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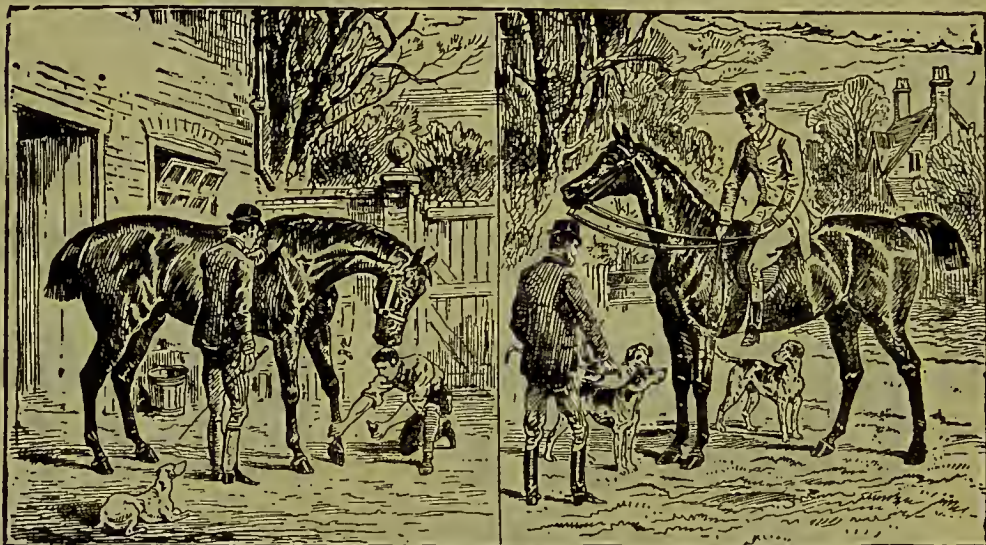
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MARCH 1, 1889.

CONTENTS OF NO. 3, VOL. IV.

Editorial Notes:—"Intercolonial Reciprocity"; "The Accounts of the Pharmaceutical Society of Australasia"; "The Aim of Study"; "The Pharmaceutical Society of New South Wales"; "How are Chemists to get Apprentices"; "The Price List Question"; "Chemists' Labels and Chemists' Printing"; "Photography and Photographic Apparatus and Materials for Chemists"; "The Dentists Register of Victoria"; "Strychnine in Snake Bite"; "The Pharmaceutical List of Queensland."

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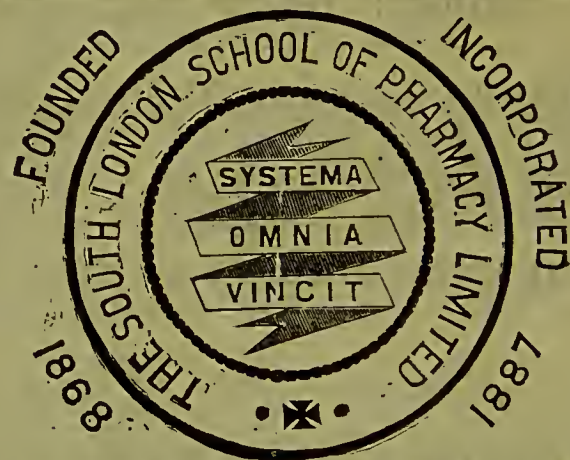
Tasmania.—Reciprocity with Victoria; General News.

Victoria.—Pharmacy Board (Reports of Monthly Meeting); Pharmaceutical Society (Report of Monthly Meeting and Annual Report of the Council of the Pharmaceutical Society of Australasia for 1888); the Veterinary Board and Veterinary Act; General Trade News.

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TO THE ELECTORS OF THE PHARMACEUTICAL COUNCIL.

MR. W. D. SAVAGE having declined to seek re-election, I have been requested to become a candidate for the vacant seat, and have pleasure in soliciting your votes to succeed him as a representative of retail chemists.

I am desirous of seeing the Pharmaceutical Council more fully in sympathy with retail chemists and druggists, more anxious to advance and protect trade interests, and more ready to encourage provincial education, and believe that, if greater attention is given to these things, chemists generally will accord to the Society hearty and willing support.

