sent to every Member of Parliament representing the constituencies within the district embraced by the Glasgow and West of Scotland Association. Mr. W. McKellar thought the majority of the chemists and druggists in the Glasgow district were apathetic and indifferent in the matter. Mr. Currie also said that there had not been very much stir made about the new Bill. Mr. Laing seconded Mr. Russell's motion, which was carried unanimously. It was agreed also that Mr. Currie, as Local Secretary, should, along with his assistant secretaries, canvas the chemists in Glasgow with a view to their signing a petition in favour of the Bill.

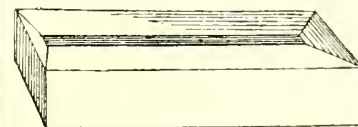
Capsule Mould and Dish.

BY A CAPSULE MAKER.

MOST of the capsule-mould handles are round (see CHEMISTS, AND DRUGGISTS' DIARY, p. 498), a form which is not the



most convenient by any means. Annexed is a form which I have found to be better, as it takes up less room when making large quantities, it can be handled just as easily, and the capsules can be pulled off with greater facility. The second sketch represents



the bath for the gelatine solution. It is not a water bath. I prefer not to use a water bath for keeping the solution liquid, but a longitudinal atmospheric burner, turned low down, and placed about a foot below the tin. The partial cover to the tin effectually prevents evaporation of water during the heating—a thing that is not provided for in open dishes. After dipping the moulds in the solution, they are lifted up, and when the drops form, allowed to touch the surface again.

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No. 2 Pure FULLER'S EARTH	12/ ¹ / ₂ owt.	Finest Pure TOILET OATMEAL SPECIAL	3 lb.
Pure LIQUORICE	10 lb.	Best Pure ARROWROOT	9 lb. in tins.

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CONDY'S FLUID.

ELEVEN INJUNCTIONS

With damages and costs, have been obtained against Chemists selling a liquid not manufactured by Condy and Mitchell, Ltd., in execution of orders for "CONDY'S FLUID."

HORLICK'S

MALTED MILK

FOR

Infants & Invalids.

34 FARRINGTON ROAD, E.C.

Fletchers' Concentrated Liquors

AND THE

NEW PHARMACOPŒIA.

See Diary, 1898, pages 21, 22, 23 and 24.



COMPANIES AND PHARMACY.

WE observe with regret that the name of Lord Herschell is missing from the Select Committee of the House of Lords appointed this year, for the third consecutive Session, to consider the Bill brought in by the Government to reform the laws relating to joint-stock companies. That eminent authority gave notice in the 1896 Session of an additional clause to Lord Dudley's Bill, which, if carried, would have prevented for the future the absurd evasion of the Pharmacy, Medical, and Dentists Acts, which allows companies to trade on the professional reputation secured by those statutes to the persons whom they were intended to define. For though pharmacists have had to bear the brunt of the invasion of companies, we can see no reason in law why limited companies should be so modest as to content themselves with the assumption of the dispenser's functions. Why they should not start prescribing-departments, and entitle themselves physicians and surgeons, we do not know. It is only unqualified "persons" who are prohibited from assuming the names or titles mentioned, or any name, title, addition, or description implying registration or qualification. A similar form of words occurs in the Dentists Act and in the Veterinary Surgeons Act, and nothing better could be wished than that some of the enterprising directors, who have made themselves notorious as cash or store chemists, would sacrifice themselves

a little further for the public weal by announcing alarming sacrifices in prescriptions—"Diagnoses of the first quality, a shilling each; three for half-a-crown," or something to that effect.

The basis of the Government Bill is the report of a Departmental Committee of the Board of Trade appointed in November, 1894, "to inquire what amendments are necessary in the Acts relating to joint-stock companies, &c." We gave details of the report of that Committee on August 10, 1895. Mr. Carteighe gave valuable evidence before it, showing how the Companies Acts were used to evade the Pharmacy Act, but the Committee did not consider that it came within the scope of their reference to suggest a remedy for this grievance, which they suggested "should be met by an amendment of the Pharmacy and Medical Acts"; but one of the clauses of their draft Bill, and a clause which has been adopted in the Government Bill, would give power to a Court to wind up a company if the Court was satisfied that the company had been formed, or that its business had been carried on, with the intent, or in such manner as to defraud, defeat, or delay the creditors of the company, or of any other company, or for any fraudulent or illegal purpose.

There was probably enough in that clause to prevent the formation of companies with the express object of doing what it is illegal for persons to do, but Lord Herschell's clause would have removed any possibility of such evasion. He proposed that

no company shall be registered under a name which shall include or consist of a name, title, sign, description, or addition which cannot by law be taken, used, or exhibited by a natural person unless such person has a personal qualification.

If any company shall take, use, or exhibit any name, title, sign, description, or addition which cannot by law be taken, used, or exhibited unless the person taking, using, or exhibiting the same has a personal qualification, such company shall (1) be deemed to be carrying on business for an illegal purpose within the meaning of this Act, and shall (2) be subject to the same consequences in all respects as though the company were a natural person taking, using, or exhibiting such name, title, sign, description, or addition without having such qualification.

No petition for the winding-up of a company, on the ground that it is carrying on business for an illegal purpose within this section may be presented except by or with the authority of a society or association empowered or entitled by Act of Parliament, Royal Charter, or letters patent to grant, confer, or inquire into the qualification entitling any person so taking, using, or exhibiting such name, title, sign, description, or addition as aforesaid.

We much fear that there is but little chance of the success either of this clause or of the Bill in any form. Whatever enthusiasm there may have been for it has pretty well died away, and there is a solid, but quiet, phalanx of company-men in both Houses who do not wish the present law interfered with. What we cannot help regretting is that the advice of the Board of Trade Committee has not been adopted. A clause like that of Lord Herschell's added to the Pharmacy Bill would, at least, have ensured universal enthusiasm for that measure among chemists, and would have rather helped than hindered its passage through Parliament.

THE PARIS EXHIBITION, 1900.

THE Exhibition will afford an opportunity, of which I trust full advantage will be taken, of asserting the commercial supremacy which this country has happily enjoyed for many years. . . . It is not so much an occasion for competition of British exhibitors among themselves, as for competition between British and Irish exhibitors and those of foreign countries. For this reason the display of similar or identical objects by different exhibitors should be avoided as much as possible, and efforts should be made to secure variety with a view to making the most of the space at our disposal. It ought not to be impossible either to form joint exhibits, giving as complete a representation as possible of particular industries, or for manufacturers to come to

some agreement among themselves which would bring about the same result. Such a plan, though it might call for some self-sacrifice on the part of individuals, would secure a degree of completeness which could not otherwise be attained, and would go far to promote the common interests of the industry as a whole.—*The Prince of Wales at Marlborough House, February 17.*

The Heir-Apparent is not satisfied with the provision which the Treasury has made for the representation of British and Irish industries at the Exhibition which France is to open in Paris in 1900. Germany has voted 250,000*l.* for her exhibitors, and little Switzerland 66,000*l.*, but the United Kingdom has set aside 75,000*l.*, and even the United States of America is content with a sum near our figure. H.R.H. trusts "that we may be able to prevail upon the Treasury to considerably augment the grant." No one who feels that the expenditure of public funds in promoting British trade generally is good business will object to this aspiration, but before a further appropriation is made it would be well to consider who will have the spending of it, and how it is to be spent. It is also desirable that the principle enunciated in the paragraph which heads this note should be perfectly understood before a single penny is spent of the money already appropriated.

At the Paris Exhibition of 1889 several groups of French manufacturers—*e.g.*, pharmacists and perfumers—made exhibits which may be regarded as the first attempt at the combination suggested by the Prince of Wales. In the Chicago Exhibition of 1893 the German Commissioners, with a grant of 2,000,000*m.* (100,000*l.*), carried out the same idea equally effectually from the artistic or architectural point of view, but with an official spirit and collective rigidity which had been absent from the French exhibits. In the latter case the exhibitors retained their individuality, looking after their own exhibits, and, while conforming to one rule of decoration, used their business-energies as they pleased. The German exhibitors were sufficiently altruistic to place themselves in the hands of a committee, and several industries had the privilege of seeing their products displayed in glazed cases, all methodically, even artistically, arranged and fully ticketed, and with a secretary or something in the centre to answer questions when he happened to be there. This "Deutschland über Alles" spirit did not seem to be altogether appreciated by some of the German exhibitors who were on the spot, and several of them told our representative at the Exhibition that they longed for the freedom which prevailed in the British Court, where the exhibitors in many cases were daily booking orders without assistance or interference from Commissioners. The Prince of Wales's suggestion may lead us in the German direction, which means for chemical and pharmaceutical goods locked-up glazed cases, a uniform scheme of decoration, and little direct results, unless our exhibitors are allowed business-ropes. The British Commissioners at the Chicago Exhibition seemed rather to favour the collective method of exhibiting, but remarked:—

"It is doubtful whether English exhibitors will ever agree to such a system, but if they do not they must be content to see public attention attracted by the better organisation of their rivals."

This was really a feeble apology for the ineptitude of the British Commissioners, who were so busy looking after their own comfort and non-commercial exhibits that the industrial sections were left unadorned and, until growling began, entirely uncared for. This is the proper time to recall the fact that of the 60,000*l.* voted to our Commissioners at Chicago 59,618*l.* 16*s.* 8*d.* was spent. Of this only 6,360*l.* 10*s.* 2*d.* was spent in construction, decoration and installation of all exhibiting-courts; 14,754*l.* 3*s.* 11*d.* was spent on Fine Arts (pictures, sculpture, &c.) and women's work; and the balance (38,504*l.* 2*s.* 7*d.*)

was spent on a house for the Commissioners, salaries, office-expenses, and receptions. It is now requisite that steps should be taken to prevent similar misappropriation of the public funds. The Prince of Wales's regard for the national industries dominated his utterances at Marlborough House last week, and that regard, we feel sure, will induce him to see that a more reasonable distribution of the appropriation is made at the Paris Exhibition. We do not advocate that exhibitors of merchandise and manufactures should be subsidised by the Commissioners, but when there is money to fling amongst artists, women's section, and officials, it would good for British Industries if more of it were reserved for framing the picture which they contribute.

OL. MORRHUÆ NOV.

"THE fishing is almost a failure," cabled our Bergen correspondent last week. Rarely since Norway displaced Newfoundland in supplying us with cod-liver oil has a message like that been received with such unconcern; and the reasons are not far to seek. The oil is uncommonly cheap, the weather is abnormally mild—consequently the consumption of oil insignificant—and the stocks in Bergen and elsewhere (including London) of last season's oil are exceptionally large. Yet there are also reasons for watching the progress of the Lofoten fishings narrowly. They are now half over, and not much more than a week's catch of cod has been landed. The gales have kept the fishing back at least a month, for cod in their myriads begin to immigrate into the Norwegian fjords early in January for the spawning in March. They are particularly fond of those parts of the coast off Moldefjord, west of Romsdal, lat. 62°-63°, and at Lofoten, north-west of Nordland, lat. 63°. There the fishers have their harvest in the "Gydefiske," or spawning fishery, from January to the beginning of April. Then there are no more cod. By that time they or other tribes have steered north to Finmarken, where spawning takes place in April, and when that is over the "Loddefiske" begins and lasts to the end of June. The Lofoten fisheries are in all respects the most important, the oil being most highly esteemed and the yield infinitely greater than the others, as is shown by the following figures representing the average number of barrels of steam-refined oil made annually:—

Gydefiske		Loddefiske
Lofoten	Romsdal	Romsdal
13,740	5,964	2,351

Up to Thursday of last week the yield of steam-refined oil (the quality of which has yet to be determined, but is believed to be low), was only an eighth of what it was in the corresponding week last year. It would be wrong to assume from this that the yield for the season will be below the average. There are few things so uncertain as cod-fishing. Dr. Peckel Müller relates that

"In the year 1887 it happened that the weather of Lofoten was exceedingly stormy during practically the whole of the fishing-season, and, whether on that account or not, a rather abnormal thing happened: one of the shoals of cod left the banks and entered the Ostnæs fjord in the island of East Vaagö. It was a most fortunate occurrence for the fishermen, for they were able to let down the gear in the sheltered waters of the fjord when it was impossible for them to venture out to the banks. The shoal entered the fjord early in January, and, as soon as the news got abroad, about 2,500 boats congregated at the spot, and were successful in catching over *thirteen millions* of fish. This immense number was, however, a mere nothing as compared to the total in the shoal."

This is a fair indication of what may happen any day

until the spawning is over next month, and it justifies our suggestion that it is yet too soon to form conclusions upon the present season's fishings. There has been a tendency that way in London this season. Prices have been fixed and sales made at low figures, yet none of the oil is in sight. All the prices—even up to 77s. 6d. per barrel for "the best quality"—are purely speculative, and are mainly fixed by the large stocks of last season's oil and the comparative absence of buyers of the new. It has to be remembered that the season for home-consumption is fast coming to an end, and, if March is not a cold month, retailers will begin to replace cod-liver oil with blood-purifiers and diarrhoea-mixtures. Then holders of old oil will have to carry their stocks over the summer, with the probability that it may ultimately be unsaleable, except for currying-purposes. Taste in cod-liver oil has improved considerably of recent years, and the drinker of it knows by the eructations which an old oil causes that he must purchase the next bottleful elsewhere. Therefore buyers fight shy of old oil, and the majority of those who have to retail it are more careful in the purchase than they are of any other article which they stock. The man who does a good cod-liver-oil business cannot afford to lose it, and is content to wait until the season is nearly over before he decides upon his purchase. This year he has an opportunity of exercising his patience, and that at no very great risk, for nothing but a miraculous failure of the Lofoten fisheries can send the prices up to half what they were two years ago, when 12l. a barrel was paid for old oil before the season's fishing was halfway through. A somewhat firmer tendency has set in in London this week, and those who have sold at low rates are by no means eager to book orders at these rates, and only take them subject to Norway acceptance.

JAMAICA GINGER.

ONE of the most readable papers which we have seen for a long time is printed in the current issue of the *American Journal of Pharmacy*. It is entitled "In the Land of Ginger," and is written by Mr. F. B. Kilmer, who has resided in Jamaica for several years. It contains the most graphic account of ginger planting and harvesting which has been printed for many years, and from it we draw the following particulars. Between 25,000 and 50,000 of the Jamaica population depend for their living upon the ginger-crop. The ginger is of two kinds—"blue" and "yellow"—but the plants are botanically indistinguishable; the "yellow" is the better root, being brittle, and more pungent than the "blue," which is tough and fibrous. These, again, are subdivided into "plant" and "ratoon" ginger—the former is ginger planted each season, and the latter is a return crop, secured by leaving a part of the rhizome in the ground at the harvest-time. Ginger is planted in March and April. Pieces of the rhizome, each with an "eye," are planted. Few planters have settled farms; they clear a piece of the forest, burn the weeds, and plough the soil a little, then do the planting. When once in the ground the plant appears to require little attention, except that it must be well watered, and as there is an abundant rainfall in Jamaica no labour in this direction is required. Attempts are rarely made to fertilise the plant, manure being scarce in Jamaica, as there are no stables. The most that is done is to plough in the weeds and cover the ground with banana waste. As an experiment, watering the beds with sea-water and seaweeds has yielded good results; but the average planter is quite indifferent to scientific cultivation, and this is bad for him, because the soil is impoverished by a few ginger-crops,

and "dried-up streams, general barrenness—in fact, a wilderness—marks the progress of ginger-culture." The deep-black soil of the virgin forest is where the best quality is produced, and to grow ginger under this condition involves the destruction of large areas of woodlands by fire. This burning is considered of great importance, as potash and other mineral matters contained in the ashes are deposited to sweeten the ground, while the fire also destroys insect pests. In consequence of the many thousands of acres of land destroyed and abandoned in this manner in Jamaica, the local Agricultural Society has been at work since 1895 on worn-out land, and with the aid of suitable artificial manures have had very encouraging results in reclaiming the land. The Society is extending their operations by securing larger plots and giving aid to planters by furnishing manures, &c. The "ginger season," or harvest, is from March to January. When the stalk withers and the bloom has departed, the rhizomes are twisted out of the ground with a fork, an operation which takes long practice to become expert in. After the soil and fibrous roots have been removed, the root-stalk is thrown into water, when it is ready for the peeling-operation. "Peeling-matches," in which the planter gets all his friends to join, are a time of much merry-making in the sable community. The peeling is mostly done by experts with the aid of a simple knife. So far peeling-machinery has been a complete failure. The operation is an all-important one, as may be seen from examination of a transverse section of ginger. First there is an outer striated skin, under which are numerous layers of thin-walled cork cells. The oil contained in these cells in fresh specimens is very pungent, exceedingly aromatic, and almost colourless. As this corky layer contains the greatest amount of oil and resin cells, the deeper the peeling is made so much more of these substances are carried away with the epidermis. When peeled, the roots are thrown into water and washed; the purer the water the whiter is the product. Sometimes lime-juice is used in the wash-water, which gives a whiter root, but as the lime-juice contains saccharine matter and pectose, it prevents drying, and mildew follows. After washing, the rhizomes are dried in the sun, and in from six to eight days they become thoroughly dry. At sunrise the ginger is put out upon a barbecue (platform of stone or concrete), turned over at mid-day, and taken in at sunset. The average loss of weight by drying is nearly 70 per cent. Experiments have been made with calcium chloride as a drying-agent, but the result was not equal to the native method, and the same may also be said of American fruit-evaporators, in which wood is used as the source of heat. It has been asserted that it is a common practice to bleach ginger with the fumes of chlorine or sulphurous acid, but Mr. Kilmer states that no instance of it is known in Jamaica, as the planters are unintelligent, and are opposed through prejudice to innovations. Mr. Kilmer tried chlorine gas as a bleaching-agent, but the product was of a dirty yellow colour. When the crop is fully dried it is carried, mostly by women, to the place of sale, which may be from five to forty miles distant. Here it is sold by the "heap," not by measure or weight. A "heap" of ginger varies considerably, according to the law of supply and demand. If the "hands" are finely shaped and large, there are fewer in the heap; if small, dark, and snarly, the pile is made larger. Should the price of ginger in London or New York advance it is because the heaps in Jamaica have been diminished, and should the price go down the heaps have become larger. The exporters of ginger assort the produce into four or five grades, the highest being the large-sized hands of light and uniform colour, the lowest being the ratoon finger sorts, which are small, soft, and lacking flavour. Some of the hands weigh as much as 8 oz.

The amount of ginger exported from the island during the last ten years was as follows:—

	lbs.		lbs.
1887	1,121,827	1892	1,822,531
1888	1,141,877	1893	1,526,884
1889	1,002,653	1894	1,672,384
1890 (½ year) ...	554,193	1895	1,736,460
1891	1,219,197	1896	1,960,609

Half of this goes to the United States. An average crop may be estimated at from 1,000 to 1,500 lbs. dried ginger per acre, and in some cases 2,000 lbs. As already mentioned, the Jamaica Agricultural Society is improving the methods of cultivation by fertilisation, and from information recently to hand it is predicted that the crop now about to be gathered will probably be a record one, partly due to an abundant rainfall. This will mean lower prices for the ginger-planter.

THIS IS TELEGRAPHESE.

The doctors, who are doing their best to repress unregistered practitioners, have another task before them. A spiritualistic medium has lately been supplying prescriptions supposed to have been written by a celebrated doctor who some time ago entered the spirit world, but who seems anxious to continue his terrestrial practice. If this be not unfair competition, it is difficult to know what might reasonably be regarded as such. A *bonâ fide* chemist would naturally object to make up a prescription alleged to have been written by a defunct person, but it seems that apothecaries who believe in spiritualism are not averse to compounding medicines from these eerie documents. A Mahatmathical Pharmacopœia will in all probability be the next addition to our list of text-books. So a *Daily Telegraph* writer thinks.

REPTILIAN RESEARCH.

A correspondent, who watches closely the scientific proceedings at our Universities, sends us the following interesting item which has not yet, we believe, been published:—

Professor Simon Peter, the well-known archæologist and professor of natural history, has just made a notable discovery in the fields of reptilian research. Speaking to a learned body at Oxford the other night, he announced that he had succeeded in finding another addition to the reptile kingdom, which he had named the *Sanguisuga Seeandee*. It was allied in some indefinite manner to the natural order *Sanguisuga*, but was particularly obnoxious to another reptile of the same order, the *Sanguisuga Pharmaceuticulis*. They were all aware that the latter lived chiefly by feeding on pharmaceutical students, but it appears that the later-observed specimen lives an independent existence, and is altogether of different habits. The *S. Pharmaceuticulis* has so strong an antipathy to the new species that it loses no opportunity of attacking it, with the evident idea of causing its ultimate extermination.

COUNCIL COURTESY.