Whilst earnestly desirous of promoting the education of all entering the business, I am not in favour of the Pharmacy Acts Amendment Bill in its present form. I am of opinion that if the legislature requires a professional education from chemists, that the same protection which the professions enjoy should be accorded. The evils of cramming can be easily avoided by making the examinations more practical and thorough.

The encouragement of provincial education should receive the early attention of the Council. If a number of prizes, of books, medals, or certificates, were offered annually to apprentices for proficiency in chemistry and pharmacy, youths would be encouraged to steady, persevering study, to the benefit of themselves and employers.

To protect and advance trade interests, I think the Pharmaceutical Society should negotiate a settlement of disputed points with the Board of Inland Revenue, should energetically oppose the proposed increase of railway rates, and take effective measures to protect the trade against the competition of unqualified men.

Whilst recognising the ability with which the *Pharmaceutical Journal* is conducted, I think that it might be made much more useful than at present to subscribers, their assistants and apprentices. A little less science and a little more useful intelligence is desirable. Educational articles, suited to apprentices and junior assistants, might be inserted with advantage. I should like to see the column of "Dispensing Memoranda" recommenced.

As a Retail Chemist myself, having to contend with as keen competition as it is possible to meet with anywhere, I heartily sympathise with retailers in the present state of affairs, and, if elected, will do all in my power to remedy reasonable grievances, and advance those trade interests which have been so much neglected in the past.

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Soluble essences (non-alcoholic, for mineral waters); lime-juice cordial; chlorodyne (perfectly transparent); cascara sagrada cordial; concentrated waters (1 to 40); essence rennet (permanent, no salt); hop bitters; liquor carbonis (resembles Wright's); chemical liquors for syrups (stable); lac rosarum (inseparable, made in few minutes); ink (resembles "Dichroic"), elixir phosphori, invigorating tonic; sponges bleached (golden yellow); liquid dentifrice (like "Floriline"); marking-ink, sine silver, writing executed defies chemicals; saline (Evo's or Lamplough's); magio neuralgic drops; lime-juice and glycerine (white as milk, inseparable); pill-coating, pearly white, no mastic or mucilage; crimson marking-ink; hair-restorer, colourless, no deposit, sine silver; oleum flavum concentratum, stable colour for pomades; soluble ginger (like Hay's); liquor copalite comp. c. bichu et matico (like Richardson's); liquor santal. flav. (resembles Hewlett's); taraxacum podophyllin, iron quinine (both resemble Pepper's); many perfumes, also toilet requisites; state wants; lists issued; all inexpensive to prepare; 5s. each (5 for 17.); analyses undertaken. Readers are warned against cheap substitutes. I was first to advertise formulae in this journal. "Analyst," Mr. Warnes, 6 Rochester Square, N.W. (Only prepaid inquiries answered.)

Literature.

From 1860, *Chemist and Druggist and Journal*, odd monthlies, 4d.; weekly, 1½d.; offers. Williams, Chemist, Coleford, Gloucester.

Pharmaceutical Journal, posted Mondays, in exchange for *Chemist and Druggist*. Holmes, Brill.

Offers wanted for the *Pharmaceutical Journal* from 1841 to 1872, 30 vols., bound in half-brown calf with marble sides, lettered; also *Pharmaceutical Journal* from 1876 to 1888, unbound. Sigma, 4 Lynton Road, Crouch End, London, N.

Soda-water Machinery

Two large generators and gasometers, complete with pipes, fittings, improved acid tanks, purifiers, &c., cheap. Address, Manager, Chemists' Aerated and Mineral Waters Association (Limited), Bristol.

Shop Fittings.

Follows & Bate 4-guinea paint-mill, nearly new, French counter scales, gold-labelled shop rounds, 6 gall. carboy, specie jars. Clayton, Chemist, Oxford.