We have sometimes complained of the invariable unanimity which prevails in the Pharmaceutical Council. As a compensation, we shall have to turn our attention to the Medical Council. The latest recruit to that distinguished body (Mr. Victor Horsley) is doing what in him lies to secure unanimity there. This result will be ensured when everybody agrees with or submits to Mr. Victor Horsley. There has been a rather acrimonious controversy carried on in the *Medical Press* between Mr. Horsley and Mr. Brudenell Carter, who has rather chivalrously undertaken to defend the President of the Council against Mr. Horsley's attacks. We are not competent to comment on the merits of the discussion, but we notice, with some amusement, that in this week's *Medical Press* Mr. Horsley replies with no lack of

vigour to Mr. Carter's last letter; and, at the same time, as we gather from an editorial note, "acting in conjunction with his solicitor," has intimated to that journal that "any further publication of Mr. Carter's foul abuse" of his (Mr. Horsley's) honour must be at the editor's risk! The editor heroically declares that no consideration of that kind would induce him to abstain from publishing further letters if of interest; but he is evidently no sportsman, for he comes to the conclusion that no useful purpose is to be gained by prolonging an envenomed correspondence, and therefore announces that the discussion must end. Perhaps Mr. Carter has a solicitor also.

INSTITUTE OF CHEMISTRY.

The Council of the Institute of Chemistry have adopted the following resolutions with reference to enlarging the scope of their examinations. These resolutions have a considerable interest for pharmacists who are, or are likely to become, Fellows of the Institute:—

(1) Candidates for the membership of the Institute of Chemistry requiring testimony of their knowledge in therapeutics, in view of qualifying themselves for the appointment of public analyst, shall be required to pass an examination in therapeutics, pharmacology and microscopy, on or after presenting themselves for the Final examination in section E (the analysis of food and drugs and of water, including the assay of alkaloids, and recognition of impurities, adulterations, and substitutions). (2) It will be open to existing members wishing to receive the certificates of competency in therapeutics, pharmacology, and microscopy, to present themselves for the examination in these subjects. (3) The examination will be conducted by examiners appointed by the Council, and the scope of the examination, indicated briefly, will be as follows:—Candidates will be required (a) to recognise specimens of any drug or poisonous chemical ordinarily to be found in commerce, or employed for technical purposes in the arts or manufactures; (b) to detect, by microscopical or chemical examination, adulterations, substitutions, or impurities in food and drugs; (c) to show a general knowledge of the therapeutic effects of ordinary drugs, and of the quantities of such drugs and poisonous chemicals which, taken internally, would be injurious or fatal to man.

BABY-INCUBATORS.

We do not know if any up-to-date chemist has added baby-incubators to his stock of medical requisites, but as these articles are becoming more and more recognised it is natural to suppose that the pharmacist will be called on to supply them, his stock already including a very miscellaneous assortment of baby-requisites. There is no doubt that incubators have proved of great benefit, and have saved many lives which must otherwise have been sacrificed. The principle of the apparatus is simple: it consists of a glass-sided box with delicate arrangements of valves and thermometers for the purpose of admitting and regulating the supply of fresh warmed air. Incubators are only used for prematurely-born infants, and then only in cases where the child is debilitated. Constant attention is of course required, and wet-nurses must be at hand every three hours to supply nourishment in a natural manner. Artificial feeding is not resorted to in these cases, as the introduction of another uncertainty in the fickle life of the infant is not desirable. As will probably be remembered, at the Victorian Era Exhibition last year some dozen of these incubators were in use in the section showing the advance of medicine and science during the present reign. The arrangements were here under the best conditions, and every care taken to supply pure air, &c., to the tiny occupants. This section proved a considerable attraction to the general public, and has caused enterprising showmen to add an incubator section to their shows as an additional attraction. The *Lancet*, in protesting against this practice, points out that the proper organisation of such a show necessitates a considerable outlay and more care than can be reasonably expected from

the average showman, and the undesirableness of making an exhibition of human infirmities is once more called attention to. On these points there can be no question. What we are concerned about is the means of obtaining the apparatus. The principal druggists' sundries houses, we believe, are prepared to supply them, and as they are articles always wanted in a hurry, pharmacists should take care to obtain beforehand all the particulars required.

INDIAN PLANT-NAMES.

Under the title "Recreations of an Indian Official," Sir George Birdwood communicates to the *Journal of the Society of Arts* an interesting list of the Indian plant-names, which he divides into six sections, viz.:—

Section A.—Names descriptive of the general qualities, or of the "habit," of plants.

Section B.—Names indicating the uses of plants.

Section C.—Plant-names of sinister significance.

Section D.—Names expressive of the beauty and charm of plants, as also of their religious and poetical associations.

Section E.—Latin generic and specific names of plants of hidden Indian origin.

Section F.—Indian names of plants derived from names of places.

The following examples will suffice to show those interested in plant-names the nature of Sir George Birdwood's contribution:—

Kino.—[*Pterocarpus marsupium*] "flesh"-coloured, from its gum: *c.f.* "carnis"!

Tala, tara, tad.—[*Borassus flabelliformis*] "fixed," the Palmyra tree. *Toddy*—*i.e., tari*—originally the fermented juice of this, and various other palms, better understood in the West, as denoting that incomparable compound of whisky with hot water, sweetened with sugar, which the congenial Scotch have now introduced to the utmost corners of the English-speaking world.

Mushti [*Strychnos nux vomica*] "fatal."

It would be interesting to know why Africans called the original kino "kano."

NON-PROVERBIAL METHODS.

Dr. Charles Lippincott Mitchell, Philadelphia, is a living disproof of the old proverb about the rolling stone and the moss, and a good example of the rapid and frequent changes which are somewhat more common in the United States than here. The *Alumni Report* gives a biographical sketch of him. He was born in Philadelphia forty-four years ago, entered the drug-trade in 1868, and has made a score of changes since. We gather them together as a curiosity:—

- 1868.—Began study of pharmacy with S. S. Bunting.
A few weeks after apprenticed to E. Garrigues.
A few months later went to Rance Brothers & White as an office-clerk.
Transferred to laboratory owing to taste for experimenting.
- 1870.—Appointed chief of laboratory.
Student in Philadelphia College of Pharmacy.
- 1872.—Graduated there.
- 1875-6.—Quizmaster there.
- 1876.—Partner with Professor Remington in retail drug-store.
- 1877.—Bought a store of his own.
- 1878.—Student of Jefferson Medical College.
- 1880.—Graduated as M.D.
Began manufacture of soluble medicated gelatines.
- 1882.—Gave up retail, and built a factory.
Helped to found a Medico-chirurgical College, and became professor of chemistry in it.
- 1883.—Retired from chemistry chair with Ph.D. degree.
- 1884.—Began to take an interest in photography and to give lantern-lectures.
- 1890.—Became Vice-President of the Blair Camera Company, and manufactured photo-chemicals.
- 1892.—Retired from the company, and added photo-chemical manufacturing to his own business.
- 1897.—Business converted into the Standard Chemical Company (Limited), of which he is Chairman.

Apart from all this, Dr. Mitchell has a long string of published papers standing to his credit. It looks a busy life that he has led.

Kino.*

"The officinal variety (of kino) is now almost unobtainable. Can its place be effectively supplied by others met with in commerce?—Question No. 49 in the B.P.C. Blue List" (*C. & D.*, August 28, 1897).

ACCORDING to Pereira (p. 1,841, Part II., vol. ii., ed. 1853), Dr. Fothergill, in 1757, described, under the name "gummi rubrum astringens gambiense," an astringent gum supposed to have come from the Gambia. In 1774 it was introduced into the Edinburgh Pharmacopœia as "gummi kino," and in 1787 into the London Pharmacopœia as "resina kino," and was, moreover, so described in the third edition of "Lewis's Exp. Hist. of the Mat. Med.," by Dr. Aitken, in 1784.

The source of supply then has since been identified as the *Pterocarpus erinaceus*, of Poirêt, a West African tree which attains a height of 40 to 50 feet, and is known in the Mandingo language as "kano." The juice, known by the Portuguese as "dragon's-blood," exudes naturally from cracks in the bark, and soon hardens in remarkably brittle blood-red tears, which in chemical characters and solubility are almost identical with the gum of *Pt. marsupium*, Roxb.

An inferior gum of somewhat similar properties, known variously as bengul, palas, pulas, or butea kino, and derived from the *Butea frondosa* and allied species, and for which there is still a large sale, was long confounded by European druggists with genuine kino. Only quite recently, indeed, some thousand pounds was purchased by the traveller of a large firm, presumably for manufacture into a genuine and thoroughly reliable article. Real gum could have been obtained nearly as easily and almost as cheaply.

Of late years a considerable and growing trade has been done in the various eucalyptus gums (especially that of *Eucalyptus resinifera*), known as Australian, Eucalyptus, or Botany Bay kinos. The best varieties agree closely in appearance and behaviour with true kino. The substance is mostly collected by the sawyers and wood-splitters, being found in cavities within the trunks of trees of all sizes. It is at first a viscid liquid, but dries into reddish-brown masses or grains, thin fragments of which appear amorphous and of a garnet-red hue. The best grades are obtained from *Eucalyptus rostrata*, *E. citriodora*, and *E. corymbosa*.

Pterocarpus marsupium (Roxb. "Fl. Br. Ind.," ii., 237), the Indian or true kino tree, is a large deciduous tree, extending from Ceylon through Southern and Western India, to as far North as Banda in the North-Western Provinces, and the Rajmaht Hills in Behur—i.e., to about 20° North. It grows to the greatest perfection over the Western Ghauts, throughout Travancore, Malabar, South Canara, and parts of Coimbatore. It furnishes a most perfect and invaluable timber, suitable for any in or out door work, it being unaffected by sun or wet; while, owing to the large amount of essential oil it contains, white ants and other insects give it a wide berth. The fracture, which is good, exhibits a wiry splinter, and the wood is eminently well suited for ordnance purposes. The sapwood is small, and the heartwood, which takes a fine polish, is brown, hard, and durable.

The leaves form an excellent fodder, which is in great demand. Little or nothing seems known about the essential oil above referred to. The juice, or gum kino, is obtained by making a perpendicular incision, with lateral ones leading into it, in the trunk of the tree, at the foot of which is placed a vessel to receive the juice.

In Canara little cups made of leaves are used, and the gum there collected assumes the shape of concavo-convex cakes, 3 to 4 inches in diameter, which are broken up and garbled by the dealers.

The main supply, however, is from the Government forests in Wynaad (North Malabar). At the foot of the Ghauts lies Anjurakandy, the factory at which the first supply is supposed to have been prepared for the market, early in this century, from juice brought down from the country above the Ghaut.

At page 218 of the British Pharmacopœia the juice is directed to be "inspissated without artificial heat," and at

page 330 of Squire's "Companion" the same instructions are given. The reasons appear to be the fear that artificial heat might cause a deterioration in the astringency of the drug, and also, perhaps, damage the colour.

In Flückiger and Hanbury's "Pharmacographia," p. 195, and at p. 358, Part I., vol. vi., of Watt's "Dictionary of the Economic Products of India," and in other works, it is stated that the gum, soon hardens on exposure to air. For some reason which is still unexplained it appears that of late years the gum has been boiled in the forest, and has arrived in the low country in a semi-fluid state, looking somewhat like badly-made and partly-set red-currant jelly. It takes in this condition a very considerable time to harden, and loses, roughly, one-third of its weight in the process—e.g., 700 lbs. exposed during the fervent heat of May in bowls and dishes had not completely dried until the end of August, the yield then being 487 lbs.

When dry, Malabar kino consists of dark, blackish-red, brittle, angular fragments, rarely larger than a pea, and easily splitting into still smaller pieces, which are amorphous under the microscope, translucent, and of a bright garnet hue. They sink in cold water, in which by agitation they are partly soluble, the solution having an astringent taste, and throwing down a pale, flocky deposit, which is dissolved by heat, only to be again thrown down in more voluminous forms on cooling.

In the "Pharmacographia Indica" (vol. i., p. 464) it is stated that neither Hindu nor Mahomedan medical writers appear to notice Malabar kino.

Rumphius calls the tree *Pterocarpus indicus*, and states that the gum, which looks like dried blood, cures diarrhoea, and that the leaves are applied to boils, &c.

Ainslie in his "Materia Medica" (ed. 1826, p. 185) states that the drug is but slightly known in India.

Bearing in mind that, as stated above, the African name for *Pt. erinaceus* is "kano," it is curious that the Persian name for the drug should be "Khuné" while in the Central Provinces one of the names for butea gum is "kinta."

In addition to its medicinal virtues, on which it would be superfluous to dilate here, the gum is said to have been used in the manufacture of certain wines [which is the purpose for which most of the kino now imported is employed.—Ed. *C. & D.*]. It should also prove of value in tanning and dyeing. The bark yields a brownish-red colouring-matter, which produces delicate reddish fawns with tussur silk, and the so-called "Nankin" with cottons.

In the *C. & D.* market report for the week ending October 28, 1897, an entry is made regarding some "fine Cochin grain" kino that was offered. This most probably was a portion of the 700 lbs. referred to above, and which was never anywhere near Cochin.

It is this want of local knowledge that perhaps explains the dearth of true kino in the London market, and which is otherwise somewhat difficult to understand. The ports of outlet for the various tracts would be Cochin and Alleppi for the native state of Travancore; Calicut and Tellierry for Malabar, in which would be included the main sources of supply—namely, the Nelliampathy Hills, the Nilambur Forests below and on the Ghauts, and the extensive reserves in Wynaad. The produce of Coimbatore would also find its way to Calicut, as being the nearest port, while gum collected in South Canara would be shipped at Mangalore, but means of communication in that district are backward, and the roads are indifferent.

In some of the Government forests (notably those of Coimbatore) the gum has never even been collected. In others the tapping, &c., is done by the rangers under the supervision of the district forest officers, while in yet others the right to tap the trees, subject to the condition of its being done properly and without causing undue damage, may be easily obtained. The right is put up to auction, together with that of collecting other "minor forest produce," such as beeswax, &c. The cost of collection cannot be heavy, for two or three years ago the Government medical stores at Bombay were supplied by the district forest officer of North Malabar at 3s. per lb., and about the same time he was glad to sell a second supply at 1s. per lb., so that it seems his difficulty was to find a market.

It would appear, therefore, that, were inquiries made in the right direction, there should not be much difficulty in obtaining a fair supply for the drug-market, while, on a

* This article is contributed by a gentleman who has had much experience in the collection and preparation of kino in Madras, but who prefers that his name should not appear.—Ed. *C. & D.*

large demand being created by an increased use of the gum in the arts, many a coffee-planter would be glad to grow *Pt. marsupium* as a shade-tree in place of some of the less profitable timber now left standing.

Formaldehyde.

By GEORGE ROE.*

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

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

In hospital dispensaries and establishments where a large amount of dispensing has to be done in a very short time, it is necessary to prepare beforehand many preparations which, in some cases, must last a considerable time, and, as may be expected, a preservative of some kind must be used, such as alcohol, salicylic acid, chloroform, and now formaldehyde. The addition of alcohol is costly, and, unless a large quantity be added, the preparation becomes sour, owing to the action of micro-organisms and natural ferments. Salicylic acid is objectionable in many ways. Camphor and chloroform have a taste and smell which many cannot tolerate, so there still remains to be found a preservative that can be used without having any particularly objectionable points. I have for a considerable time used chloroform, and, experimentally, formalin, in all cases where my experience has taught me that a preservative must be used, such as in making fresh infusions and decoctions sufficient to last perhaps weeks, in the solutions of the alkaloids; mixtures which, if dispensed as written, would keep only a few days, whereas they are often expected to remain good for two or four weeks; mixtures which contain organic substances in which bacteria grows with extraordinary rapidity. Those containing ergot are very common in my case; these at times assume the appearance of mucilage in a few hours, and here something must be done. Almond-mixture is one which ferments after a few days, and patients often have enough to last them two weeks, and nothing keeps it so well as formalin—1 in 10,000 [of the 40-per-cent. solution] will keep it sweet for weeks and cause no inconvenience to the patient. Milk is another fluid which gives trouble in hospitals, it often goes bad during one night; but as small a quantity as 1 in 50,000 will keep it for that time and give no unpleasant symptoms to the patients. Milk required for future analysis can be kept sweet for some weeks by adding 4 or 5 drops to each 100 c.c. It is stated to have the curious effect of slightly increasing the total solids in some cases, due probably to the conversion of the milk-sugar into cyalactose.

For infusions and decoctions 1 in 1,000 to 1 in 3,000 answers best; but, taking into consideration the powerful effect formalin has on animal tissue, and how intensely irritating is even a weak solution, it is doubtful if the former

strength can be adopted until its action on the human economy is better understood. When it is used for concentrated preparations the case is somewhat different, and no harm can possibly result from its use. It has the advantage of having little taste or smell in such small quantities, and thus differs from chloroform. For infusion, which it is an advantage to keep one or two weeks, it is decidedly useful; but when required to be kept longer nothing answers so well as chloroform, one in 500 or 1 in 1,000, such as for gentian, calumba, quassia, either single or four times the strength of the Pharmacopœia; these when diluted have little of the smell or taste of chloroform. When patients are put on digitalis, jaborandi, and a few others, and only small quantities of stock need be made, formalin answers well. Its power to destroy the bacteria of fermentation and putrefaction is its strongest point, and is thus of great service in pharmacy for preparations which have a tendency to ferment. In breweries it has been found useful on account of its arresting secondary fermentation, although not interfering with the resulting quantity of alcohol produced; it also reduces the acidity, and thus enables the process to be conducted at a lower temperature. It cannot be said it is systematically adopted in this country for this purpose, but it has been used with marked success on the Continent. Antiseptic agents were used to preserve beer and other fermented fluids from the ravages of aerial ferments long before Pasteur explained the true cause of fermentations and were protected under patents; hydrofluoric acid was one.

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

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

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

It will be found most useful for disinfecting rooms, and

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

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

Antipyrine and Spirit of Nitrous Ether.

By CHAS. CASPARI, JUN.

THE author communicates a paper on this subject to the *Pharmaceutical Review*. It is well known that ethyl nitrite decomposes in presence of water with liberation of nitrous acid, and aqueous mixtures containing antipyrine and spirit of nitrous ether acquire a green colour, owing to the nitrous acid and antipyrine reacting to form isonitrosoantipyrine. The author recommends an excess of alkali bicarbonate to be used in such cases, this preventing the coloration, and not decomposing the antipyrine. He proceeds to say that in April last a correspondent of THE CHEMIST AND DRUGGIST, of London, commented on a prescription received by him calling for—

Antipyrine	15 gr.
Wine of antimony	1 fl. dr.
Spirit of nitrous ether	2 fl. dr.
Syrup of tolu... ..	3 fl. dr.
Solution of ammonium acetate	3 fl. dr.
Chloroform-water sufficient to make	3 fl. dr.

remarking that, after various attempts to avoid the formation of green colour, he had observed that when the antipyrine was dissolved in the chloroform-water and then added last to the other ingredients no green colour was developed. The prescription and remarks were copied by several pharmaceutical journals in U.S.A., and pharmacists may have been misled by the suggestion offered by the British correspondent into the belief that chloroform actually prevents the formation of isonitrosoantipyrine. To show that chloroform does not prevent the reaction, the writer made a large number of experiments last summer and begs to submit the two following as conclusive:—When antipyrine is dissolved in pure chloroform, or chloroform-water, and spirit of nitrous ether of slightly acid reaction is added to either solution, a green colour is at once produced; if the spirit of nitrous ether be previously carefully neutralised, the development of the green colour in both solutions occurs only after a time; if an excess of potassium bicarbonate be dissolved in the chloroform-water solution, no green colour whatever is produced, even after standing for several days. The conclusion arrived at in the above case points to the fact that in all probability the correspondent of the *C. & D.* used a solution of ammonium acetate which was decidedly alkaline in his final experiment; when such an alkaline solution of ammonium acetate was used by the writer in compounding the above prescription, no trace of green colour was discernible, no matter in what order the ingredients were added, the spirit of nitrous ether, however, in each case being added last, or, at least, mixed with the ammonium-acetate solution before the addition of the antipyrine.

Spirit of nitrous ether is gradually losing favour with the medical profession, and is at best an unsatisfactory preparation on account of its decided instability. It could well be dropped from the Pharmacopœia, the official requirements being rarely met with in the supply furnished by pharmacists, and the ordinary commercial article often sold in bulk out of carboys is of very questionable value, at times containing less than $\frac{1}{2}$ per cent. of ethereal nitrite.

WHEN using ether to separate cod-liver oil from an emulsion, in analysis, it should be borne in mind that if made with eggs the oil in the egg will be extracted along with the cod-liver oil and cause a slightly increased percentage.

American Notes.

(From a Correspondent.)

AN INGENIOUS METHOD OF ADULTERATING HONEY is being practised by some of the Californian farmers. Instead of mixing glucose with the honey, as is commonly done, the cans in which the honey is shipped are first filled about one-quarter full with glucose of a fairly thick consistency. The honey is then poured on the top of this.

SINCE THE CONSOLIDATION OF THE VARIOUS TOWNS which compose Greater New York, considerable interest has been aroused in the regulation of the new Board of Pharmacy. The two cities of New York and Brooklyn are the only ones entitled to representation on this Board. The Brooklyn men, with a view to securing adequate representation, allied themselves with the German Apothecaries' Association, a body of men who are connected with no college, nor represent the druggists of the cities in any way, and whose membership is confined entirely to citizens of German origin. This Association had demanded recognition on the Board, solely because they were Germans. They allied themselves with the Brooklyn men, and in this way secured representation on the Board. Then they threw over their Brooklyn friends, and allied themselves to the representatives from the New York College of Pharmacy, their reward for the treachery being the Secretaryship of the Board, the President being from the College of Pharmacy. Brooklyn is furious.

TWO WHOLESALE FIRMS are at present having a bad time. First are Messrs. Schieffelin & Co., who caused intense antagonism by their attitude on the phenacetine question. As is well known, this drug can be purchased in Canada for about 32c. an ounce. Messrs. Schieffelin & Co. (the selling-agents for the holder of the American patent) import it from Germany, paying a duty of 25 per cent., and sell it wholesale at \$1 per oz. As a natural result, an enormous amount of smuggling is carried on. The firm is constantly proceeding against druggists, either for smuggling, or purchasing smuggled phenacetine, and they have no difficulty in getting a verdict in their favour in the lower Courts, beyond which retail druggists seldom go for lack of money. The other firm which is under the ban of the retailer is the American branch of Merck & Co., whose model retail drug-store in New York was described in THE CHEMIST AND DRUGGIST Summer number of 1897. The store was originally intended as a sort of pharmacy for the use of retail druggists, and was not intended to enter into direct competition. Apparently, this "pharmacists' pharmacy" has not proved a success, for the manager of the store is now engaged in an active canvass amongst the medical profession with a view to securing a certain amount of patronage for it. The firm is also advertising in the daily press to the public, and these facts have served to arouse retail druggists, in particular the Germans, to a state of fierce antagonism. Various associations in Greater New York have taken the matter up, and resolutions have been passed condemning the firm, and urging all retail druggists to boycott it. At a meeting of the King's County Pharmaceutical Association recently, it was also resolved to send a copy of the resolution to the original house in Darmstadt.

THERE is nothing more disconcerting than to know that someone else knows that we don't know what we ought to know.

WOOD OIL.—The Consular Department at Washington have been collecting information relative to the source of wood oil, so extensively used by the Chinese as a varnish. Woodwork in China is almost universally varnished with this oil, and on native crafts on the inland waters of China the oil takes the place of paint. Owing to its poisonous nature, it is suggested as a useful component of ships'-bottom-compositions for preventing marine growths. The exploitation of the wood-oil tree promises to reveal the secret of Chinese india-ink, as it is stated that the sort produced by burning the wood oil is the basis of the most expensive kind.

A Profitable Extra.

By A CAPE PHARMACIST.

LIKE their brothers at home, the chemists in the colonies have the same problems to solve, and one chemist in Kaffraria has made the fruit-market a field for scooping in a little extra towards his yearly balance. Three years ago "lemons" were sold in the Kaffrarian markets for 6*d.* a sackful, and the supply was so great that if they did not go at that price the farmers would rather leave them than take them back to the country. The idea occurred to the chemist that it was a pity for good stuff to go begging for the want of a little trouble, so he bought up a few sacks, and after



getting a few natives to cut, squeeze, and strain them, he obtained a juice which, when diluted and sweetened, made an excellent cooling drink. He had "struck it" on a miniature scale. More sacks were bought in the markets at a low figure, and the sweetened juice was put up in wine-bottles as "lemon-squash," to retail at 1*s.* 6*d.* per bottle. The public caught on to the idea—also to the drink—and when they found that a fine beverage was to be got without the trouble of squeezing their own lemons, their liberal patronage followed. All this was done with very little trouble to the chemist, for he could superintend the making of the squash in the back store during the ordinary routine of business, and native labour was cheap. The first year 2,000 bottles were sold as a trial trip. The second year the farmers, finding that their lemons were going well, put up the price to 6*d.*, 1*s.*, and 1*s.* 6*d.* per hundred (400 in a sack), and even as much as 4*s.* per hundred was paid towards the end of the season. The sale had gone up, and hotels and refreshment-bars had quite a run in "squash and soda," "B. and S. with a dash of squash," &c. The wholesale firms found that it paid to push the colonial-made article, and the packing of the beverage had to be considered. The bottles were bought from the natives, who go round to the hotels in the place bargaining for the empty whisky, brandy, and champagne bottles, making a profit of 2*d.* or 3*d.* on each dozen. These are thoroughly cleaned and drained, and are ready for their new contents; one dozen being packed in a case with straw. The *modus operandi* in preparing the squash from the fruit is remarkable for its simplicity. The lemons are taken whilst quite fresh (the colonial fruit differs from that seen at home by being of a rugged exterior and thick skin) and cut up into fours. These are then passed through a squeezing-machine of the corrugated-roller principle, the juice running into a pan at the bottom, the pulped skins, &c., passing into a waste receptacle. The juice is strained, and is then prepared by boiling in an enamelled-iron pan. A combination boiler made by Messrs. Hayward Tyler & Co., imported a few months back, has proved a great success, 30 gallons of squash being made at a time. The liquid is again strained and bottled for sale, the capsuling

and labelling being done by white girls. The accompanying illustration shows the arrival of a batch of lemons, which are cut, squeezed, prepared, and bottled within twenty-four hours. Native labour being a variable quantity, Kaffirs are taken on by the day or hour, so that they are only employed when actually needed, thereby saving unnecessary expense. Over 300,000 lemons have been used up during the present season, and arrangements are now made in advance with the farmers and fruit-growers to take their whole crop, large or small, at a contract-price. The growth of the popularity of this squash during the three years has been marvellous, and to-day wholesale orders are being sent to all parts of Cape Colony, Orange Free State, Transvaal, Natal, and Rhodesia. It was in great demand during the recent festivities in Bulawayo. It may reach England yet, overland by way of Bulawayo and Cairo; its success has made its promoter so sanguine. The carriage on the article is not heavy, and there is no duty to pay, as it is of colonial manufacture. The industry is an example of an "extra" pure and simple, and when chemists at home or abroad can make their own fruit-cordials, prepared lime-juice, and kindred beverages, and push the sale of the same in the hot seasons, they will find it far from being *infra dig.* to the calling of a chemist, and, what is of most consequence, it is an extra that pays.

Advertising Ideas.

ALL OUR FAULT.—If ideas are sent to us for comment in this column advertisers must not object to adverse criticism sometimes. Mr. Turver, Chester, whom we accused of being too flippant, replies:—"When I only read a contemporary of yours my advertisements were irreproachably serious. Since reading your lighter (and more readable) journal regularly I have developed the flippant vein you censure, which will come out at times. On your head, sir, rests the blame! By the way, the academically serious ones never paid, the other kind did." We smile.

Mr. W. L. Clarke, of Forest Hill, writes:—"Having just received a new lot of leeches from Messrs. Fitch & Nottingham, I put them in the window in a 2 lb. bottle. The curiosity and remarks they have caused would suit some of your up-to-date readers who wish to arouse a little excitement, as leeches are not so familiar with the public now as they once were."

We have received a copy of Coverdale's Medical Guide and Cash Price-list. Mr. George Coverdale has nine establishments altogether—three at York, and one each at Ripon, Rotherham, Lincoln, Grantbam, Scarborough, and London. This pamphlet, we presume, is circulated at all of them. As it contains a lot of outside advertisements it is probably published with a profit, but we do not admire the way the "Medical Guide" has been compiled. No reader will fail to see that it is only a series of advertisements for Coverdale's specialities (with an occasional good word for an advertiser thrown in) rather than a *bona-fide* attempt to give sound medical advice. The publication is, however, testimony to the business enterprise of the firm.

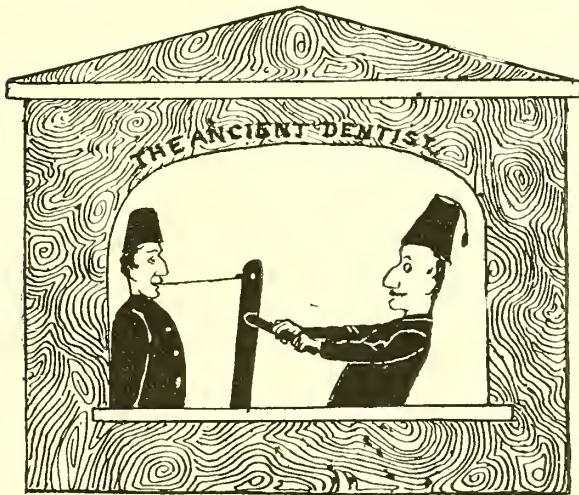
Mr. Rex Blanchford, chemist, Richmond, publishes a *Richmond Hill Magazine*, with local news and advertisements added on to a collection of stories, sketches, &c. Mr. Blanchford announces that the entire proceeds of the sale of the magazine will be devoted to local charities. The revenue from advertisements will, we presume, remain in his hands.

A Dispensing Alphabet has been issued by Messrs. Walker & Harris, chemists, Canterbury. The capitals in the advertisement in all cases begin a line:—Accurate dispensing, Best quality, Correct weights and measures, Delivery prompt, Elegant finish and Fresh drugs Give satisfaction I have nothing to do with Inferior drugs. Just charges let customers know that Low prices May be No Obstacle to high quality. Personal attention of Qualified proprietor Reduces risk of error. Special drugs quickly obtained.

Thorough workmanship Unmistakable. Varnish, silver and sugar coating for pills and Waxed paper for powders preserve their properties. Excellent quality only. You may depend on Zealous attention.

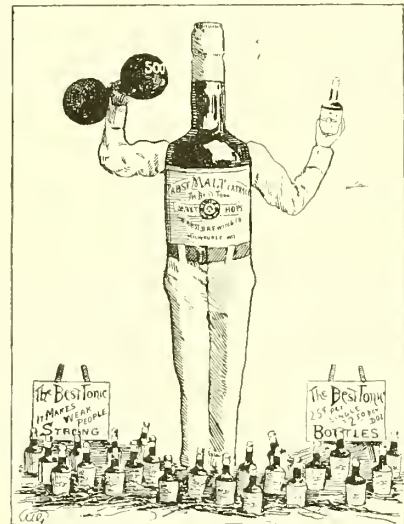
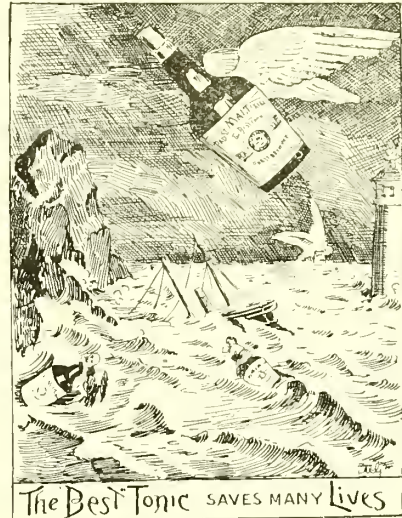
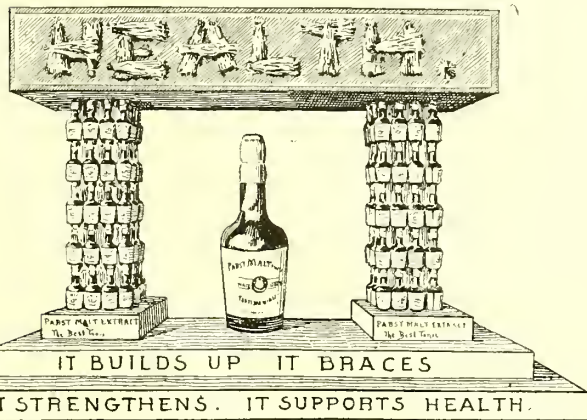
Mr. Box, chemist and druggist, Plymouth, took advantage of the visit of Dr. Nansen to advertise that "the popularity of Dr. Nansen, the Arctic Explorer x x x x, is equalled only by Box's Pills!"

Mr. C. Norfolk, who has a "Botanic Dispensary" near Dalston Junction Station, makes a striking display in his window of the comic side of tooth-extraction. One feature is a moving figure representative of ancient dentistry. This we show in the annexed sketch. Then he has an enormous tooth nearly 2 feet long, which is described as Gulliver's tooth. In a depression on it the Lilliputians have built a city. The announcement is made that teeth smaller than this one will be drawn for 6d. Mr. Norfolk informs us that



these devices seem to have considerable effect. He began in 1892 by drawing teeth free before 9 A.M. That year he extracted for payment 92. In 1893 he dropped the free extraction, and for payment drew 130. In 1894 the paid extractions amounted to 190; in 1895, to 460; in 1896, to 1,016; and thus year, up to November 9, they had reached 1,653. He also draws the teeth of his customers' children free before 10 A.M., and says he finds this attention highly appreciated.

The following designs represent American windows dressed to advertise the Pabst Malt Extract in response to an offer of a prize advertised by the proprietors of the article in question.



The publisher of the *North Eastern Daily Gazette*, taking advantage of the scare caused by the outbreak of smallpox in Middlesborough, has obtained a clever advertisement by arranging to have every copy of the paper disinfected as long as the epidemic lasts. He thus claims to have converted the daily issue into an agency for the widespread distribution of disinfecting influences, and to have provided to all the readers of the paper the means of safeguarding their homes and persons.

"GOUTY PEOPLE should not take salt." So Dr. A. P. Luff said in a recent series of lectures, and other practitioners confirm his view. Dr. Fosbery, of Reading, also points out that salt greatly interferes with the digestion, and gives (*B. M. J.*, page 465) figures about albumen and meat-fibre digestion with pepsin and salt to prove his statement.

A PATIENT'S HUMOUR.—A firm in the Midlands had a prescription for some unusual medicine in tablet-form. They promised to supply them on the third day, but for some reason did not get them till the fourth day. Meanwhile the following was received from their customer on a post-card:—

DEAR SIRS,—I have not yet received the "tablets" you ordered. Shall I forward you the addresses of my executors before it is too late? It would be a pity for you to have a medicine for which there is so little demand returned to you through the Dead-letter Office. Yours truly.

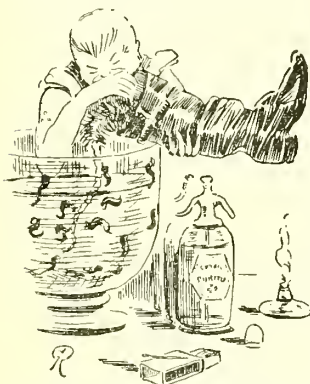
Confessions of an Errand-boy.

WHEN my father brought me to Mr. Ruebarb's shop, to take the job of errand-lad, he says to me "Billy, my boy, larn all yer can, and speriment, and sum day thou' turn out a grate chi-mist." One of the first jobs master set me to do was to catch them narsty worms called leeches—in the Latin tunge called "Hi-rude-o," and a good name to. On my first go hoff while I was scraping one of these beasties hoff the side of the hay-quarium, another divil gets onto my bare harm and he draws blood, he does. "Says I to myself, "Billy! these hi-rude-o must be copped in a



si-hen-tific manner in future." So I rigs up han hap-a-rat-us which cost nothink, and it hansard admirably. A picture of it is on the side:—

One of Mr. Ruebarb's long boots hand a corkscrew. Some-think had to be sack-ri-ficed. So I says to the great old cat in the cellar, "Hi-o-doe-form (because he always announces hisself), I must make use of thee," so I dropped a handful of cotton wool into the bottom of master's boot and poured some chlor-hi-form on, hi jams the boot over pussi, leaving his tail hout, passed the corkscrew threw the top of the boot to keep him from getting out. My hobbect in doing this was to use that there cat's tail for bait for them narsty savages the hi-rude-o. Directly the cat's tail went into the water undreds of hi-rude-o came swimin round and snuffing hawful, but did not stick—the air of that cat's tail tickled their noses that much that they coffed hoff. Han hidea now struck me, I must burn hoff the air,



and use bare meat, so I dips puseye's tail in the meth-i-lated spirite and haplies a light. This time the hi-rude-o bit like deviles, and I have never had no bother since with them. I ope to see this method in the new B.P.

X-PER-I-MENT No. 2.



drug was pure. This is the reason the drug got hits name.

FRED. REYNOLDS.

The Dream of Pethuel the Cutter.

ON that night all the ghosts of the martyred past
Were arrayed in the light of the moon,
And the soul of Pethuel Wilkins quaked,
And death he craved as a boon,
For he thought of the Ways, and the Means, and the End,
All loathsome and unfair,
And his heart was seared with the burning shame
As his life and its deeds lay bare;
For he stood confessed in his lone unrest,
As a were-wolf in his den,
Who has lived his day like a beast of prey
And has fed on the flesh of men.

He thought how, in days of his guileful youth,
He had tried the First—and failed,
But the news lay hid in his crafty heart
And was ne'er to the world unveiled,
For 'twas then that he stole his dead friend's name
And bluffed the Registrar,
And skulked his way in a dead man's shoes
To the pharmaceutical war;
So with heart afire, in the vain desire
To grasp the Minor prize,
He had slaved and stewed, and the ice-god wooed,
As do men who to honour rise.

But the puny brain of the earthy elod,
Who but thinks of the *l. s. d.*,
Is not fit to hold all the things to be known
By the man of pharmacy.
So Pethuel went, and came as he went,
For they ploughed him—reeking naught
Of the bitter hate and vengeful fire
Consuming every thought.
Now the peacock-brain, it rebelled at the strain
Of another trial, 'tis said;
So with wily ruse (and the help of the Jews)
Rose "Pethuel Limited."

Pethuel groaned as the wraith of the master kind,
Who had taught him all he knew—
A pharmacist and a gentleman—
Uprose to his startled view:
Rose up 'mid the wreck of his ruined hearth,
And behind him a hundred more,
Both young and old and sick and hale,
Who the mark of the wolf-fangs bore.
For our cutter bold ne'er fights as of old
Were pirates wont to do;
And the weakling fist of the cash chem-ist
Never hits out square and true.

He dreamt of the army of men and of maids
He held in thrall with his gold;
Of the lies to be said and the tricks to be done
So that "Pethuel's Pills" be sold;
Of the men who *might* have been pharmacists,
And have worked as their betters do,
But became Italian warehousemen
For the sake of the two pound two.
Let us weep for the brain which shrinks from the strain,
And grovels for *l. s. d.*,
For 'tis not fit to hold all the things to be told
To the Master of Pharmacy.

W. C.

DOCTOR: "Did you give the children the physic I sent last night?" FOND MOTHER: "Yes, sir." DOCTOR: "And how are they to-day?" FOND MOTHER: "Well, the little un's very bad, to be sure. But it don't seem to 'ave done t'other un no 'arm as yet."—*Retail Druggist.*

AMERICAN MISTLETOE (*Phoradendron flavescens*) is a yellowish-green woody parasite growing in Delaware and Maryland on the branches of sour gum and maple trees. The derivation of its name—"phor" = a thief, and "dendron" = a tree—sufficiently indicates its parasitic habit.

OL. MENTH. PIP. AMER.—One-third of the total production of peppermint oil in the United States goes to Germany. According to official statistics in 1895, 25,650 kilos. of American oil of peppermint, valued at 493,820 n., were imported into Germany *via* Hamburg alone, and in 1895, 31,840 kilos., valued at 542,130 n.

Ancient "Drink-cures."

THE following notes are extracted from a lecture delivered recently before the Society for the Study of Inebriety by Dr. William L. Brown. The doctor first alluded to the divinities of drink, and showed how the custom originated in religious and social observances. Medical men of ancient time had much the same alcoholic conditions to deal with as prevail now. Their services were sought for producing a physical condition which rendered the "bibone" immune and drink harmless to him. For this purpose they diluted, mixed, and spiced wines, they prescribed "safety-wreaths" to be worn round the heads of drinkers, and sometimes, for those engaged in drinking-contests, round their bodies. They employed ointments and perfumes to prevent or cure headache, and for ladies a "drink-dress." They obtained also many

VEGETABLE REMEDIES

The Egyptians believed in boiled cabbage for carrying off wine from the stomach, and ate large quantities of it before heavy drinking. Lettuce and other garden herbs were approved for their juiciness, refreshing and cooling properties, and for driving out the vapours of wine. Pliny mentions leeks, eolewort, the lesser centaury, ivy-berries, arum-root, rue-leaves, apples, pears, and quinces. The fruity acids were ever favourites for preventing the ill effects of wine. Acids were supposed to sharpen the vital spirits, and consequently were used to prevent the drowsiness and sluggishness of intellect which heavy drinking induces.