Drawers, 12 ft. long, mahogany fronts, glass labels and glass knobs, price 8l.; also lockers to go under same, stained mahogany, 50s. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Bent plate-glass counter-case, 6 ft. long, as Maw's A 18, price 5l. 10s.; very handsome dispensing screen, 6 ft. long; 4 ft. ditto; desks cases, counters, &c.; cheap. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Bent glass counter or window cases.—6 for sale, each measuring 3 ft. long, 17 in. wide; they have silvered glass fall-down backs, with spring catch; 28s. each, or 7l. 10s. the lot. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Fittings for immediate disposal.—Pair handsome pear-shape carboys, with large cut-glass stoppers; large plate-glass case on stand, 4 ft. x 4 ft.; a variety of drawers; must be sold to clear the premises. Apply, Messrs. Orridge & Co., 22 Ludgate Hill, E.C.

Four show jars, 27 inches high, with handsome, gilt enamelled glass covers, as figs. 1, 17, 18, 19 Maw's, mahogany stands, labelled rhubarb, colocynth, magnesia, and arrowroot; 2 2-gall. and 1 4-gall. show carboys, cut-glass stoppers; offers; owner no further use. W. Rowe, Chemist, Leicester.

Shop-fittings, consisting of wall, counter, tooth-brush, desk, and other show-cases, dispensing-screens, counters, drawers, mirrors specie-jars, carboys, shop-rounds, ointment-jars, pill-machines, marble slabs; also window-fittings, glass shelves, and a variety of other articles; half price; easy payments on hire. Natali & Co., 184 Aldersgate Street (nearly opposite Maw's).

For Sale.—Handsome dispensing screen, 6 ft. long, with mirror centre and marble slab, 5l. 10s.; ditto, ditto, new design, 6l. 10s.; 180 new gold-labelled shop-rounds, jars, and syrup bottles, 9l.; 24 4-lb. best pink jars, gold labelled, with earthenware linings, 4s. 6d. each; 24 2-lb. blue jars, labelled, 1s. 6d. each; 12-foot range mahogany-fronted drawers, with bevelled plate glass labels, 9l. 10s.; 12-foot range polished pine ditto, gold-labelled, 6l. 10s.; 12 4-lb. blue shop jars, gold labelled, nearly new, 32s.; 4 4-gallon carboys, 10s. each; 6 3-gallon ditto, 7s. each; 4 8-gallon ditto, 15s. each; dental case, with circular front, 50s.; mahogany case and desk, 50s.; 1 door case, with mirror back, secondhand, 30s.; tooth brush case, bent front, with glass shelves and mirror back, 30s. R. Tomlinson & Sons, Bond Street, Birmingham.

Miscellaneous.

Surplus patents; send for list. Ridley, Carlisle. Tricycle, convertible sociable, for exchange. 85 Melbourne Grove, East Dulwich.

Grenet galvanic battery (Maw's), as new; list price 2l. 4s.; what offers? Wells, 18 High Street, Kidderminster.

Five 200-gallon and 3 100-gallon tanks, with brass taps and covers, in good condition. Harston, Chemist, Lincoln.

Microscopic slides for sale, anatomical, pathological, interesting, &c.; lists and sample free. B., 233 Maida Vale, W.

Surplus stock.—¾ cwt. cutch, 28 lbs. asphaltum, 6 bottles ol. citronelle, 22s. the lot. 19 Moseley Road, Birmingham.

Instruments for talipes, similar to Maw's, fig. 2, p. 288, and fig. 4, p. 289; offers requested; will send on approval; good condition. Smart, Steyning.

Soda-water Bottles.—350 dozen patent glass stoppered, Reliance, &c., in doz. cases; 150 doz. splits, cases of 24; 150 doz. cork bottles; also 12 nearly new varnished 4½-gall. oak beer casks; 1 2-carboy vitriol tank; offers; small electric lamp, 15s. 6d. Barnett, 117 Uxbridge Road, W.

Microscopic objects, 5s. dozen, including thousands of gorgeous polarising, brilliant opaque, &c., all mounted on 3-by-1 glass slips; 4 dozen sent, carefully packed, postage paid, for 2ls. to Belgium, France, Germany, Switzerland, Australia, Canada, India, Cape, New Zealand, and all British Colonies; Natural History books wanted in exchange. Henry Ebbage, 344 Caledonian Road, London.

Declining business.—On sale, cheap, 3 ft. diam. mixer, with steel scrapers, new, cost 36l., will take 18l.; also a large quantity of turned wood pillboxes, 1½ in. diam. by ¾ in. deep outside, cases of 53 gross 9d. per gross, small lots 1s. per gross; and 2 in. diam. by 1½ in. deep, 3s. per gross; small piping-press, &c., &c. Parkinson, 39 Dover Street, Manchester. Wonderful bargains; must be sold.

WANTED.

Four and six gallon swan-necked carboys. 273/18. Mixing machine, large size, with wheel. Ridley, Carlisle.

Patent soda-water bottles, cases, and filling machine. H. Row, Braintree.

Pfeiderer's kneading machine; state size, price, and condition. Heald, Bnrham, Bucks.

Salable patents and proprietary articles, good condition; send list and lowest price. 257/9.

Small tincture press, at once. 14A Napier Street, Hoxton.

Shop-fittings of all descriptions. Particulars to Natali, 184 Aldersgate Street, E.C.

Second-hand copy Gray's "Supplement." Refer, stating price, to "Deltaline." Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

Attfield's, Bentley's, Ince's, and Wills' books (latest). Vincent, 90 Islington Road, Brigh on.

Southall's boat, clean, good condition; state lowest price. Knott, Ashbrook Road, Upper Holloway, N.

Second-hand fittings, shop-rounds, carboys, &c. Particulars, with lowest price, Davies, 307 Shirland Road, London.

Four window carboys, about 10 or 12 gallons. Apply, Loye & Co., 89 and 90 Treville St. Plymouth.

Nest mahogany drawers, gold labels, glass knobs, 11 ft.; shop-rounds, counter cases, dispensing screen, ointment jars, counter, 10ft. x 5ft. Matthews, Chemist, Middlesbrough.

Southall's model cod-liver oil fishing-boat, good condition; Shirloy's menthol figure; composition leg for showing silk stocking, &c.; samples of took and sheet almanacks for 1890; fancy tablets, showcards, and lettering for windows. Brewerton, Padham, Lancashire.

Oyez! Oyez!! Oyez!!!



THIS ELEGANT BISCUIT-CHINA FIGURE, AN ORNAMENT TO ANY SHOP,

GIVEN AWAY

To Purchasers of 25/- worth of

SHIRLEY'S A1 BRAND MENTHOL

OR TWO IF 40/- ORDER IS PLACED.

The following special parcels have been arranged to suit all classes of trade:—

PARCEL 1. 25/- 4 doz. 2d. 1 doz. 3d. 2 doz. 3½d. 3 doz. 4d. 2 doz. 6d.	PARCEL 2. 25/- 4 doz. 6d. 2 doz. 4d. 1 doz. 1s.	PARCEL 3. 25/- 3 doz. 3d. 2 doz. 1s. 1 doz. 4d.	PARCEL 4. 25/- 1 doz. 9d. 2½ doz. 1s. ½ doz. 1s. 6d.
PARCEL 5. 40/- 4 doz. 2d. 2 doz. 3d. 3 doz. 3½d. 5 doz. 4d. 4 doz. 6d.	PARCEL 6. 40/- 5 doz. 6d. 3 doz. 4d. 2½ doz. 1s.	PARCEL 7. 40/- 4 doz. 6d. 4 doz. 4d. 1 doz. 9d. 2 doz. 1s.	PARCEL 8. 40/- 4 doz. 1s. 2 doz. 9d. ½ doz. 1s. 6d.

By calculating what each of the parcels would realise when sold, it will be found that they yield an average profit of 80 per cent. to the retailer on his outlay.

Numerous letters have been received already, testifying to the satisfaction given by this little figure. One firm writes—"We have just received the figure, and must indeed say we are highly pleased with it, and have it in a prominent place on our counter." Another writes—"It is quite the centre of attraction of my establishment." Another—"Figures sold a dozen cones first day of showing them."

A1 COCAINE & MENTHOL TOOTHACHE TUBE. 6d.