THE CUSTOM OF DRINKING VINEGAR

as a cure for drink is of very ancient origin. Vinegar and salt applied to the temples was the usual restorative after the stupefying drinks given to deaden sensibility to pain in the tenth century. Hugo of Lucca (1298) dipped a sponge in strong vinegar and held it to the nostrils of the patient. Shakespeare alludes to its use in one of his sonnets:—

Whilst like a willing patient I will drink
Potions of eyesel! (vinegar) 'gainst my strong infection.

Brodie, in his "Breviary of Health," mentions "Syrupus acetosus de prunis," as useful in drunkenness, which comes by "debility of brain and head."

The use of the crab-apple in drink is another example of the continuance of this custom, and it may be that apples and oranges so bountifully spread on the Christmas festive board are remnants of this ancient practice. Pliny alludes to the apple, quinee, or pear, as "easing the headache" (Bk. xxi., c. 20), and gives them the properties of "repressing vapours flying up into the head, causing distemperature of the brain, as a surfeit of wine or strong drink." Acid wines were thought to inebriate less than the sweet wines. Seneca recommends (besides vinegar, alone or diluted) sour apples, sour plums or prunes, sour milk, and quinces. This use of the crab was common in Shakespeare's time. Puck says:—

Sometimes lurk I in the gossips' bowl
In very likeness of a roasted crab.

And among the popular minstrelsy of early England, the toper used to sing with rollicking glee:—

I love no rost, but a nut-browne toste
And a crab layd in the fire.

RUE.

The action of essential oils was specially represented by the rue-plant. Powdered rue in water was praised by Pliny—"Is a man disposed to drink freely and to sit square at it? Let him before he begin, to take a draught of the decoction of rue leaves, he shall bear his drink well and withstand the fumes that might trouble and intoxicate his braines" (Bk. xx. c. 13, page 57). In Sextus Placitus we learn that the herb rue acted on sore and swelling of the eyes, was a usual remedy for stupor, for dimness of vision, and for headache. "If you eat the flowers of rue," says Pliny (c. 25, page 13), "it is a good preventive of drunkenness, driving out the wine by the urine, and preventing it from being absorbed"—quite a modern explanation of the diuretic proper-

ties of oil of rue. Milton, in "Paradise Lost," mentions the effect of rue on the optic nerve—

Thou purged with euphrasy and rue
The visual nerve, for he had much to see.

The gin-drinker of the present day sometimes still drinks "rue gin" as a preventive of the ocular effects of gin-drinking, which in itself is reputed for its diuretic principles.

BITTERS

are still used; but for this purpose of quenching the fumes of wine their origin is lost in antiquity. This important group included, in ancient times, such things as wormwood in raisin-wine, bitter almonds, either whole in the form of an emulsion, peach-stone kernels and leaves of the peach-tree, hops, crocus, bitter roots, and mullet. Those who held that drunkenness arose from the acid part of the wine gave antacids and bitters. The action of "bitters" was a therapeutic puzzle. Hops and crocus, peach-stones, and many bitters acted very well, but Dioscorides (Bk. i. c. 25) shows that absinth, though a bitter stuff, actually caused drunkenness when given in raisin-wine. Similarly, he showed that opium was a bitter which also produced a kind of intoxication. Still, bitters were much prized, and are largely used nowadays, in various forms, for qualifying the intoxicating power of drinks. Angostura, peach, hops, Dutch bitters, and even quinine-bitters, are not despised by those who wish to avoid the consequences of over-drinking. Peach kernels and leaves are doubtless helped by the small quantities of prussic acid which they contain. Oily substances and emulsions were thought to operate by reason of the fatty acids which they contained. Brodie, in the "Breviary of Health," already quoted, recommends the "use of laxative meats and purgatives if need do require, and beware of superfluous drinking, especially of wine and strong ale and beer; and if any man do perceive that he be 'dronke,' let him take a vomit with water and oyl, or else let him go to his bed to sleep." This seems to be a development of the Grecian unguents, and reached its highest point in therapy about 1594, when Hugh Platte, gentleman of Lincolnshire, gave in his "Jewel House of Art and Nature" a recipe "for the help of such modest drinkers as only in company are drawn or rather forced to pledge in full 'bolts' such quaffing companions as they should be loth to offend." "Drink first," says he, "a good large draft of Sallet Oyle, for that will float upon the wine which you shall drinke and suppress the spirits from ascending unto the brain. Also what quantity soever of new milk you drink first, you may well drink thrice as much in wine after without danger of being dronke, but," he adds, "how sick ye shall be with this prevention I will not here determine."

WATER.

Perhaps the simplest remedy, and the one now most commonly used in Scotland at the present day, is that referred to by Pliny in his 23rd Book. "Passing good it is," says he, "to drinke faire water other whiles between. In like manner such as use ordinarily to be drunk and are lightly never sober shall not do amisse to take a good draught of cold water presently upon their liberal pouring in of wine, for it will forthwith dispatch and discuss those fumes which cause drunkennesse." Some water had more effect than others in achieving this result. Salt water was supposed to aid digestion and keep the wine from harming the head. There was an Arcadian fountain whose water was reputed to make those who drank it so abstemious of wine that they could not even bear the smell of it. "Let a man," says Pliny, quoting from Varo, "drink of the Lake of Clitorius he shall take a misliking and loathing for wine" (Bk. 31, c. 2). Galen recommended barley-water, wheat-water, and toast-and-water to prevent the stomach from being too much upset. This cure has recently been revived. The water-cure is perhaps the best that history has yet found, either as a diuretic, an emollient, a diluent, or a means of unloading an overcharged liver of its effete matter after the toil of a prolonged London season.

MINERAL CURES.

Theophrastus says that great drinkers when they drank for a wager used to take the powder of pumice-stone before

setting to. Concerning this Pliny observes that they must "quaffe lustily indeed; for unless they be filled with drinke they are endangered by the foresaid powder." It is remarkable that in the poetry of the Norsemen from the earliest times—say, up to the thirteenth century—which Professor York Powell has classified and translated, similar advice is given in these words: "Whenever thou drinkest ale, take earth's strength as antidote, for earth acts against ale, fire against sickness, oak against binding of the bowels, the eorn ear against witchcraft, the rye against the biting sickness, runes against charms; earth drinks up floods."

The mountaineers in some Alpine regions have still belief in the efficacy of certain kinds of sandy soils, and use them for the same purpose as did the ancient Romans.

Pliny mentions the gold cure:—"Gold that was brought in a place to do a shrewd turn, wash it well and sprinkle those to be cured with the water." In Pomet's time (seventeenth century) "its use gave a great opportunity to mountebanks to cheat with impunity. This sort of cheat is what generally succeeds best; for patients are prepossessed in favour of such medicines as carry great names and have a specious appearance. It is cried up for a miracle, and the effect is attributed to the gold." The Arabians first administered gold internally, thinking, as many vainly imagine nowadays, that it must have great virtues—a mere physiological absurdity. An interesting analysis of the modern gold drink-cure can be found in THE CHEMIST AND DRUGGIST, January 30, 1897.

VAPOURS IN THE HEAD

were "repressed" by the remedies mentioned in Galen, "De Compositione," Bk. ii., in his chapter on "Drunken Headache" (*Dolore capitis ab ebrietate*). He approves of roseacium, alone or with vinegar, ivy-leaves, cabbage-juice, and fomenting with warm cabbage-leaves put round the head and tied on. Eius recommends the centaury-plant boiled, the hartshorn, and the seeds of the *Verbena recta*, to be drunk in water. Galen recommended sleep as "Nature's sweet restorer" in these cases, after which his directions are, "Wash him in a bath of fresh water." This was Mr. Weller's method of dispelling the feverish remains of a previous evening's conviviality and of making himself feel less like a walking brandy-bottle. They employed stimulating drinks, mostly composed of wines, in ancient countries. In England Christophero Sly called out, "For God's sake a pot of small ale," to fulfil the friendly office assigned by a more cultured age to brandy-and-soda to slake those parched throats and soothe the shaken nerves that follow over-devotion at the shrine of Bacchus.

The lecture concluded with an account of the legislative cures which had been attempted throughout the centuries. The true cure was the cultivation of a spirit of manliness, reliance on self-control, a strict obedience to the laws of physiological righteousness, and a modification of the social system in this country which would cause repression, imprisonment, and drunkenness, to be despised. The habitual inebriate should be treated as suffering from a physical disease.

A Physician in Chinatown.

NEW YEAR'S DAY amongst the Chinese comes about the middle of January, and while this year's celebration was at its height news came to the New York Chinese Colony that Quong Pong, the special favourite of Joss and intimate associate of the nine gods of healing, had died in the Hudson Street hospital, whither he had been borne a week previously in the conveyance known in Chinatown as the "Rattler." Pong, the famous physician of Chinatown, was suffering from consumption, a disease to which the Orientals quickly succumb. The death of one who in his day was an object of wonder to the whole of the Oriental colony did not, however, interfere with the New Year's festivities. Most of the buildings in the colony were illuminated with many-coloured lanterns; tomtoms and cymbals were beaten to drive away the evil spirits, and to appease Joss, who, if he is not properly propitiated with presents, will come and sit on your throat while you sleep. From time to time, over and above the noise of the New Year's celebration, might be heard

the lamentations of Pong's close friends whom he had deputed to perform the last honours to him. These honours consisted in carrying gifts to the Joss-house, and repeating the thirty-seven particular prayers. This done, the two alternately played on a great gong one stroke for each year of the physician's life. They then repaired to the physician's house, outside which they raised a song which was presumably music to the Orientals, but which to foreign devils sounded ten degrees worse than a tom-cat crying in the night. Then a placard was affixed to the door stating that the great physician had gone to join his august ancestors in the flowery land; also that the thirty-seven particular prayers had been said, and that Joss had smiled upon the future of the departed soul. A polite request was also appended notifying his friends that they might leave offerings at the door. These offerings were very numerous, as Pong was a widely-known physician, and had (so rumour states) effected many a cure. The cures were supposed to be due to his powers of magic, and to his association with the deities of medicine. He was also deeply learned in herbs, and was noted for a concoction of great avail to counteract the effects of a too free indulgence in opium or alcoholic liquor.

His reputation as a physician was chiefly based on two wonderful cures. As a rule, he would not go to his patient's house, unless the case was so serious that the patient could not be moved. The most famous of his two cures was that of Ah Wong, who was seriously ill with fever. Pong, when called, occupied seven hours in silent appeal to the gods, in the patient's room; at the end of which time he beat a fierce and mystic tattoo upon his sacred gong. The sound aroused the patient from a stupor to a condition of extreme hunger and thirst, in which state he devoured food sufficient for three ordinary persons, following it up with a tumbler of rice-wine, said wine containing about 90 per cent. of pure alcohol. In spite of this, the patient lived a full week afterwards, dying finally, not of fever, but of indigestion. The cure increased Pong's reputation vastly. The other case on which his reputation rested was the remarkable cure of Tom Ching. Ching suffered from a bunion upon his big toe, and in the first instance had consulted an American chiropodist, whose treatment proved ineffectual. Then the sufferer went to Pong, who examined it, consulted the gods and his sole authority on medicine, a Chinese work dating centuries back, and after playing a mystic fantasia on his gong he applied a dark-looking plaster to it. He then wetted the plaster with some liquid, and made passes over it with a lighted taper; whereupon the bunion exploded violently, and was never seen again. It is true that Ching was compelled to go on crutches for a fortnight, but this did not detract from the efficiency of the cure, and Pong charged his patient 25 per cent. extra for having gone to an American doctor first, his reasons being that the American heathen physicians worked without the aid of the gods.

A rigid form of etiquette was insisted upon when patients visited Quong Pong. Pong's diagnosis in most cases was the same, and was generally given before the patient had a chance to explain his ailment. If the patient ventured to disagree with the diagnosis, out he went untreated. Pong always appeared before his patients dressed in a long yellow robe with a peaked cap, and prefaced every remark with a mystic tattoo on his gong. He then carefully looked at the left-hand thumb of the sufferer, which is the Chinese substitute for looking at the tongue, retired behind a screen, and in about an hour's time returned with a small vial or box of pills, which the patient received with due expressions of gratitude.

Pong was not only a healer, but a soothsayer as well. He was greatly skilled in throwing the Kau Pui. These are two elliptical pieces of hard wood, rounded on one side and flat on the other. After the proper incantation, they are passed through a cloud of incense, and allowed to fall from above the head. If they fall flat sides up, evil fortune will come, but if they fall with the round side of one and the flat side of the other up, good fortune will attend the person for whom they are thrown, provided, of course, the necessary presents have been previously forthcoming.

In the Chinese colony there are, of course, various factions established primarily for the purpose of gambling. These factions are constantly on the warpath against each other, and when one society wished to discourage the pernicious

activity of any member of the opposing faction by dropping a brick on his head, they usually consulted Pong as to the most suitable method of doing it. He it was who, from information gained in this way, foretold the coming power of one Tom Lee in Chinatown politics, and who warned the Mo Bin Tong against cutting off their pigtails, a practice which eventually brought some of them into Sunday schools and others into gaol.

The Chemist's Window.

WITH few exceptions are not our displays unattractive and commonplace? Stands carrying closely and geometrically arranged rows of special preparations packed in square cases; a few sponges in one corner; soap-boxes in another; a string of trusses depending from the top; a bed-pan or two, maybe, and three or four boxes of cough-lozenges and sulphur tablets—too much in as a rule, and no connection between them. Or possibly the chemist may have a fancy for glass and glitter; mirrors everywhere, sides and back, floor even; smelling and scent bottles, artistically labelled, beautifully capped, arranged on glassshelves. Why does the public fail to respond and crowd in for our "Pectoral cough-mixture," our "Seaside bouquet," and "corn-solvent"? Simply because the public has looked at, but not really seen, the display; the appeal has not been distinctive and emphatic enough.

Windows are nowadays so numerous, so uniformly well got up, that the one which is to attract special attention must have something special in some way about it; not necessarily anything specially good, but it must be unusual; if both, all the better. For instance, if one in a busy street were emptied of its usual contents, and a mouse and baited trap put in, would it not attract far more attention than the most attractive arrangement of high-class wares would? Spring the trap, after taking out the bait, leaving the mouse free, and hang up the question, "How did the mouse get out of the trap?" and would you not make it more effective still? I am not suggesting this as a suitable style of window-dressing, but, by giving an extreme case, I am seeking to prove that something unique readily claims attention.

Other interest-generating features are those of unusual size and properly presented contrast. The chemist often has a hint of the existence of the former given him in the surprise so often expressed by his customers at the size of his carboys and specie-jars; yet very rarely does he act upon it for the purpose of making money—for the carboys and jars, I take it, do not represent the thinking of the owner, but are the more or less useless remnants of the results of his ancestral thinking.

But to come to the practical side. In the first place, attention should be concentrated upon one central idea instead of being allowed to be frittered away by a multiplicity of things having no connection with each other. I have seen this concentration of ideas very well and artistically applied in exceptional chemists' windows. In one case there was a large pile of lavender-tops in the centre, a big bottle or two of lavender-water each side, and the glass shelves behind filled with smaller ones in two or three saleable sizes, all appropriately labelled with lavender-coloured labels. In another a similar plan had been carried out with violet perfume, the bottom of the window being carpeted with artificial violets, upon which many of the bottles rested. An appropriate quotation, suitably engrossed, and prominently exposed, would have further assisted each display. The same thing could be done with other things, soap—for instance, with such a wording upon a framed opal, as, say, "Beauty is but skin deep, yet as deep as needed." Many a chemist makes up a cough-mixture, which long experience has proved to be effective in simple coughs.

Let him, when the winter fogs and cold spring winds come on, instead of merely putting two or three dozen bottles upon one stand, and thus gaining for it at best but a small and ineffective share of the feeble interest excited in the onlooker by the whole contents of the window, dress it out exclusively with it, and, if you will, the lozenge also known to be a good and profitable one, bulking the centre in an eye-attracting 2 or 3 gallon bottle filled with the

same mixture. The prospective buyer can then have no excuse for ignoring his existing cough, or, if he be at the time free, for forgetting where to obtain suitable medicine when he develops one later on. That an unusually large object attracts quick attention can be remembered at other seasons as well; in the half-dozen bottles of citrate of magnesia, for instance, appearing with the pound and the 4½d. bottles in summer; or the 4-gallon jar, suitably labelled, that would go so well with the herb-ber extract and limc-juice season and dressing.

Here is another point offered for consideration. One may wish to make public some statement or other respecting a special article pushed forward as to high quality, favourable price, or seasonableness. How is he best to do it? Made in the ordinary way upon a printed slip, it attracts but little attention. The buying public is so familiarised with them that it will not stop to read, but passes them all unconcernedly by. Suppose instead a small blackboard or demonstration-slate, mounted upon a dwarf easel about 3 feet high, say, were placed in the centre of the window, and the statement chalked upon it. Would it not be at once noticed? And would it not stand, thus presented, a far better chance of being read, digested, and assimilated?

With such an arrangement, too, desirable change could be easily and inexpensively gone in for; indeed, if the chemist or his assistant have anything of the artist about them, there is no reason why it should not prove a still further attracting pictorial advertising medium.

Pictorial advertising leads naturally to the still higher value of object-advertising. Our forefathers, with their bundles of herbs, gilded mortars, chalk horses, leech-vases, and so on, knew of its value—had to, indeed—and even now, with education so far advanced as to have done away with the necessity for it, it does not follow that its policy and advisability have passed away. For, apart from all other considerations, we are so busy that we cannot afford time spent unduly over reading advertisements, but "would read as we run." As an instance showing at the same time degrees of value in advertising, the effectiveness of showing an object, and, further, of introducing contrast, let us assume that it be desired to sell cod-liver oil in its special season. The printed statement that "the new season's oil is now in" would probably attract but little attention. A good display of well-polished bottles would do more; but how much more still if in addition an emptied original barrel were put in the window! What an unusual, and so attention-compelling, object; and how well its roughness contrasts with the bottles near! I cannot see any great difficulty in doing it. Wholesale houses would be very ready, I should think, to meet their customers in supplying the barrels; whilst to many a barrel of oil would be no great matter to buy. A ½-cwt. earthen crock of honey, with an old-fashioned straw hive arranged on a frame as well, would at another season forcibly call attention to the fact of "pure English honey" being sold within. And so on, the changes could be rung indefinitely; each chemist would have scope and field for the expression of his own individuality, would soon find pleasure in the work, and without doubt—most important consideration of all—would further find a pleasing increase in the contents of his till.

J. R.

New Books.

Bailey, G. H. *The Tutorial Chemistry. Part II.: Metals.* Ed. by Wm. Briggs. Cr. 8vo. Pp. 380. 3s. 6d. (Clive.)

Dakin, W. R. *Handbook of Midwifery.* 8vo. 394 Illus. 18s. (Longmans.)

Kolonial Museum. *Amsterdam Extra Bulletin, 1897 Nuttige Indische Planten.* By Dr. M. Greshoff.

Leumann, B. H. F. *Notes on Micro-organisms Pathogenic to Man.* 8vo. 3s. (Longmans.)

Roscoe, H. E., and Schorlemmer, C. *Treatise on Chemistry. Vol. II.: Metals.* New ed. revised by Sir H. E. Roscoe, assisted by Drs. G. Colman and A. Harden. 8vo. Pp. 1204. 31s. 6d. (Macmillan.)

Scott, John. *A Manual of Urine Testing.* 3rd ed. enlarged 12mo. Pp. 52. 1s. 6d. (Baillière.)

New Companies and Company News.

LYLE'S LIME-JUICE COMPANY (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by James Lyle at 145 Crystal Palace Road, East Dulwich, S.E., and to manufacture, sell, and deal in clarified lime-juice, lime-juice cordial, essential oil of limes, water of limes, perfumes, &c.

PREMIER MINERAL-WATER COMPANY (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire and carry on the business carried on by F. M. Matthews, at Bexley Heath, Kent, as "The Premier Mineral-water Company." The first directors are:—George L. Roblin, G. L. Matthews, and F. M. Matthews. Qualification, 100*l.*

BUFFALO DISINFECTANT COMPANY (LIMITED).—Capital 6,000*l.*, in 1*l.* shares (2,000 6*l.* percent. cumulative preference). Objects:—To acquire and carry on the business of disinfectant-manufacturers carried on as "The Buffalo Disinfectant Company," at Eastern Road, Plaistow, Essex, and to adopt an agreement with Horace Stapleton.