12 ON A CARD. 3/6 DOZ.
Sells really well.

A1 CORN & WART TUBE, 6d.

12 ON A CARD. 2/3 DOZ.
JUST IN TIME FOR THE SEASON.

A1 TOOTH SOAP,

Red or White, fragrant and cleansing, put up in hinged metal boxes, 3/9 dozen.

CUT-GLASS & OTHER SMELLING BOTTLES.

NOW IS THE TIME TO BUY.



OVER 100 PATTERNS TO CHOOSE FROM.

Chemists often find a difficulty in selling these goods for want of a proper display being made, and to meet this a handsome GLASS SHOW CASE, with mirror back, and lined with velvet, will be given away to purchasers of £1 worth of bottles. The case, which opens at the back, so that the goods can be got at from the counter, is not too large, but just a handy size. Buyers can choose their own assortment, but if left open can rely upon saleable ones only being sent.

	Per doz.
No. 3.—Small Handy Watch	5/9
„ 20.—A Bottle that always pleases.....	5/3
„ 78.—Beautifully cut, highly polished ..	5/-
„ 13.—A very saleable Bottle, large Watch	6/-
„ 35.—Tube Shape, octagon cutting	6/3
„ 14.—Octagon cut, square stopper	5/-
„ 59.—Substantial Toilet Pattern	7/3

Special terms to Wholesale Buyers.

A FIRST-CLASS 6d. STOPPERED LINE.

Watch Shape.
Octagon cutting.
3/6 dozen.
39/- per gross.



Filled with
Sponge,
Ammonia, and
Scent.
12 in a box.
4/- dozen.
45/- per gross.

	Per doz.
No. 8.—Large Watch, cut edges	6/6
„ 77.—Globe Pattern	5/-
„ 71.—Handsome Bottle, English stoppered	6/-
„ 50.—Rich Pattern, wavy cutting	6/6
„ 102.—Barrel Shape, wide mouth.....	7/6
„ 33.—Pretty Pattern, wide month.....	6/6
„ 11.—Large Toilet, polished stopper....	18/-

Write for quotations.

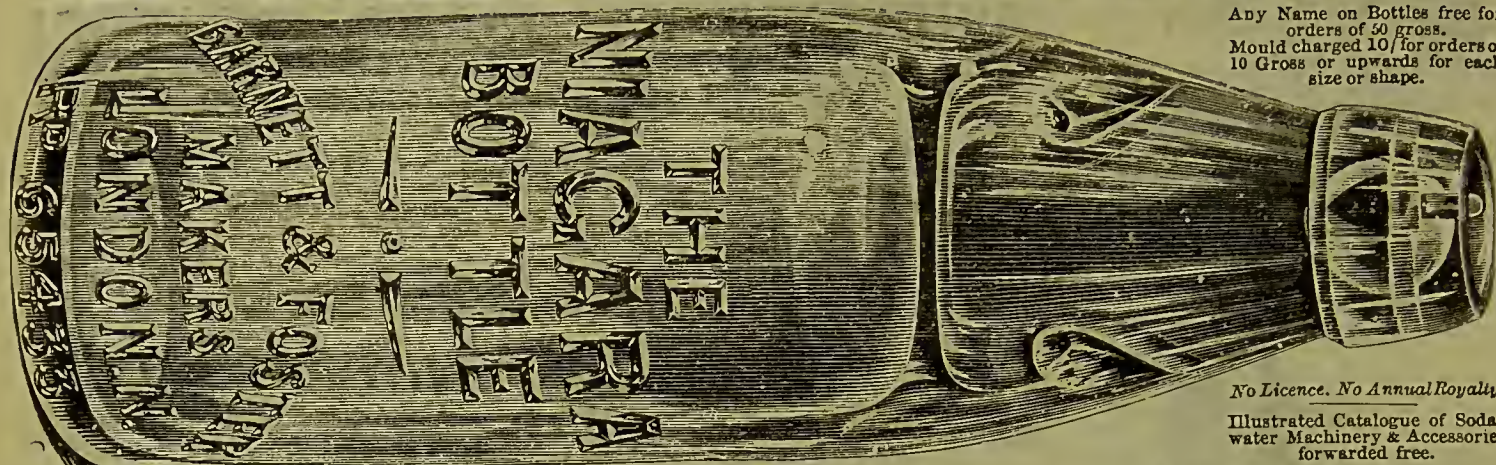
No. 1.—THE NICKEL CAPPED BOTTLE OF THE SEASON, bound to sell by grosses if a good display is made, being lined with strongest Ammonia, and agreeably perumed. Put up 12 in a hinged partition show box, 2/- doz., 20/- gross. This Bottle can be had with a mirror on instead of label, 2/6 doz., 26/- gross. Special quotations for 5, 10, and 20 gross lots, delivered as required, so as to be fresh.