CITY GLASS-BOTTLE COMPANY (LIMITED).—Capital 4,500*l.*, in 1*l.* shares. Objects: To acquire and carry on the business of glass bottle manufacturers carried on by a company of the same name at Cross Road, and Thorn Street, Ford's Park, Canning Town, E. The first directors are:—J. J. Etridge, junr., J. B. D'Ardenne, and E. J. Norton. Qualification, 50*l.*

WEYGANG'S OIL PRODUCTS COMPANY (LIMITED).—Capital 150,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with Charles A. Verner, and to carry on the business of manufacturers, salesmen, importers, exporters, and refiners of petroleum and other mineral oils and the products thereof, soap, paint, and varnish manufacturers, wool, jute, and flax merchants, chemists, mine-owners, &c.

MANCHESTER ACETYLENE GAS AND CARBIDE COMPANY (LIMITED).—Capital 40,000*l.*, in 10*l.* shares. Objects: To acquire and carry on the business of gas-engineers, makers of gas plant, and dealers in chemicals, carried on by A. Kay, A. McCallum, and J. B. Crompton, at St. Simon Street, Salford, Lancs., as "The Manchester Acetylene Gas and Carbide Company." Director's qualification, 500*l.* Remuneration, as the company may decide.

COTTON & Co. (LIMITED).—Capital 500*l.*, in 1*l.* shares. Objects: To acquire the business carried on at Newcastle Street, Burslem, Staffs., as "A. P. Tiley," and to carry on the business of chemists, druggists, drysalter, oil and colourmen, etc. The first subscribers (each with one share) are:—J. J. Longden, St. Paul's Street, Burslem, builder; F. W. Harris, Burslem, solicitor; J. Wain, Sneyd Green, Burslem, clerk; G. R. Wood, Newcastle Street, Burslem, grocer; A. Clarke, Newcastle Street, Burslem, draper; A. Smith, 13 Lyndhurst Street, Burslem, clerk; W. Clarke, 21 Newport Street, Burslem, rate collector. Registered without articles of association. Registered office, Newcastle Street, Burslem, Staffs.

LIPTON'S.—It is stated on good authority that this great enterprise is to be the next thing in millions to be offered to the public.

PEARS AND APOLLINARIS.—The latest announcement in respect to the amalgamation of these companies is that the negotiations are "off."

THE UNITED ALKALI COMPANY.—The directors announce the payment in full of the dividend on the 7-per-cent. preference shares, carrying forward 17,000*l.* The dividend on the ordinary is nil. This is the second time that the company have been unable to make a payment on these shares. The result of the first year's operations—namely, in 1891—was a distribution of 5 per cent.; in 1892, 6 per cent. was paid; in 1893, 5 per cent.; in 1894, nil; in 1895, 1 per cent.; in 1896, 2 per cent.; and for 1897, nil.

THE SALT UNION.—A committee appointed at a meeting of shareholders of the Salt Union (Limited), to which all holders of 500 shares and upwards were invited, have issued

a circular stating that they are unanimously of opinion that it is impossible to conduct the company's business to the best advantage from a London office, and that steps should be taken to remove the head office to Liverpool. The exports of salt from the port of London only amount to about 3,000 tons per annum, whilst those from the Mersey ports generally exceed 600,000 tons per annum.

HOMOCEA'S SHAREHOLDERS' REGISTER.—The cause-list of Mr. Justice Kekewich in Chancery on Saturday last contained for hearing an adjourned summons, taken out under the Companies Acts by Mr. Victor Thomasset, of Birkenhead, asking that the register of members of Homocœa (Limited) might be rectified by removing his name therefrom as the holder of 720 shares, on the ground that he was not, and never had been, a member of the company. On the case being called, Mr. F. Whinney said he appeared for the company to resist the application. It was an underwriting case. Mr. Justice Kekewich said in that case oral evidence would be necessary. In cases where the company appeared and practically submitted to the application, on the ground of some mistake or misapprehension, if he was satisfied he ordered the rectification *pro forma*; but when the facts were challenged it had been his practice to require oral evidence before granting the application. He ordered the case to stand over until February 25, then to be heard with witnesses, the company meantime to intimate to the applicant that he must attend accordingly.

SANITAS (LIMITED).—The twenty-first annual meeting of the Sanitas Company (Limited) took place on February 23 at the offices of the company, Letchford's Buildings, Bethnal Green, E. Mr. C. T. Kingzett, managing director, read the report of the directors, which showed that, after making provision for bad and doubtful debts and adding 807*l.* 5*s.*, the amount brought forward from 1896, the profits, less income-tax, for the year 1897 amount to 11,381*l.* 19*s.* The directors recommended the payment of a further dividend of 5 per cent. (making, with the interim dividend already paid, 10 per cent.), and a bonus of 9*d.* on the fully-paid shares, numbered from 1 to 50,000 inclusive, free of income-tax (making a total distribution for the year of 13 $\frac{3}{4}$ per cent.). A dividend and bonus amounting to $\frac{1}{2}$ per cent. per share is recommended to be paid on shares numbered 50,001 to 60,000, leaving a balance of 1,141*l.* 9*s.* to carry forward to 1898. During the year "Sanitas Embrocation" has been added to the company's products, and a new style of tablet introduced for disinfectant-soap. Growth of business has necessitated acquirement of additional premises and enlargement of the offices. The City dépôt has been closed, as it had not been found so useful as was hoped. Acting on the opinion expressed at the last meeting, the directors have acquired the business of the American and Continental Sanitas Company for 12,197*l.* 6*s.* 8*d.* This company had not been carried on in a successful manner, and it seemed the best policy to acquire it, and so prevent competition from what might be a rival company in the Indian trade. The American company had found their capital inadequate to carry on the full extent of their business, and the 12,197*l.* 6*s.* 8*d.* would allow them to pay to their shareholders 3*s.* 4*d.* per share. The Sanitas Company were shareholders in the American company to the extent of 21,000 shares, which would, of course, bring 3*s.* 4*d.* per share to them. The American company had the same patents, trade-marks, and secrets of the London system of manufacture. He would like to just mention to the meeting that in a concern like theirs they must expect competition, but this year a curious case had arisen. He referred to a company, styled "Sanitants Company (Limited), who had consented to a perpetual injunction, and a reprint of the report of the motion in the Chancery Division, before Mr. Justice Romer, as printed in THE CHEMIST AND DRUGGIST, February 12, 1898, was enclosed in the shareholders' copy of the report. He had reason to believe the company was still progressing, and had great pleasure in moving the adoption of the report. Mr. M. Zingler, F.C.S., seconded the motion, which was carried unanimously. The Chairman then said the business increasing had necessitated the appointment of an assistant to himself and Mr. C. E. Russell, a large shareholder, had been elected with a seat on the Board. Mr. Moll retired according to the articles, but he had pleasure in suggesting

his re-election. This having been done, the Chairman said that closed the business, but Mr. Notley, a shareholder, said he would like to hear an expression as to the suggestions made at the last meeting for the division of the shares, and whether this would not be advisable, say by making them two for one or three for one. The publicity of the excellent dividend must lead eventually to competition, which this division would probably stave off for a time; He was only asking for opinions. After a slight discussion on the subject, the following informal motion was adopted:—"That the directors are requested to take into consideration the division of the shares of the company, and make some proposals to the shareholders." A vote of thanks to the directors and staff closed the proceedings.

Festivities and Entertainments.

GLASGOW SUPPERS.

The students of the Glasgow and West of Scotland School of Pharmacy had a supper on February 17 at the Trades' House Restaurant. Mr. Thomas Mackenzie, Ph.C., was in the chair, and the students and teachers present numbered over eighty. After supper the company paid their respects to the Queen and the Pharmaceutical Society, and then Mr. A. Sheriffs proposed "The Glasgow and West of Scotland School of Pharmacy." He complimented Mr. Mackenzie on the success which had attended his enterprise, and Mr. Mackenzie, in replying, said he hoped the time would soon come when students would be able during their apprenticeship to take systematic and practical courses of instruction. "The Present Students" and "The Past Students" were toasted, and songs, recitations, selections on the mandoline, &c., were contributed.

The employes of Mr. James Taylor, wholesale druggist, Glasgow, were entertained to supper in Messrs. Whyte & Smith's Restaurant, Glassford Street, on February 14. The chair was occupied by Mr. John Taylor, while Mr. Thomas Taylor acted as croupier. The toast of "The Firm" was proposed by Mr. Thomson, and replied to by Mr. Thomas Taylor. After supper a musical programme was sustained by the company. Mr. Macintosh presided at the pianoforte.

AFTER-DINNER ORATORY AT BLACKBURN.

The annual dinner of the North-East Lancashire Chemists' Association was held, on February 17, at the White Bull Hotel, Blackburn, Councillor T. Critchley presiding over a large attendance.

Mr. R. L. Gifford proposed "The Pharmaceutical Society," coupling the toast with the name of Mr. Ed. Evans, jun. (Evans, Sons & Co., Liverpool). He said that if chemists would not join the Society they had no voice in its management, and, consequently, had no right to grumble. In February of last year the Registrar reported that there were 15,166 qualified chemists in the country, but of these 10,341 were not connected with the Society, leaving only 4,825 who had the power of voting for the Council and electing local secretaries. Broadly speaking, what was the effect of this? Seeing that the Society represented less than one-third of the trade, how could they expect to be taken seriously when they approached Parliament for an alteration of the law? As Mr. Hills had said, with these figures reversed they could obtain any legislation of a reasonable character. Alluding to the Pharmacy Bill, Mr. Gifford said to his mind the method of gaining the end was invidious, because it would stir up strife in a way of which they were all aware. It was childish for the Council to go to Parliament with such a Bill. He would like the Council to strive for the abolition of company-pharmacy and one-man companies, and also to give the members a definite position in the eyes of the public. He believed that if the Council agitated for the handling of all potent drugs, herbs, and chemicals, by registered persons only, the demand would be granted without much delay. Common-sense arguments were the only arguments with which to approach Parliament. He did not think the members of the Council knew their trade, and it was time they were educated—made more representative.

Mr. Evans, in responding, said a chemist could not have too much knowledge of his business, and it was not right

the Pharmaceutical Society should be interfered with by people whose knowledge was *nil* and who traded under fictitious names. Chemists were traders, but they were also semi-professional men, and there were two things for which the public would pay—the value of the goods they bought and the professional knowledge which they thought chemists possessed. Despite the extraordinary development of what Mr. Gifford had described as company-pharmacy and one-man companies, he thought there was still scope for a thoroughly competent man with business-aptitude to make a very respectable living. He thought the Pharmaceutical Council were rather governed by the West-end pharmacies in London. They did not realise that trade in Lancashire and in the West-end of London was altogether different. The solution of the difficulty was for the provincial towns to get as many representatives as possible on the Council, and he thought that notwithstanding apparent difficulties retailers were as well off as in the past.

"The Towns and Trade of North-East Lancashire" was given by Mr. H. Hindle, the oldest chemist in Blackburn. Councillor Green, J.P., responded.

"Pharmacy" was proposed by Mr. Grimshaw (Blackburn), and responded to by Mr. Law (Accrington), who said he would like to have a better opinion of the Pharmaceutical Society than he had. He had not been a member for many years, simply because he could not see what good it was doing the provincial trade.

Mr. Lomax (Darwen), who was entrusted with "The North-East Lancashire Chemists' Association," said he believed that in the past the Association had consisted entirely of Blackburn chemists. The members had decided to include the chemists of neighbouring towns such as Accrington, Burnley, Darwen, and other places. In doing this he thought they would not only give a helping hand to the smaller towns, but would also strengthen their own position.

Mr. F. N. Whitehead (Blackburn), the Honorary Secretary, responded.

Mr. Garland, who is the oldest pharmaceutical chemist in the town, gave "The Medical Profession," for which Dr. Conliffe replied.

Councillor Ralph Shorrock (Darwen), in responding to "The Visitors," also criticised the Pharmaceutical Society, which he had always looked upon as more or less of a failure.

Mr. J. S. Eatough gave "The Lancashire Witches," the responder being Mr. C. Critchley; "The health of Mr. Evans" was proposed by Mr. J. R. Parkinson; "The Secretary" found a proposer in Mr. W. Holt; and "The President" was given by Mr. Howarth.

Trade-Marks Applied for.

Anyone who objects to the registration of a trade-mark must address the Comptroller-General, Patent Office, Chancery Lane, W.C., within a month of the date of publication.

(From the "Trade Marks Journal," February 23, 1898.)

"VEDA"; for deodorisers and disinfectants. By Lever Brothers, Port Sunlight, Cheshire, soap-manufacturers. 210,708.

"SOMAVOL"; for all goods included in Class 2 and in Class 47 also "DERBEL" in Class 43. By Lever Brothers, Port Sunlight, Cheshire, soap-manufacturers. 210,964 and 210,966.

"FOOTPRINT," also "VEDA" and "GOSSAMER"; for chemical substances prepared for use in medicine and pharmacy; also "HANDPRINT" for perfumery. By J. Crosfield and Sons, Bank Quay, Warrington, soap-manufacturers. 209,356, 210,709, 211,392.

"PENTHA"; for medicated pessaries. By J. Pochet & Co., 45 Market Street, Manchester, manufacturer. 209,977.

Signature for an embrocation for human use. By J. H. Roper, 18 James Street, Oxford, cook. 210,847.

Two designs, the essential particular of which is the words "A la Corbeille fleurie"; for perfumery. By Ed. Finaud, 37 Boulevard de Strasbourg, Paris, perfumer. 206,023 and 206,024.

Design of flower for perfumery. By J. & E. Atkinson, 24 Old Bond Street, London, perfumers. 208,554.

The "Sycose" Patent.

AN action was begun on Thursday in the Queen's Bench Division of the High Court, before Mr. Justice Kennedy, which seems to have a bearing on the saccharin litigation. The plaintiffs in the case are a firm of manufacturing chemists in Manchester and London, trading as Montague Sbarp & Co., and they claim damages from the agents of the Elberfeld Farben Fabriken Company for alleged breaches of contract. The plaintiffs' counsel, Mr. Joseph Walton, Q.C., said that in October and November last they made contracts with the Elberfeld Company for 336 lbs. and for 1,500 lbs. of "Sycose," which he described as a purer and better form of saccharin, supposed to be 550 times sweeter than sugar. As the price of this article went as high as 52s. per lb., his Lordship would see that the contract was of considerable value. The Elberfeld Company had the patent rights not only in Germany, but also in this country, and the difficulty in the present case had arisen from this—that the Elberfeld Company which contracted to supply the plaintiffs sold its patent rights to some gentlemen who formed a corporation called the Saccharin Corporation. The Elberfeld Company sold their rights in England for 10,000l., and the second corporation were trying to make a monopoly in saccharin. They had not, in fact, got an absolute monopoly, and out of that came the trouble between the Saccharin Corporation and the Elberfeld Company. The question between them appeared to be whether the rights in the Sycose patent were sold subject to existing contracts.

The Corporation said the Elberfeld Company had got 10,000l., and would not buy plaintiffs' rights. Plaintiffs clearly had their rights. It was clear that if the 10,000l. did represent the absolute right to have exclusive sale in England of sycose, and the Corporation would not resell to the plaintiffs unless they undertook not to sell below a certain price, the plaintiffs were materially damaged. The position was that they could not buy except at a price higher than that at which they had made contracts to sell. The price agreed upon between them and the defendants was 39s. per lb., subject to certain discounts, which brought it to 28s. 3½d.

Mr. Walton read a large amount of correspondence, and said the defence, he supposed, was merely a question of the amount of damages, and 500l. had been paid into Court. His clients had offered to accept 1,500l. He contended that the defendants had no right to dispose of their rights in this country without reserving to the plaintiffs their rights under the contracts they had made. The sale of the article was now a monopoly in England, and plaintiffs could not obtain it for less than 2l. 12s. per lb., so that they could not carry out the contracts they had made except at a great loss. Mr. Montague Clayden having given evidence, the Court adjourned.

Personalities.

MR. LEWIS BUTTLE ROSS, chemist and druggist, Driffield, has been nominated a member of the local School Board.

MR. RICHARD HOLLICK, chemist, Lozells, Birmingham, has again been returned as county councillor for the Second Electoral Division of Warwickshire.

MR. JOSEPH GAZAN (Jeancard, Gazan & Doumin, 13 St. Mary Axe, E.C., and Cannes) has been elected a Judge of the Court of the Tribunal of Commerce, Cannes.

MR. J. B. FORSTER, the head of the firm of J. B. Forster & Co., pharmaceutical chemists, of Bangalore, is making a business-trip to Europe, and is expected in London shortly.

MR. EDWARD JAMES BISHOP, chemist and druggist, Folkestone, has been nominated for a vacancy on Eltham (Kent) Board of Guardians, caused by the retirement of Mr. Condy, a relative of the inventor of Condy's fluid.

A MARRIAGE has been arranged between Mr. R. G. Edwards, Coburg Hotel, Mount Street, W. (and 95 & 96 High Holborn, W.C.), and Edith Constance, daughter of Mr. Maurice Newton, 43 Cleveland Square, Hyde Park.

THE committee of the Samaritan Free Hospital for Women, Marylebone Road, London, have appointed Mr. Smith (late assistant-dispenser at the German Hospital, London) dispenser in place of Mr. S. Walton, deceased.

MESSRS. WM. EDWARDS & SON inform us that a customer of theirs in Kent has given them intimation that a young man professing to be in their employment had called on him and borrowed 2s. 6d. on the old allegation that he had met with a bicycle accident. The young man signed his I.O.U. "C. W. Wills." Some one worked this game on some of Messrs. Edwards's customers a year or two ago, and went to prison for it. Chemists should be on their guard.

ON the occasion of his marriage to Miss Marianne Eleanor Winkel, daughter of Mr. Michael Winkel, diamond merchant, Mr. Philip Josephs, jun., was presented by his firm's staff with a handsome silver tea and coffee service. The marriage ceremony at the Synagogue, Poet's Road, N., was attended by several hundred people, not the least interesting of whom was Mr. S. Josephs, the grandfather of the bridegroom, and the founder of the business, who is now in his 102nd year. He followed the service with evident interest, for his intellect is still keen; and he never misses his newspaper in the morning or his game of cribbage in the evening. After the marriage ceremony there was a reception in the Highbury Athenæum. Mr. and Mrs. Josephs, jun., spend their honeymoon in the Riviera, after which they return to 66 Mildmay Park, N., a house presented to them by Mr. Philip Josephs, sen.

Commercial Eucalyptus Oils.

By E. OCKENDEN.

IN Helbing's "Pharmacological Record" for December, 1893, figures were given showing that a large proportion of the oils sold in London were almost destitute of eucalyptol. Examination of a number of samples of the oil offered on the market at the present time shows little, if any, improvement in this respect, of which statement there is abundant evidence in the table given below. The fact that many consumers buy on the percentage of eucalyptol has unfortunately induced some sellers to make erroneous statements with regard to this constituent, hence buyers should take no statement on this point which is not corroborated by themselves before purchasing. It is highly probable that the new Pharmacopœia will demand that eucalyptus oils should contain not less than 45 or 50 per cent. of eucalyptol, and have a sp. gr. between .910 and .930. If so, this will weed out many oils which, though, perhaps, useful for soap-making, and other manufacturing processes, are worthless for medicinal purposes.

No.	Sp. Gr. at 15° C.	Optical Rotation (100 mm. tube)	Eucalyptol	Phellandrene	Price per lb.
1*	.9181	— 9° 18'	46.4	absent	s. d. 2 9
2†	.8762	— 46° 6'	absent	present	1 7
3	.8839	— 33° 1'	trace	present	0 11½
4	.8930	— 26° 14'	trace	present	0 11
5	.9187	— 5° 14'	47.6	absent	2 0
6	.8941	— 60° 50'	absent	present	0 10½
7	.8771	— 44° 7'	trace	present	0 10½
8‡	.9281	— 1° 56'	58.6	absent	1 9
9	.8998	— 30° 3'	trace	present	1 3
10	.8997	— 41° 34'	trace	present	1 9

* French globulus, said to contain 60 per cent. eucalyptol.

† Offered as Australian globulus.

‡ An Australian oil, said to contain 75 per cent. eucalyptol.

The sp. gr., rotation, and absence of eucalyptol of No. 2 prove conclusively that it is not a globulus oil. The above results show that oils rich in eucalyptol have a high sp. gr., and are almost inactive towards polarised light; while inferior oils have a low sp. gr., high levo-rotatory power, and usually contain phellandrene.



Notice to Retail Buyers.

It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk.

In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable even for manufacturing purposes.

Further points which should be borne in mind are that the distributor generally has to bear the bulk of the freight-charges on the goods on their way from the producer to the retailer, and that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., February 24.

The markets still remain lifeless and almost bare of big business, but signs are not a-wanting of an early improvement, the week now ending having brought more inquiry than has obtained in any preceding week of the year. Wholesale druggists complain of slack trade.

The principal changes of the week are notified in the following summary, in which we include those articles which show a firmer tendency:—

Higher.	Firmer.	Lower.
Alcohol	Acid, citric	Ammonia sulphate
Golden-seal root	Acid, tartaric	Bleaching-powder
Gum arabic	Buchu	Cinchona
Ipecacuanha	Camphor	Oil, spearmint
Naphtha, wood	Canary seed	Pepper, black
Oil, bergamot	Cevadilla	Peruvian balsam
Oil, castor	Cream of tartar	Potash bichromate
Oil, cod-liver	Honey, Jamaica	
Oil, lemon	Oil, peppermint	
Saffron	Wax, bees'	
Wax, Japan		

The new cod-liver oil is now coming in, and a decidedly firmer view is taken of it in London, but abnormally high prices are not expected. Sicilian oils have held their own during the week, and, as noted, have advanced a trifle.

The Amsterdam cinchona-sale to-day was a surprise, and the fall of the unit by more than 1c. shows how powerful the alkaloid-makers are. Quinine is unsteady, yet unchanged.

We report the spice and gum sales of this week, but there has been nothing very stirring in either.

Cotton-seed oil is firmer, and rape oil steady. Linseed oil also tends to firmness. Turpentine oil sells at 24s. 6d.

CABLEGRAMS.

OUR HAMBURG CORRESPONDENT telegraphs on Thursday afternoon that HIGH oil of peppermint is advancing: 5½m per lb. is now asked. Castor oil is also improving. Ginger and cevadilla-seed are easier.

OUR BERGEN CORRESPONDENT telegraphs to-day at 4.30 P.M. as follows:—"The weather has somewhat improved, and the catch of cod up to date is 1,248,000 (last year, 4,526,000). The yield of oil amounts to 1,700 barrels (last year, 3,540 barrels). The market is unaltered at 65s. per barrel, 'f.o.b.' for non-congealing oil."

OUR NEW YORK CORRESPONDENT cables to-day that saffras-root and wild-cherry bark are both scarce. For the

former 6½c. per lb. is asked, and for the latter 5½c. for good green. Golden-seal root has been further advanced, 45c. per lb. being now asked. Honduras sarsaparilla is in light supply, the bottom price for good quality standing at 31½c. per lb. is easier at 90c.; H. G. Hotchkiss's make at 110c. in bottle and 100c. in bulk. Opium shows a strong market at \$2.95 per lb.

FROM AMSTERDAM our correspondent telegraphs on Thursday evening that, of the 6,547 bales of cinchona bark offered at to-day's auctions, 2,953 packages sold at an average unit for the manufacturing-bark of 5½c. per half-kilo., against 6.9c. paid at the January auctions. The American and English manufacturers bought 1,891 kilos.; the Auerbach factory, 1,282 kilos.; the Brunswick factory, 3,248 kilos.; the Mannheim and Amsterdam factories, 4,269 kilos.; the Frankfort and Stuttgart factories, nothing; various other buyers, 1,533 kilos. The prices realised for manufacturing-bark ranged from 10 to 46c. per half-kilo., and for druggist's bark from 8 to 90c. The tone at the auctions was quiet.

It is reported by the *Times of Ceylon* that several Ceylon native traders in the Negombo district propose to form a limited company, to buy up all the cinnamon in the district. Their ideas are not so modest as their capital (20,000r. only), and it is not believed that they will have much success, especially as the Southern Province now produces the largest amount of cinnamon, and there is no word of the traders of the Galle district joining the Negombo company.

The fire which occurred in Hamburg on Friday evening, February 18, was a rather serious one. The first factory attacked was that of a spirit and cordial maker. It then spread to a colour-maker's works, and lastly the well-known pharmaceutical manufactory of Mr. Joh. D. Bieber, on the Quer-Kanal was involved. Mr. Bieber's works and his stock must have been all destroyed or ruined, for the blaze is described as tremendous, and though the premises first took fire at about half-past 7 in the evening, some parts were still burning at 10 the next morning. The money-value of the damage is not stated, but one Hamburg paper reports Mr. Bieber's insurances to have amounted to 230,000m.

We understand that the London agents of a continental chemical-manufacturer propose to sell in this market as **Antipyrin** "antipyrin" an article made by themselves, **Trade-mark.** hitherto sold for export under another name. They claim that they and anyone else may legally sell the article as "antipyrin" so long as they clearly indicate that it is not "antipyrin (Knorr)," as the product made by Meister Lucius & Brüning has been called. The registered trade-mark of the latter firm is composed of the words "Antipyrin (Knorr)"; it is, therefore, a moot point whether the word "antipyrin" by itself is the property of Meister Lucius & Brüning. It will be interesting to watch the progress of the competition between the original patentees and outside makers.

Included in recent drug-sales was a sample of seeds submitted by Messrs. Lewis & Peat, shipped as cardamoms from Natal, which appear upon examination to be **Unusual Drugs.** identical with those of the yellow amomum or longouze, of Madagascar (*Amomum Daniellii*). In shape they are oblong-cylindrical, of a dark-brown colour with a prominent hilum of a lighter shade, and are highly polished and have a somewhat camphoraceous taste. The pulp of the fruit is eaten by the natives of Guinea, and the juice from the stem is said to be used in cholera and ophthalmia, but the seeds are not known to possess any important medicinal virtue. The roots are astringent. Two bales of leaves, per *Arabistan*, included in the catalogue of Messrs. Figgis & Co., consisted respectively of a small-leaved variety of henna (*Lawsania alba*), and a bale classified as "Yass leaves." The latter, we find on examination, consist of the leaves, twigs, and fruit of the common myrtle (*Myrtus communis*), together with the broken leaves, twigs, and

fruits of a pistacio, which is probably *Pistacio khinjik*. Some fruits from Shanghai, submitted by Messrs. Eastwood & Holt, under the name of "Wangchi," are those of *Gardenia florida*, a shrubby plant, native of China, Japan, and the Bonin Islands. These interesting fruits are about $1\frac{1}{2}$ to 2 inches long, $\frac{1}{2}$ inch in diameter, and of an orange-brown colour, the calyx being prolonged down the fruit in the form of prominent ribs. The seeds are numerous, and held together by an orange-coloured pulp. The Chinese employ these fruits extensively as a yellow dye for silks, for colouring paste used for seals, and also for colouring bean-curd cake. Under the name of "kuchi-nashi" they are used medicinally in Japan, their properties being emetic, stimulant and diuretic.

Occasionally mossed caseara sagrada is seen on the market, but rarely such a specimen as this. The engraving is from a photograph of several pieces of the bark lent

Mossy Cascara. to us by Mr. John Moss. Three distinct species of moss have been identified on the bark by Mr. E. M. Holmes, viz:—*Hypnum Oreganum*, Sull.; *Nechera*



Douglasii, Hook.; and *Madotheca navicularis*, Lecq.-Sull. "All three are characteristic species occurring from California to Vancouver Island, but not in East America." There is, of course, a fourth species—*Hypnum Johannis Mossii*—which occurs only in the south-east of London.

We learn from Zanzibar that a leading firm of clove-merchants have entered upon trials of a new method of drying cloves. The apparatus is a French one which was originally designed for incubating silk cocoons, and consists of a water-jacketed oblong oven, fitted with shelves. It is expected, by heating the box to about 180° F., to dry cloves in two hours instead of three or four days, which is the time it takes by the ordinary method of drying them in the sun. It is questioned by authorities whether the new method will be an improvement, especially as the apparatus weighs 5 tons, too heavy a weight to move about in Zanzibar. At present the drying of cloves merely means putting them out in the morning and taking them in at night. They are spread out close to the house, where there are generally plenty of people about to run them in quickly if rain comes on. Artificial heating may improve the quality of the cloves, but it is considered that quality depends quite as much upon the picking as upon the drying. The following are the official quotations for cloves at Zanzibar on $\frac{1}{2}$ December 24:—Zanzibar cloves, $\$2.50$ to

$\$2.87\frac{1}{2}$ per fras. of 35 lbs.; Pemba cloves, $\$2.50$ to $\$2.75$ per fras. of 35 lbs.; and stems, $\$0.39$ to $\$0.42$ per fras. of 35 lbs. In regard to the clove-crop it is stated that Pemba will probably never exceed, if she equals, the big crops of former years. Many of the trees are getting old and woody, and only have a little foliage at the top. Some of the shambas present the aspect of forests rather than plantations, and the trees, no longer any good for fruit, are being used for timber.

ACID, CARBOLIC, has been more inquired for at slightly firmer prices. Crystals, on the spot, are now offered at $7d.$ to $7\frac{1}{2}d.$ per lb. for 39° to 40° C.; 34° to 35° C., $6\frac{3}{4}d.$ to $6\frac{1}{2}d.$ Cresylic 95 per cent., $1s.$ to $1s. 1d.$ per gallon. Crude 60 per cent., $1s. 11d.$, and 75 per cent. $2s. 5d.$ per gallon.

ACID, CITRIC, continues very firm, at $1s. 0\frac{3}{4}d.$ per lb.

ACID, TARTARIC.—English crystal on the spot is offered at $1s. 1d.$ per lb.; foreign stands at $1s. 0\frac{3}{4}d.$, for crystals or powder.

ALCOHOL.—German potato-spirit has again been advanced $1d.$ per gallon, owing to the continued buying for the Japanese market in anticipation of the new tariff which comes into operation on August 1. Druggists' quality is now quoted at $8\frac{3}{4}d.$, and perfumers' at $9\frac{3}{4}d.$ per proof gallon, c.i.f. terms naked, for large quantities, packing not included. The quotations for "delivery into warehouse" are $1d.$ above these prices. The market is likely to remain firm as the new German potato-crop is not due until September. At the outset of the advance in price in Germany American distillers were enabled to export a fair amount there.

ANTIPYRIN is now obtainable at $2s. 0\frac{1}{4}d.$ per oz. The cheap rate ($15s. 6d.$) for phenazone has been withdrawn, and the prices now range from $17s.$ to $18s.$ per lb., according to quantity and quality.

ASAFETIDA.—There is little business to report this week. Stocks are now accumulating, and holders show a disposition to meet buyers.

BELLADONNA-ROOT.—Good German root is offered at $45s.$ per cwt. on the spot, but buyers are shy.

BUCHU.—The market has been almost cleared of good sound green leaves at $5d.$ per lb., or $\frac{1}{4}d.$ above the rates paid at auction for this quality.

CALUMBA.—A parcel of washed sorts offered in auction last week has since been sold at $60s.$ per cwt. An arrival of 175 bags at Hamburg is reported, but we cannot trace it in the official papers.

CAMPHOR, CRUDE.—There has been more inquiry this week, but the amount of business done has not been large. Chinese is offered at $83s.$ per cwt., c.i.f., February-March shipment, and offers of $82s.$ have been refused; $90s.$ is asked on the spot. For Japanese $92s.$, c.i.f., is wanted, and there are buyers at $90s.$ There is no change in the spot quotation.

CAMPHOR, REFINED, is firmer, both in Hamburg and London, and the foreign make in bells is quoted $1s. 2\frac{1}{4}d.$ per lb., c.i.f.

CANTHARIDES.—Fine sifted Russian flies are offered at $2s. 3d.$ per lb., best quality Hungarian at $2s. 6d.$, and Chinese at $11d.$ to $1s.$ per lb. on the spot.

CARDAMOMS.—A small business has this week been done privately at the last auction rates, but it is difficult to effect sales at $1d.$ or $2d.$ above those rates.

CASCARA SAGRADA.—There is no business to report in this article, and the ruling value for new bark is from $20s.$ to $21s.$ per cwt., on the spot.

CREAM OF TARTAR.—Steady on the spot at $75s.$ per cwt. for best white French and Spanish crystals; powder is $77s.$ to $79s.$ The Bordeaux quotation is unchanged at $73s.$ per cwt. net.

CINCHONA.—The *Clan Menzies*, from Calicut, has brought 1,259 packages and 134 bales from Beypore. There is no business in London this week to report.

CODEINE is not changed at $11s. 3d.$ to $11s. 6d.$ per oz.

CUBEBS.—The *Malacca* brought 427 bags from Singapore,

which adds to an already glutted market, and lower prices may be expected. The stock in New York is said to be sufficient to meet American demands for two years. The London market still remains very quiet. Business is said to have been done this week at 35s. per cwt. for fair berries. For fine sifted quality 40s. is asked.

DANDELION-ROOT.—The current quotation for good foreign root is from 42s. to 44s. per cwt., "c.i.f." English root is also scarce.

ERGOT OF RYE quiet. For old Russian from 8½*d.* to 9*d.* per lb., c.i.f., is asked, and 10*d.* on the spot. There is no new Russian to be had. Spanish is quite scarce at 1s. 3*d.* to 1s. 4*d.* per lb. on the spot—in fact there is none offering at the moment.

FENNEL.—At the drug-sales last week some Roumanian seed was offered, and sold at 16s. 6*d.* per cwt.

GENTIAN is scarce at 18s. 6*d.* to 20s. per cwt., "f.o.b.," for good Continental root.

GLYCERINE.—Crude is firm at 36*l.* per ton—a nominal figure, as there is practically none available. Redistilled 1.260 is 50*l.* to 51*l.* per ton—English or German.

GOLDEN-SEAL ROOT.—American advices in to-day confirm our cabled report of last week that this drug is extremely scarce, and 1s. 10*d.* to 1s. 11*d.* per lb., c.i.f., is now asked, but little is to be had at that. The spot price is 2s. 1*d.* to 2s. 2*d.*

GUM ARABIC was in good supply at auction, 2,326 packages being offered, and only a small part sold at a decline of 2s. to 3s. per cwt. for Cawnpore-Amrad. Turkey and Aden brought full prices. Good Cawnpore-Amrad realised 28s. 6*d.* to 30s.; unsifted, 25s. 6*d.* to 26s.; common Ghatti, 15s.; Oomra, 27s. 6*d.* for good; fair, 26s. to 26s. 6*d.*; common dark, 23s. 6*d.*; and pickings at 20s. Thirty packages Aden sold at 52s. for good ambery; 25s. for ordinary, and 20s. for fine siftings. Ten packages of Cape gum sold at 20s. for glassy ambery. A large quantity of Persian was bought in.

GUM OLIBANUM.—Of 787 packages offered 50 only sold: low red sorts at 13s., common garblings at 13s. to 14s., and siftings at 15s. 6*d.* to 16s. per cwt.

HONEY is slow of sale. Fair Jamaica has been disposed of this week at 29s. per cwt.

INDIGO.—We hear that a factory besides the Badische Anilin und Soda Fabrik is likely to take up the manufacture of artificial indigo; also that the B.A.U.S.F. cannot for some time to come produce more than would equal 3 to 4 per cent. of the world's consumption of indigo; hence the natural sources will not suffer much at present.

IPECACUANHA.—The *Para*, from Savanilla, has brought 15 packages. For good Rio root, 8s. 2*d.* to 8s. 3*d.* per lb. is now asked; and bold Cartagena has sold at 6s. 6*d.* per lb.

ISINGLASS.—At the periodical auctions on Tuesday 677 packages were offered, about half of which were sold at an advance of 4*d.* to 7*d.* per lb. for Brazil lump, 3*d.* to 4*d.* for Penang leaf; and a decline of 2*d.* to 3*d.* for Saigon leaf. Good to fine Brazil realised 4s. 9*d.* to 5s.; fair, 4s. 1*d.* to 4s. 3*d.*; ordinary, 3s. 4*d.* to 3s. 6*d.*; brownish tongue, 3s. 2*d.* to 3s. 4*d.*; fair purse, 1s. 10*d.* to 2s.; and honeycomb at 2s. 2*d.* to 2s. 4*d.* per lb. Fair lump West Indian realised 3s. 2*d.*; good, 3s. 10*d.* to 4s. 4*d.* Good gelatinous Bombay pipe sold at 2s. 8*d.*, and fine at 3s.; fair Karachi leaf, 3s. 2*d.* to 3s. 4*d.*; good to stout, 3s. 8*d.* to 4s.; and common thin leaf at 2s. 1*d.* All the Penang sold (85 packages) at 5s. 1*d.* to 6s. for good selected stout Saigon character; good to fine pale round, 4s. 2*d.* to 4s. 8*d.*; middling to good yellow, 3s. 8*d.* to 4s. 1*d.*; ordinary to good red and reddish, 3s. 2*d.* to 3s. 6*d.* per lb. Good to fine palish tongue realised 4s. to 4s. 4*d.*; middling, 3s. 10*d.*; mixed to good cake, 1s. 1*d.* to 1s. 6*d.*; ordinary, 11½*d.* to 1s.; and pickings at 9*d.* per lb.

KOLA-NUTS.—Very dull of sale. Privately little business appears to have been done during the week.

MENTHOL is quiet and unchanged at 6s. 6*d.* to 6s. 9*d.* per lb. c.i.f. for February-March shipment; 7s. would buy

on the spot, although the nominal quotation, is 7s. 3*d.* per lb.

MORPHINE MURIATE is steady, at 4s. 3*d.* per oz.

MUSK has been quiet lately, and continues so. First pile thin blue skin is quoted at 75s. to 77s. 6*d.* per oz.; and seconds at 55s.; but the latter has to be shaded to effect sales.

NAPHTHA.—Wood-naphtha is slightly firmer in consequence of the advance in German potato-spirit, from 3s. 9*d.* to 3s. 10*d.* per gal. is asked on the spot. Solvent naphtha, 90-per-cent. is offered at 1s. 7*d.*, 95-per-cent., 1s. 9*d.*, and crude 30-per-cent. at 1¼*d.* per gal.

OIL, BERGAMOT.—The market is firm. At the close of last week 8s. 6*d.* per lb. was paid for the essence, but 8s. 8*d.*, f.o.b., is now asked,

OIL, CASTOR.—Best medicinal Italian oil is offered at 36s. 6*d.* per cwt., "c.i.f." terms. Cases are quoted at 4¼*d.* per lb. on the spot, no discount. It has lately become the rule of the trade to abolish the 2½ per cent. discount on spot transactions. Medicinal French or Calcutta oil is offered at 35s. 6*d.*, in cases, and barrels at 33s. per cwt., subject to 2½ per cent. discount.

OIL, COD-LIVER.—A firmer tone has been felt in the market this week, and the 60s. f.o.b. quotations for new oil have been withdrawn. There has been a fair amount of contracting forward done (without sample) at 65s. per barrel, f.o.b., but as yet the best medicinal steam-refined oil is not in sight, and a telegraphic advice on Tuesday states that so far not more than 25 hectolitres of first-class non-congealing steam-refined Lofoten oil has been rendered. Our Bergen correspondent, writing on Saturday, February 19, states that the hopes of calm weather which were indulged in for a few days last week were quickly dissipated by the gales starting afresh. The results of the fishing are much inferior to what have been experienced for many years; but the fish are very fat, and so far as the most important parts of the fisheries are concerned, the results are not so bad that they may not be remedied before the end of the fishing season. In any case it is still too soon to draw any conclusions as to the final result. The market is firm at last week's quotations. The exports of oil from Bergen up to date are 903 barrels, against 594 barrels in the corresponding period last year. (We understand this to refer to all kinds of oil.) Since the foregoing was written consignments of the new oil have been delivered in London. We have had an opportunity of examining one lot, and find it to be excellent as regards colour and odour, but somewhat pronounced in taste. The sample was from the first catch, and the oil is sure to improve before the season closes. To-day's market has again firmed, and the 65s. quotations are now "without engagement," and all makers quote 2s. 6*d.* to 5s. per barrel more than last week.

OIL, LEMON.—The upward tendency which we reported last week is confirmed, but no further rise has up to the time of writing taken place, and there is no excitement about the article, good stocks being available on the spot. It is believed that speculation, as well as bad weather, has to do with the advance; at any rate, from 6*d.* to 9*d.* more per lb. has to be paid for oil of new pressing, the Messina quotation being 4s. to 4s. 3*d.* per lb., f.o.b.

OIL, LEMONGRASS.—The *Clan Menzies* from Cochin has brought 204 cases. For fair oil 5*d.* per oz., "c.i.f.," is asked, and from 6*d.* to 8*d.* on the spot.

OIL, NUT (OL. ARACHIS).—Finest bleached oil is offered at 29s. 6*d.* per cwt. on the spot, and edible yellow at 29s. to 34s., according to quality.

OIL, ORANGE, is quoted at 8s. 2*d.*, f.o.b.

OIL, PEPPERMINT, is very firm. A large business (amounting to some 300 cases) has been done in HGH this week at 5s. 3*d.* to 5s. 6*d.* per lb., but the latter price is now ruling. Business has also been done in the "S. & F." brand at 3s. 6*d.* per lb., London terms.

OIL, STAR-ANISE.—A quiet market, at 6s. 8*d.* per lb., c.i.f., for forward delivery; and 7s. 3*d.* on the spot.