ARTHUR W. SHIRLEY, 30 PATERNOSTER SQUARE, LONDON, E.C.

And 11 & 12 ROSE STREET, NEWGATE STREET, E.C.

THE DIAMOND MARK.

To secure the best Hungarian Aperient Water

DEMAND THE DIAMOND MARK,And insist upon receiving the HUNGARIAN APERIENT WATER sold by the APOLLINARIS COMPANY (LIMITED), LONDON.
OF ALL DRUGGISTS AND MINERAL WATER DEALERS.**THE "NIAGARA" GLOBE-STOPPERED BOTTLE.**

Present Prices: — { 5 oz. 15/6 7 oz. 16/6 10 oz. 18/0 12 oz. 18/6 14 oz. 19/6 16 oz. 20/6 }

At our Works.
Hunslet, Leeds, YORKSHIRE.

EXTRA RINGS, 1/8 per Gross.

SEND FOR SAMPLE AND COMPARE!

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and General Providers to the
Aërated Water, Wine, Beer, and Cyder Trades.**BARNETT & FOSTER,**"NIAGARA WORKS," 26^T EAGLE WHARF ROAD, LONDON, N.

GOLD MEDAL, Amsterdam, 1883. DIPLOMA OF HONOUR, Paris, 1887.

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MACHINISTS, PATENTEES,

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SYPHONS WITH SHORT LEVER, with Metal Tops of Pure Tin, carefully mounted, and the glass of the *first quality*.

GAZOSELTZ, for the instantaneous production of Aërated Beverages at table. Anyone can use them.

"CONTINUOUS PROCESS" Apparatus complete, guaranteed without flaw in construction, possessing perfect action, and tested to a high pressure, while fulfilling every desirable condition of economy and sanitation.

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**EUGENE GERAUT & CO.**

139 & 141 FARRINGDON ROAD, LONDON, E.C.

ALL SELTZOGENES AND SYPHONS,

Previous to being delivered, are tested at a pressure of 240 lbs. per square inch, being double that which they are used at; by this we can guarantee every machine on its leaving our firm.

It must be distinctly understood that all Seltzogenes and Syphons bearing our name are of pure Tin, and made on the PREMISES OF THE ABOVE FIRM, consequently must not be confounded with other cheaper, and inferior foreign goods that may at any time be forced on the market. The ever-increasing demand for our goods convinces us that we are, as hitherto, the leading and largest firm in this class of trade.

Complete with Funnels, Stopper, and directions for using. For order of £5 and upwards Customers can have their Names stamped on Metals free of charge.

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POWDERS FOR SELTZOGENES AND GAZOGENES.

Illustrated Price List on application.



TO AERATED WATER MANUFACTURERS

XXXS

SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

Honourable Mention: International Food Exhibition, Agricultural Hall, London, Oct., 1880. Gold Medal: Soc. of Arts, Paris, 1883.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER,
A Pure Essence of the Finest Ginger.
Trade Price 5/ per lb.; 12 lbs. and upwards, 4/6.

HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER,
For First Quality Ginger Ale.
Trade Price 5/6 per lb.; 12 lbs. and upwards, 5/.

HAY'S GINGER ALE EXTRACT,
For Second Quality Ginger Ale.
Imparts Pungency, Coloring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma.
Trade Price 4/6 per lb.; 12 lbs. and upwards 4/.