OPIUM.—The London market is unchanged, with a few inquiries, but no business, the limits being above buyers' ideas. Our Smyrna correspondent, writing on February 11,

reports that only 4 cases have been sold during the week at the parity of 8s. 5d. per lb., f.o.b. Smyrna, for Karahissar for exportation. There are several export-buyers on the market, but their orders are limited below the ruling prices, and holders remain firm. The same may be said of the Constantinople market, where Karahissar has also been sold at 8s. 5d., and soft-shipping at 10s. 2d. per lb. Advices from Salonica, dated February 7, confirm the loss of three-quarters of the autumn sowings. Preparations are now being made to recommence sowing on a large scale in order to recoup losses. The arrivals in Smyrna up to date amount to 3,313 cases, against 2,192 cases at the corresponding period of last year. American advices state that stocks in New York are becoming concentrated in the hands of large dealers, and that a good consumptive demand rules.

ORRIS-ROOT.—From Italian advices, dated February 23, we learn that Florentine orris-root has become firmer. Selected is quoted at 42s. per cwt.; sorts at 39s.; and small white at 38s., c.i.f. The stocks in Italy are becoming smaller, and a further rise is predicted. A good business has been done recently for American account. The London market, however, remains dull.

POTASH PERMANGANATE is steady but unchanged: 60s. per cwt. is now asked, and we hear that 59s., less 3½ per cent., for ton lots has been refused this week.

QUICKSILVER shows a very good market, and the price remains steady, at 7l. 2s. per bottle in second hands.

QUILLAIA.—The quotation for immediate delivery is 18l. per ton.

QUININE.—It is reported that sales of sulphate of quinine (German) have been made since our last report at 1s. per oz., but we have been unable to trace either buyers or sellers at this figure, and our last quotations still obtain, viz., 1s. 0½d. to 1s. 0¾d. for secondhand lots of German sulphate.

RHUBARB.—The *Malacca*, from Shanghai, has brought 135 cases. Nevertheless holders are firm in their views respecting "High Dried," which is scarcer, and 1s. 1d. to 1s. 2d. per lb. is wanted for fair root.

SAFFRON.—Holders are very firm, and a further advance of 1s. per lb. has to be recorded this week, 34s. 6d. to 39s. now being the prices for Valencia, according to grade, but, although holders are firm, it may be possible to shift these prices a few pence.

SENNA.—Privately, a fair business has been done in Tinnevely at firm rates. A Bombay steamer, due here shortly, has a consignment of 140 bales, which will not be in time for the next auctions. A small business has also been done in Alexandrian at 6½d. per lb. for fair bold leaf of good colour. The *Viola* from Hamburg has brought 45 bags.

SHELLAC.—The market has been quiet and dull at about previous quotations. Retail sales of Button have been made on the spot at steady rates. T.N. second orange has also been sold in a small way at 65s. to 66s. per cwt. A.C. Garnet is quoted at 75s. for fine flat face, and O.C.C. has been sold at 59s. The market for arrival is quiet, with offers of T.N. orange at 64s. c.i.f. for April-June shipment.

SPICES.—The speculative markets have been quiet during the past week, but fairly steady considering the rapid advance in price established in several articles. At Wednesday's auctions *Cochin ginger* was partly sold at a slight decline; 150 bags fair Calicut rough at 32s. per cwt.; 50 bags fair plump white washed rough Cochin at 30s.; 95 bags small worry at 22s.; and 55 bags serag at 12s. 6d. One hundred bags good washed African were withdrawn at 27s. per cwt.; Jamaica sold steadily, 200 barrels realising 60s. 6d. for Khateon, ordinary bulked; 62s. 6d. to 73s. 6d. for small to ordinary lean; and 79s. for washed. About 400 bags Japan were offered, and bought in at 19s. 6d. to 21s. per cwt. *Zanzibar cloves* easier; 40 bales fair selling at 4d. per lb.; and 30 bales common dark 3¾d. to 3½d. For delivery the market has fluctuated within narrow limits, a moderate business having been done at and about 4½d. for June-August. A few cases of good bright picked Penang sold at 9½d. per lb.; and slightly darker at 8½d. per lb. *Chillies* quiet, the quantity offered being bought in. *Nutmegs* and *Mace* steady, without much business. *Pimento* rather firmer; privately 300 bags have changed hands at 4½d. to

4¾d. per lb. for fair quality. *Black Pepper* rather easier; business doing in Singapore at 4½d. to 4¼d. per lb.; and to arrive at 4¼d. to 4¾d., according to position. At sale 50 bags fine shot Tellicherry sold at 4¼d. to 4½d. per lb. *White Pepper* very firm; a small lot of fine Singapore sold at 9½d. per lb.; fair sells privately at 7½d. per lb.; and fair Penang at 6¾d. per lb.; 100 bags at auction were withdrawn. *Cassia lignea* steady, at 51s. 6d. per cwt. *Japan ginger* for March-May shipment is offered on the spot at 20s. to 21s. per cwt.

SUGAR OF LEAD.—The makers of this article have advanced their prices by 1l. 10s. per ton, in consequence of contracts for the metal having expired. The convention quotations are, 10 ton lots, 24l. 10s. per ton; 5 ton lots, 25l., and under 5 tons, 25l. 10s.

SULPHUR is very firm, and becoming scarce. Recovered is quoted at 5l. per ton, and roll at 6s. 3d. per cwt.

TAMARINDS.—A small business has been done in best Barbados, of last year's crop, at 12s. 6d. per cwt., on the spot. For ordinary to fair West Indian 8s. per cwt. is asked.

VANILLIN is held at from 3s. 5d. to 3s. 6d. per oz., according to quantity.

WAX (BEES').—Since last week's auctions a number of transactions have been made in Jamaica of fair quality with good grain and little sediment at 7l. to 7l. 2s. 6d. per cwt., the price being on the whole firmer than at auction.

WAX, JAPAN, is steady at 36s. per cwt. on the spot, for good pale squares, and at 33s. (one holder asks 34s.), c.i.f.

Heavy Chemicals.

One of the main features of interest in connection with the chemical-trade since the date of last writing has been the dividend announcement of the United Alkali Company (p. 364). Another point, too, which may be of interest, and which shows what rapid strides Japan is making, is a current report that she is exporting bleaching-powder to the Indian market. Turning to the general condition of the heavy-chemical market, and to the position of the various products, there is very little new to report. On the whole, prices are fairly well maintained, and there is a steady inquiry for the principal products. *Caustic soda* and *Soda crystals* are moving better. There is a better feeling in coal-tar products generally. *Yellow prussiate of potash* is firm. Demand for *Recovered sulphur*, *South Durham salt*, and *Green copperas* is fully maintained. *Borax* tends towards slightly higher prices. *Brown acetate of lime* is very steady, whilst most *Alumina* and *Barium products* meet with better request. *Bleaching-powder* is slightly easier; and *Sulphate of ammonia* is rather dull, and quotations have declined a little since last writing, 9l. 17s. 6d. to 9l. 18s. 9d. being about the figure at all ports. Exports from Leith last week only amounted to 270 tons. *Sulphate of copper* has recovered its position, and is firmly held. Quotations are 16l. 5s.; Liverpool, 16l. 10s.; April delivery, 16l. 15s.; Anchor, 17l. *Cream of tartar* steady. *Nitrate of soda* is in better request, but prices are kept down owing to full supply. *White powdered arsenic* rather quiet, as are also *Sulphocyanides*. The barium compound of the latter, however, meets with a moderate inquiry. *Bichromates of potash and soda* are very unsettled, and tend slightly lower. *Linseed and cottonseed cakes* in fair request, and prices are fully maintained.

The Liverpool Drug-market.

Our Liverpool correspondent writing on February 23 reports that there is a much better demand for *Castor oil*, and as a consequence the price of good seconds Calcutta has hardened considerably, and 3½d. is now easily obtainable. The price of first-pressure French is also maintained at 3½d. per lb.; at the moment no second pressure is available. Stocks are also wanting of Madras and Bombay grades. The upward move in *Honey* is well sustained, and sales of Chilian are being made at the prices last quoted, but holders show less disposition to part with their holdings. *Scammony-root* is in fair supply, and importers exhibit a tendency to modify their views as to price, and prices ranging from 26s. 9d. to 35s. per

cwt. are asked for good root. *Quillaia-bark* on the spot and for prompt delivery is unchanged at 17l. per ton, and sellers seem confident that at an early date they will be able to command better figures for their produce. Notwithstanding the fact that the new season *Chillies* are arriving on the market, there is a very strong demand for good qualities, and this has resulted in large sales of the new arrivals at prices varying from 42s. to 45s. per cwt. for fine bright quality from the quay *Kola nuts* meet with a steady consumptive demand, and sales of good dry are recorded of 50 bags at 2½d. per lb. *Jaborandi-leaves* of the large leaf variety are wanting on the market, and large sales of the small variety have been made for export at about 2½d. per lb. *Sulphate of copper* is steady at 16l. 10s. to 16l. 15s. per ton. In sympathy with the general upward move in spices *African ginger* has improved in value, and transactions have taken place in good dry root at 22s. 6d. per cwt., and importers say that this is simply the beginning of the upward movement in the article. *Chilian Spermacti* is in very firm hands, and sales have been effected at 1s. 3d. per lb. in fair quantities. In *Beeswax* there is more interest evidenced, and sales of Peruvian are reported at 7l. for mixed grey and yellow; while 48 packages of the Gambia descriptions were sold at 6l. 10s. per cwt. In gums the *Arobie* varieties are still very scarce, and hard sorts are changing hands in limited quantities at 67s. 6d. per cwt., and in Brazilian arabic a good business is passing at late rates. *Canary-seed* is in better demand at 26s. to 27s. per quarter.

Hamburg Drug-market.

Our Hamburg correspondent writes on February 22 that the drug-market continues quiet, with few alterations since last week. *Citric acid* is in better request in accordance with the higher prices from England. *Russian anise* of the 1897 crop is quoted 39m. to 40m. per 100 kilos. *Balsam Peru* is a little weaker; there were some offers at 17½m. per kilo. in the market to-day. *Balsam tolu* quieter at 310m. per 100 kilos. *Camphor* is slightly firmer, though with little business, at 245m. per 100 kilos. to-day. *Cocaine* is unchanged, with prices favouring buyers. *Maltese Cummin-seed* on the spot is offered at 38m. per 100 kilos. *Ceradilla-seed* firm; 80m. per 100 kilos. has been paid, although an arrival of 239 sacks has been recorded. *Ergot of rye* is quiet and little doing at 160m. per 100 kilos. *Galangal* is slightly firmer at 40m. per 100 kilos. *Menthol* is steady at 15½m. per kilo. *Ginger* of all qualities shows a strong market. *Kola nuts* are in a little better demand at 40m. per 100 kilos. *Quinine* without much business at 35m. per kilo. *Quillaia* shows a firmer tendency; forward delivery is quoted at 34m. per 100 kilos. *Star-anise* is easier at 220m. to 217m. per 100 kilos. *Canauha wax* steady at 80m. to 140m. per 100 kilos., according to quality. *Japan wax* steady on the spot at 70m. forward delivery at 67m. per 100 kilos. *Oils: Cod-liver* has an improving tendency; to-day's quotation is 68m. per barrel for non-congealing oil. *Russian anise oil* is steady at 14½m. per kilo. *Star-anise oil* quiet at 15½m. per kilo. *Clove oil* firm at 5¾m. per kilo. *Peppermint oil* dull; HGH at 5-15m. per lb., and Japanese at 6½m. per kilo.

The New York Drug-market.

Our New York correspondent, writing on February 11, says:—"The drug-market presents few important changes, and business is slow. *Quinine* is moving freely, with manufacturers' agents quoting on the basis of 26c. for bulk in 100-oz. tins, and outside stock 24c. to 25c., according to brand and quantity. The stocks of new golden-seal root are very small, and the market is hardening; large lots sell at 37c. to 40c. *Honduras sarsaparilla*: Lower grades very scarce, although not notably higher, prices ruling from 30c. to 35c. *Podophyllum-root* is selling in a moderate way at 6c. to 6½c. *Cascara sagrada* steady at 4½c. c.i.f., London. *Balsam Peru* is lower at \$1.90. *Balsam tolu* also weak at 35c., the first-hand stock of the balsam being 150 cases. *Spermacti* is nominally quoted at 27½c. block. *Curacao aloes*, livry stock, is scarce at 7c., and ordinary in good supply at 3½c. *Gum chicle* is in good demand, prices being 30c., or 20c. in bond, for export. *Peppermint oil* is weak; HGH is quoted at \$1.10, and for fine quality \$1.00 is asked."

Price-list of Essential Oils.

SUBJOINED are the current quotations for the principal essential oils. The quotations are for wholesale quantities exclusively:—

Oil of	Description	From	To
		s. d.	s. d.
Almonds (bitter)...	*Foreign to English genuine ...per lb.	16 6	17 0
"	Ditto, sine ac. prussic., per lb.	20 0	21 0
Amber ...	English rectified "	1 3	—
Anise ...	English distilled "	10 0	—
"	Foreign "	7 6	10 0
" (Star) ...	Chinese "	—	7 3
Bergamot...	Fair to extra "	8 6	9 6
Cajuput ...	Green unrectified per bottle	4 3	5 0
Caraway ...	English distilled per lb.	5 0	—
"	Foreign rectified "	4 0	5 0
Cassia ...	80 to 85 p.c. aldehyde per lb.	6 6	6 10
Cedar-wood ...	Common to extra "	1 6	3 6
Celery ...	English ... "	22 0	23 0
Chamomile ...	German blue ...per oz.	7 0	—
Cinnamon ...	True ... "	1 6	5 0
Citronella...	Genuine ... per lb.	1 4	2 2
Cloves ...	English distilled "	2 8	2 10
Copaiba ...	English or foreign true per lb.	2 3	3 9
Coriander...	Finest foreign ... "	15 6	16 6
Cubebs ...	English or foreign "	4 6	5 0
Cumin ...	*Foreign to English "	11 0	14 0
Dill ...	*Foreign to English "	8 6	10 0
Eucalyptus ...	Australian globulus per lb.	1 9	2 3
Fennel ...	Sweet foreign ... "	3 0	5 0
Geranium...	French rose ... "	32 0	32 9
"	Turkish ... "	7 6	9 0
Juniper-berries ...	English ... "	18 0	—
Lavender ...	Finest Mitcham ... "	75 0	—
"	French flowers ... "	5 2	6 6
Lemon ...	Common to finest "	3 6	4 3
Lemongrass ...	Fair native ...per oz.	0 5	—
Linaloes ...	Rectified... per lb.	6 3	—
Mace ...	Good quality ... "	3 6	4 0
Mirbane ...	Rectified... "	0 7	0 9½
Neroli ...	Best Bigarade ...per oz.	7 6	8 0
Nutmeg ...	Best English ... "	0 6½	—
Orange ...	Sweet ... per lb.	8 2	9 0
Origanum...	Red, fine to extra "	2 8	3 9
Orris ...	English concrete per oz.	26 0	—
Patchouli ...	Best German ...per lb.	22 0	24 0
Peppermint ...	Mitcham... "	25 0	—
Petitgrain ...	Common to extra per oz.	0 9	1 5
Pimento ...	English distilled per lb.	8 0	13 0
Pine ...	P. pumilionis ... "	7 0	10 0
"	P. "sylvestris"... "	1 6	3 9
Rose ...	Good to fine Bulgarian per oz	24 0	30 0
Rosemary...	Fair to best foreign per lb.	1 8	3 0
Sandalwood ...	English distilled "	12 0	—
Wintergreen ...	Good American... "	6 0	7 0
Ylang-ylang ...	Manila, best ...per oz.	15 0	—

* The lowest prices quoted in these items are for the foreign oils.

Commercial Notes.

INDIARUBBER.

The Government of the French Soudan are making efforts to develop the caoutchouc industry, and the natives have been notified that rubber will be received in payment of taxes. It is sold at Kayes by public auction. In 1895 this brought in 2,200f., and in 1896 20,500f. The value

of 1 kilo. of rubber rose from 2.30f. in 1896 to 4.08f. in 1897, on account of better methods of preparation, and the exportations of rubber rose correspondingly.

KOLA IN THE FRENCH SOUDAN.

Great quantities of kola-nuts are imported into the French Soudan. In French territory it is only found at Kissi, and as it is the most common article of exchange in the country, it is brought thither from other parts. The value of this import in 1896 was 1,350,000f., or about 24,500,000 nuts, the price varying from 250f. to 15f. the hundred nuts, according to the origin, and also according to their size and colour, the pink nuts being more highly esteemed than the yellowish-white ones. The kola-nut is much appreciated for its medicinal property as a tonic, but it is also in great request in certain native ceremonies, such as betrothals, marriages, &c.

NEW MEXICAN TARIFF

The particulars of amended schedules of the 1891 tariff of Mexico, as corrected in July, 1897, have recently been published. The following are some of the items which are especially interesting to the drug-trade (1 kilo. = 2.2 lbs.; 1 peso = 4s. 2d. *nom.*):—

Medicinal capsules, perles, granules, pills, tablets, and sugar-granules (but not filled capsules), 0.75 peso per kilo.

Chloral, 1 peso per kilo.

Chloroform, 1 peso per kilo.

Chlorides of gold and platinum, 16 pesos per kilo.

Drugs, chemicals, and other products not otherwise enumerated, 0.75 peso per kilo.

Ether, 0.2 peso per kilo.

Morphine and its salts, 6 pesos per kilo.

Silver nitrate, 2 pesos per kilo.

Pepsin, 1 peso per kilo.

Photographic dry-plates, 0.3 per kilo.

Quinine and other cinchona alkaloids, 1 peso per kilo.

Hypodermic discs and pastilles of alkaloids, 3 pesos per kilo.

Medicinal wines, 0.4 peso per kilo.

Iodine, 0.5 peso per kilo.

Iodoform, 1.5 peso per kilo.

IMPORT-DUTIES IN URUGUAY.

The Board of Trade inform us that they have received through the Foreign Office a despatch from her Majesty's Minister at Monte Video, reporting that the additional duty of 2½ per cent. on all imports imposed in January, 1896, for a period of two years by the Government of Uruguay is no longer being collected by the Customs authorities. There has, however, been no formal decree abolishing this additional duty.

VANILLA.

At the meeting of the New York College of Pharmacy held on January 13 five papers were read on vanilla. Professor Rusby treated of the cultivation, &c., of vanilla. He said that there are thirty-three species of vanilla now recognised. The process of curing vanilla-pods and preparing them for packing was described as he had seen it done in South America. Vanilla-packers, he mentioned, are subjected to poisoning, resulting from handling the beans, the symptoms being much like those resulting from poisoning, due, he thought, to penetration of the skin of the hand by oxalate-of-calcium crystals. Dr. S. E. Jelliffe treated of the microscopy of the subject, and said unscrupulous dealers often used benzoic acid to make a false appearance of vanillin on the beans. The microscope revealed the fraud readily, benzoic-acid crystals being flattened and rhomboidal, vanillin acicular and standing out at right angles from the surface of the fruit. Professor V. Coblenz treated of the chemistry of vanillin, and said it was frequently adulterated with acetanilid. Mr. A. Henning's paper was on the commercial varieties of vanilla. He said that that from the Seychelles Islands, an inferior kind, was the sort chiefly used in England. The Mexican vanilla grown at Papantla had the most exquisite odour, and was the kind used in the United States. The pharmacy of vanilla was considered by Mr. O. Kalish, who recommended an extract made from a formula containing 8 oz. of vanilla in a gallon of finished product. He said that vanillin could never displace vanilla as a flavouring-extract, as it lacks the delicate flavour of the natural bean.

Correspondence

In writing letters for publication correspondents should adopt a concise, but not abbreviated, style. They are requested to write on one side of the paper only. Letters, with or without a nom-de-plume, must be authenticated by the name and address of the writer. Queries should be written on separate pieces of paper, and the regulations printed under the sections to which they apply should be strictly observed.

Notice to Correspondents.

A Disclaimer.

SIR,—In our recent advertisement in the Winter number of THE CHEMIST AND DRUGGIST a cake of soap was represented bearing the name "Idalia," which we had made for one of our customers. It has been pointed out to us that this name is the registered trade-mark of Messrs. Steele & Co., of Birmingham, whose mark was thereby unwittingly infringed. We wish to take the earliest opportunity of drawing attention to the oversight.

Yours truly,

ALLEN & HANBURYS (LIMITED)

(Frederick J. Hanbury, Director).

The Canadian Wholesale Druggists' Association.

SIR,—Referring to your remarks in the issue of THE CHEMIST AND DRUGGIST of February 19 regarding the Wholesale Druggists' Association of Canada, page 302, we beg to say that, while the facts are substantially correct, you are in error in comparing the Canadian Association with any existing organisation in this country. The fact is that the Canadian Wholesale Association has no counterpart in the United Kingdom. It existed solely among wholesale firms, and although instituted primarily for the protection of the retailer, we found that it really acted to his prejudice. Our Montreal house, therefore, decided to make a firm stand on behalf of the retail trade, thus carrying out further a policy which we have always strenuously promoted. We hear that the action of our house in Canada has been heartily appreciated by the trade. Yours truly,

56 Hanover Street, Liverpool,

EVANS, SONS & Co.

February 22.

A Canadian Druggist on Trade with Great Britain.

SIR,—When sending the enclosed card [the DIARY coupon] I thought it might be of interest to give you some idea of how we Canadians view THE CHEMISTS' AND DRUGGISTS' DIARY and old-country trade. Looking through the DIARY, we note the Daisy advertisement, quite attractive, but have only a faint idea of what it is, and that from the last line, which refers to Easter eggs, so presume that it is some kind of package dye. Then cuts of bottles as shown in York Glass Company and H. Poths & Co.'s advertisements, &c., seem very old-fashioned; the old pear-shaped and other old styles of coloured show bottles are gone completely out, the new pendant bottles, made by such firms as Whittall, Tatum & Co., New York, taking their place, and they are certainly handsomer and less in the way. Then the tincture and salt bottles are only seen now in the oldest shops, the new recess-labelled bottles, which prevent the glass label from getting chipped, being generally adopted. Show ointment-pots "have gone out" here, ointment being kept in cupboards. The Pusc ware seems the same old old style, while here and in the U.S. new and taking styles are constantly coming out, and they sell. The United States and Canada have in large measure captured the rubber-trade, especially in syringes, H.W. bottles, &c. The prices of low grades are too low; fancy a two-pipe syringe in box at \$2.50 per dozen, while the best do not compare with yours. But your styles do not take so well here.

Photo goods seem to be now generally kept by druggists there. Here they are being introduced, and I am sure a large business could be done by old-country houses, if properly introduced, because all these goods now come from the U.S., and pay a larger duty.

German and French goods are taking the place of many English, just because they adopt the latest styles. Tooth and hair brushes, combs, &c., occur to me as examples. We would like to see English goods take the lead. There is a feeling that they are altogether more reliable and satisfactory. We are very loyal to the old country here, and always regret when their goods have to be pushed aside for others. This is not written wholly to run down old-country goods, for it is well known that in a vast number of lines they are far in advance, but to point out where, in my opinion, some improvements could be made. In closing, I would mention a few of the firms well known here, among others—Maw, Son & Thompson; Evans, Sons & Co.; A. & F. Pears; G. B. Kent & Sons; Burroughs, Wellcome & Co.; Howards & Sons; Burgoyne, Burbridges & Co.; Buchan; Nestlé; Robert Gibson & Sons; all of whom advertise in the *C. & D.*

63 Ontario Street,
Stratford, Ont., January 14.

Yours sincerely,
J. H. NASMYTH & Co.

From the Pacific Coast.

SIR,—I enclose you an American compliment to yourself, and trust you will not get on a jag on account thereof. [This is a cutting from a New York paper which thinks it knows more about political economy than we do.] Facts are stubborn things, and when brought home too testily make one feel uncomfortable.

But please sock it to him; it takes but little to ruffle this eagle. I very much want to see the old sod before I behold "kingdom come." My impressions are unfavourable at present. The *DIARY* arrived safely, and have no doubt that through the year it will prove useful.

I might say that I personally knew Mr. Thos. P. Balmer, of The Villas, York, whose death you recorded in your New Year's number—in fact, he was succeeded by my father's first apprentice at 4 Low Ousegate. He retired on being elected Sheriff of York City.

The *C. & D.* and its news is a weekly oasis to kindred spirits, even if it do not pipe the tune satisfactorily to the New York editor. By the way, are you thinking, talking, and working for Imperial Federation? If not, why not? It is a good thing. Push it along.

Yours very truly,
Rio Vista, Calif, January 20. THOS. A. SPIVEY.

On Labelling.

SIR,—It must often be a matter for wonder to the druggist (by examination) why he does not do a larger trade in the more generally used articles of a medicinal nature. I think I can point out one very solid reason. It seems to be taken for granted that the people know all about what the chemist sells. They do not. The people need educating, and the man who speaks in the plainest language—in the vulgar tongue—is likely to get the biggest slice of trade. In the establishments of chemists generally it looks as if they did not want trade—as if they demanded that they should be approached in the same way as doctors, lawyers, and other purely professional folk. They handle a large number of articles that the public are everlastingly using, and yet they deliberately label them in a manner that is mystifying. They have not as much chance of selling these things as the petty shopkeepers who have these same goods put up by a pushing wholesale man and labelled in good plain English. To take a few commonly-used articles at random. There is liquorice-powder for a start. The chemist keeps his in a stoppered bottle and it is most likely labelled "Pulv. glye. co." Is this likely to teach anybody, while waiting in the shop, anything of service? The neighbouring shopkeeper has a bottle in his window labelled in good bold characters "Compound liquorice powder." Again, take castor oil (and I have heard an expression of surprise on the discovery that I, a chemist by examination, sold this commodity). The professional man will style his, "Ol. ricini"; the pure shopkeeper labels his "Castor oil," which needs no interpreter. Again, you call your salts "Mag. Sulph.," which fails to convey the fact that you have Epsom salts for sale. And so on in the case of hundreds of drugs and chemicals. I admit that in carrying out this novel system of labelling a man would have to say good-bye to the mysterious feeling of satisfaction experienced in handling things under a name not understood by his patrons, but I assert

it would bring him business and profit. Imagine the effect for good it would have upon a man's trade if every bottle and every drawer proclaimed its contents. What an education to the people from whom you may fairly expect to draw custom, and to what an extent it would counteract the evil influence of the advertising pill and potion proprietor, whose goods, made familiar, are asked for while our own good honest stuff lies with us though it lieth not for us! As for myself, I mean to be up and doing. I shall ruthlessly scrape off all my gold labels with their unmeaning marks, and re-label in this manner: Upon a strip of bright red capping-paper I shall stick a smaller one of canary gummed paper such as is used for label-printing, and upon this, with the help of something like an "Easy" sign-writer, I shall print my letters in black, and this I have no doubt will make a good showy label, warranted to fetch 'em, catch 'em, and keep 'em.

Yours obediently,
St. Helens, February 9. SAMUEL WILSON.

Alcoholic Ginger-beer.

SIR,—Can nothing be done to stop the Inland Revenue authorities from swooping down on small shopkeepers and people who are often in poor circumstances, living in cottages on the roadside, and endeavouring to add to their often somewhat limited incomes by making and selling the old-fashioned ginger-beer to cyclists, pedestrians, and the general public?

All laws are supposed to be made for the good of the "public," but I fail to see where the "good" comes in here, unless it is for the "public-house," as it simply drives people there to get refreshment, many of whom would prefer not to go.

The case which I have in point is in this neighbourhood. Some months ago a gentleman called at a cottage on the roadside and asked for a bottle of their beer. As he looked rather superior to their general class of customers, the woman, who makes it chiefly for the consumption of her family, was careful to pick him out a good bottle—one securely corked, &c. When she had handed it to him he told her he was going to have it analysed. She has since been informed that it contained 3 per cent. of alcohol. According to law it should not contain more than 2 per cent., but anyone who has had experience in making knows that it is practically impossible to make it palatable and keep it at this standard. [According to law it may not contain more than 2 per cent. of proof spirit.—*ED. C. & D.*]

The woman has now received a letter from the Inland Revenue Office at Newark, stating that the Board have ordered an information to be exhibited against her for selling beer without a licence, but that they are willing to forego proceedings upon her paying a mitigated penalty of 1*l.* She is, however, informed that such payment is perfectly optional on her part.

Yours truly,
Newark-on-Trent. JOHN H. SMITH.

Waste Gold.

SIR,—*Appropos* of your quotation of "Sir W. Crookes on argentaurum" from Mexican dollars, auriferous silver is not confined to Mexico, but throughout Spanish America, where primitive amalgamation processes of extraction from native minerals are still in vogue; and the silver from the retort is used without refining. I once had occasion to make some pounds of a silver salt in Peru, dissolving for that purpose a quantity of the Peruvian "pesos fuertes" (*i.e.*, the "sol.") The nitric acid left a considerable residue of pulverulent gold. On another occasion, from 9½ oz. of old silver articles (including a syringe) I obtained 9 gr. of gold, nearly 1 gr. per ounce. The coins were more modern, and did not yield so large a proportion. Even some of their old church bells are reputed to contain gold.

Yours, &c.,
6 Sandon Terrace, Liverpool. JOHN P. CATFORD.

LEGAL QUERIES.

95/47. *Dens.*—We raised a guarantee-fund in 1895-96 to be prepared to carry to the High Court any really clean chemist's case, if we thought the dentists were acting oppressively. We took legal advice, and we invited the British Dental Association to arrange with us a test-case

for the High Court. This they declined to do, but they have been very careful ever since about touching chemists. We are still awake, and you can if you like promise a subscription to our fund. Subscriptions vary from 10s. 6d. to 10l. 10s. We want no money; but in the event of an action you would be called upon for your proportion up to the amount guaranteed. The committee, with whom the decision as to the suitability of any case rests, consists of Mr. John Wylde (Keating & Co.), Mr. Glyn-Jones, and the editor of this journal.

91/57. *Subscriber*.—"Sweet nitre" and "sweet spirit of nitre" are terms properly applied to spiritus ætheris nitrici P.L., which generally yields between 2 and 4 volumes of gas by Allen's method.

89/4. *S. F. D.* asks:—"Can I prevent a grocer putting a notice in his window, 'Cheapest house for patents,' when I am selling cheaper than he is?" [We do not think you can. The statement may be untrue, but it is a mere puff, and we do not think the Court would interfere. The public receive such statements with a considerable amount of scepticism, and nobody is deceived.]

88/72. *Subscriber* (London) proposes to erect two sheds in his yard, and does not wish to ask the County Council for permission, which might be refused. He has been told that if the sheds are made with small wheels at each corner, so that they can be moved if necessary, the County Council cannot interfere. He asks if this is correct. [We very much doubt whether the London Buildings Act can be evaded by the device suggested. Under the old Act a builder's office on wheels was held to be exempt, but in this case we presume that there would be no means of getting the sheds out of the yard without pulling them down, and we do not think the case would apply. There has not been a case decided, that we are aware of, under the Building Act of 1894. The wording of that Act is not exactly similar to its predecessor. To set the matter at rest might cost considerably more than the value of the sheds.]

99/58. *Dantzie*.—Whatever may have been the practice in years gone by, it is certain that since the Act of 48 and 49 Vict., c. 51, the term beer includes black or spruce beer, if it contains more than 2 per cent. of proof spirit (not, as you say, alcohol).

99/63. *Spero*.—An agreement restraining an assistant from commencing business in the same town would be valid (provided it was not defective in some other respect). It is possible the restriction might be permitted to extend to a county, but it certainly could not extend to, say, all Ireland. Such restrictions must be reasonable, and each case will be decided on its merits.

99/53. *R. C. S.*—There is no necessity that a candidate for the Minor examination should have been formally apprenticed. What is required is a certificate that he has for three years been registered and employed as an apprentice or student, or has otherwise for three years been practically engaged in the translation and dispensing of prescriptions.

97/14. *Frequent Occurrence*.—If a chemist sells abortifacients with a knowledge, or a reasonable suspicion, that they are to be used illegally, he becomes *particeps criminis*, and may find himself not only censured, but possibly sentenced.

MISCELLANEOUS INQUIRIES.

85/49. *Carnarvon*.—We should think the earths you send would be of service to potters, and would advise you to write to such people as Doulton's and see what they think of them.

90/55. *W. E.*—Silver Marking-ink.—See *C. & D.*, February 12, page 296.

90/60. *Sivel*.—Fifteen per cent. is about the profit chemists get on drugs supplied to medical men.

89/57. *Ceta*.—See *C. & D.*, September 12, 1896, page 425.

86/24. *Bumble Bee*.—(1) Essence for Lemon Wine:—

Oil of lemon	℥xxx.
Essence of vanilla	ʒij.
Tincture of lemon	ʒiiss.
Tincture of fresh orange-peel ...	ʒss.
Tartaric acid	ʒij.
Salicylic acid	ʒss.
Orange-flower water... ..	ʒij.
Caramel	ʒj.
Syrup to	ʒxxvj.

Mix.

(2) *Cherry-wine Essence*.—See *C. & D.*, November 21, 1896, page 751. (3) A tincture of turmeric (ʒiv. to Oj.) is used for Colouring Jellies, &c., yellow.

90/64. *W. A. C.*—Polishing-paste.—Taking the following formula for a red paste as a model, you can construct the different coloured pastes you desire. White is managed by using as a base precipitated silica or elutriated kieselguhr, red by ferric oxide, and black by the addition of lampblack:—

Ferric oxide	ʒviij.
Paraffin wax	ʒij.
Lubricating-oil	ʒvj.
Oleic acid	ʒj.
Oil of mirbane	ʒss.

Melt the paraffin wax with the lubricating-oil, and mix with the ferric oxide, previously well levigated; then add the oleic acid and mirbane.

83/6. *Sylvine*.—Light-green Ink for using with a brass stamp:—

Malachite green	ʒij.
Glycerine	ʒvj.
Water	ʒj.
Rectified spirit	ʒj.

Dissolve.

71/57. *Frequinius*.—We should be inclined to think that tr. tolu has been written in your prescription instead of syrup. tolu. Could you not consult the doctor?

79/28. *Assistant*.—It is possible the "other chemist" used a little mucilage to suspend the quinine, which made it more readily diffusible.

85/4. *W. I.*—The prescription reads, "hydroxyl-free ol. morrhue," and refers to the preparation of Peter Möller.

81/27. *Smilax*.—(1) The Excelsior Drug-mill is the best of those which you mention for grinding small quantities of drugs. The "Devil" disintegrator deals only with large quantities. (2) *Gripe-water*:—

Ammon. bromid.	gr. xxx.
Aq. anisi	ʒiv.
Aq. anethi ad... ..	ʒviij.

ʒj. for a dose.

84/47. *S. P.*—Mastic-varnish for oil-paintings:—

Mastic	ʒxij.
Venice turpentine	ʒj. ʒvj.
Camphor	ʒss.
Turpentine	ʒviij.
Spirit	ʒxxxiv.

Dissolve by means of a water-bath.

240/15. *Ednad*.—We do not undertake recognition of powdered drugs, which are of no general interest to our subscribers. Whatever the sample is it has gone rusty and should be consigned to the dustbin.

93/28. *B. H. A.*—Colza oil, being in some degree a drying oil, gives the crust you complain of when burnt in sanctuary lamps. The addition of a tenth part of paraffin would be a little improvement.

93/10. *Kerosine* (Secunderabad).—Oils of verbena and citronella are generally used for disguising the smell of paraffin.

93/4. *Signia*.—Legg's "Examination of the Urine" and Allen's "Chemistry of the Urine" are the books you require

92/56. *Perspire*.—Sweating-powder, without opium, as a substitute for Dover's powder:—

Potass. nitr.	5ij.	5ij.
P. camphor.	5ij.	
P. ipecac.	5ij.	

Misce bene.

A 15-gr. powder is to be taken at bedtime.

92/25. *W. T. B.*—Non-greasy Eczema-cream:—

P. ac. boricæ	5j.
Zinci oxidi	5j.
Pulv. amyli	5j.
Pulv. tragacanth.	5ss.
Glycerini	5ss.
Aquæ	5vij.

Mix the boric acid, zinc oxide, and starch-powder in a mortar, add the other ingredients previously mixed, and rub the whole together till a smooth cream results.

90/17. *Photos*.—Concentrated Developer.—See *C. & D.*, January 23, 1897, page 140, and May 22, 1897, page 809.

90/23. *Ajax*.—Dividends were first paid by Camwal in 1882.

96/73. *M. H. A.*—The object of nitric acid in Flour-pastes is to give adhesiveness, which it does by its breaking-down action on cellulose.

97/43. *Suez*.—Finely-powdered Boric Acid, tinted and perfumed, makes a very good face-powder, and has the advantage of being soluble.

95/58. *California*.—Health-saline. See answer to "H. T. & Co." (98/43).

94/38. *Reader*.—Washing-liquor:—

Yellow soap	½ lb.
Turpentine	8 oz.
Strong solution of ammonia	20 oz.
Water	1 gal.

Dissolve the soap in ½ gal. of the water by heat, and when cold add the turpentine, shake well, then add the ammonia and the remainder of the water.

94/67. *C. M.*—"Pigments, Paint and Painting," by G. Terry (Spon), will suit you.

95 54. *E. E.*—(1) *Tr. Opii Aq.* See page 485, 1897 DIARY. (2) *Tr. Opii, P.L.*:—

Powdered opium	3 oz.
Proof spirit	1 quart

Macerate seven days, and strain with expression

95/39. *H. A. W.*—Bay-rum:—

Ol. myricæ acris	5x.
Ol. pimentæ	5j.
Æther. acetic.	5ij.
Spt. vini rect.	Cong. ij.
Aquæ	Cong. ij.

M.

94/26. *Mona*.—(1) Lemonade-powder:—

Ac. tartaric.	5j.
Ol. limonis	℥xx.
Tr. curcumi	5j.
Sacch. alb.	lb. j.

Mix the tincture and oil with a few ounces of the sugar, add to the bulk, and sift.

(2) *Ginger-beer Powder*:—

Ac. tartaric.	5j.
Sacch. alb.	lb. j.
Tr. curcum.	5ij.
Ess. zingib.	5j.

Mix the essence and tincture with the sugar, and dry; then add the tartaric acid.

97/66. *F. G. G.*—Urotropin (hexamethylenetetramine) is a white crystalline solid formed by the action of ammonia on formalin. It is soluble in water, and is given as a uric-acid solvent in doses of 15 to 25 gr. daily in one dose in the morning.

95/4. *J. J.*—The doctor is perhaps referring to equinine as a tasteless preparation of quinine. It, however, should not be given in solution, as its bitterness becomes apparent.

98/45. *J. H. J.*—We will give you a formula for Black-japan Varnish if you wish, but you cannot make it without a varnish-maker's plant.

93/2. *Carrick*.—The best way of Clarifying Irish-moss Mucilage is to dilute it with water, and filter, afterwards concentrating by evaporation.

97/54. *A. B. C.*—Flower-fertiliser for pot-plants:—

Ammonium nitrate	2½ lbs.
Ammonium phosphate	1½ lb.
Potassium nitrate	1 lb. 9 oz.
Ammonium chloride	5 oz.
Calcium sulphate	6 oz.
Ferrous sulphate	4 oz.

Dissolve in the proportion of a teaspoonful in a pint of water, and water the plants with the solution.

99/4. *Wilts*.—We find the contents of the ounce tins of the chemical you name exact weight in some we have tried.

98/71. *S. S.*—(1) *Baby Syrup*:—

Ol. anethi	℥viii.
Spt. amm. arom.	5j.
Mag. carb.	5j.
Aq. ad	5vj.

Add the oil of anise to the spirit. Shake, and triturate with the magnesia. Add the water, mix, and filter. To the filtrate add—

Sodii bromid.	9j.
Potassii bicarbon.	5ss.
Tr. cardam. co.	5ss.
Syr. rheados ad	5vj.

M.

5j. in a tablespoonful of water to be given in sips.

(2) Tincture of cantharides is in the second part of the schedule, and requires to be labelled "Poison."

99/24. *B. A.*—Write to the Secretary of the Institute of Chemistry, 30 Bloomsbury Square, W.C., for the syllabus you require.

93/2. *Carrick*.—Removing Indian-ink tattoo-marks from the skin.—Apply nitric acid with the stopper of a bottle, or glass rod, to the stain. After a few minutes wash off with cold water. When the scab forms in a few days remove it, and, should inflammation supervene, poultice and bathe with warm water.

99/8. *Dens*.—Oak-stain Varnish:—

Shellac	1½ lb.
Bismarck brown	1 oz.
Spirit	1 gal.

Dissolve

76/61. *Belmont*.—The mixture we cannot identify.

68/47. *R. G. H.*—The Felon-mixture for sheep is composed of turpentine and olive oil in about equal parts.

93/54. *Curler*.—Curling-powder:—

Pulv. tragacanth.	5j.
Sodii bicarb.	5viii.
Ol. geranii	℥xx.

M.

Make into ½-oz. packets, and direct the contents of a packet to be dissolved in ½ pint of soft water.

83/46. *Buda*.—Baiting-oil for Rabbit-traps:—

Ol. anisi	5j.
Ol. viridis	5iv.

M.

17/2. *H. C. B.*—Antiseptic Cream:—

Powdered boric acid... ..	1 oz.
Powdered oleate of zinc	1 oz.
Lanoline	2 oz.
White vaseline	2 oz.

Mix,