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For Third Quality Ginger Ale.
This Essence makes a beverage that is unsurpassed by the so-called finest Be. fast Ginger Ale.
Trade Price 9/ lb.; 12 lbs. and upwards, 8/6.

THESE ESSENCES
Have obtained the Highest Testimonials from all the Medical Journals, and from the Principal Trade Journals in this and other countries.



For ORANGE, VANILLA, and all other Essences,
SEND FOR PRICE LIST.

HAY'S HOP ALE ESSENCE,
For the manufacture of the Finest Aerated Hop Ale. This Essence is made from the choicest Hops grown, and is unrivalled for its peculiarly fine Hop Flavour and Aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer.
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HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS,
No. 1. Highly Concentrated.
Trade Price 8/6 per lb.; 2 lbs. and upwards 8/.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS,
No. 2. Makes an exquisitely fine Lemonade.
Trade Price 8/6 per lb.; 12 lbs. and upwards, 8/.

HAY'S LEMON FLAVOUR.
Imparts to Lemonade all the Fine Aroma and Flavour of the choicest Lemons.
Trade Price 5/ per lb.; 12 lbs. and upwards 4/6.

MANUFACTURING
CHEMIST
BEVERLEY ROAD

FLATNESS OF TASTE

SO COMMON IN FILTERED WATER,

OBVIATED

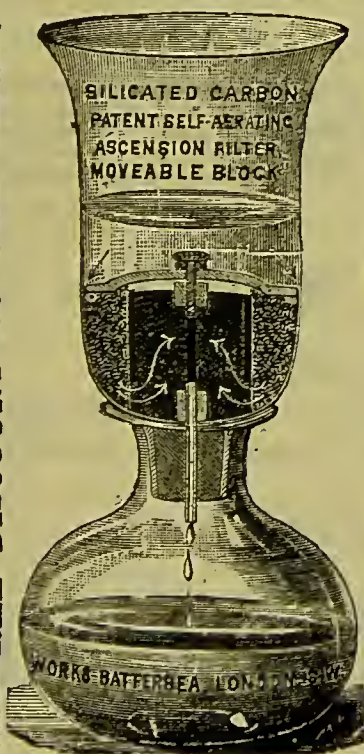
BY USING

SILICATED CARBON FILTERS

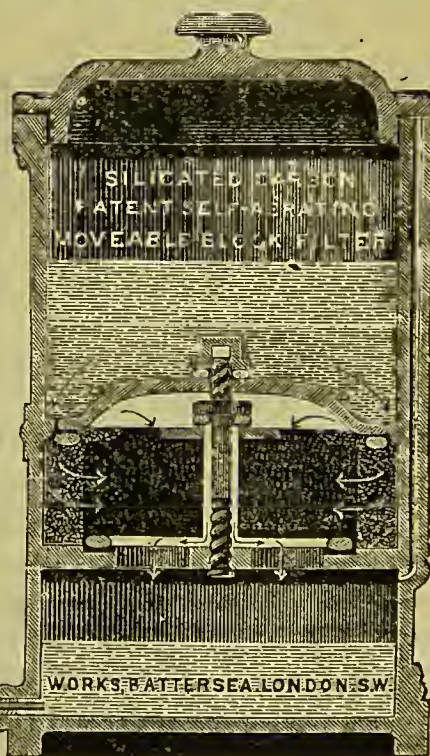
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By means of which the water is Aerated and Filtered simultaneously, rendering it, even after boiling, Pure, Bright, and Palatable.

The Silicated Carbon Block can be Instantly Removed, leaving the whole of the Filter Open for Inspection and Cleansing.



Glass Table Filters.



Domestic Filters.

FOR PRICES AND FULL PARTICULARS, WRITE TO THE
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146, MINORIES, LONDON, E.C.
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AND ALL ACCESSORIES FOR THE TRADE

BRATBY & HINCHLIFFE
HEAD OFFICE
SANDFORD ST., ANCOATS, MANCHESTER.

BOXES BOTTLES, MACHINERY,
ESSENCES
Catalogues, Circulars, Testimonials
Post Free



SYPHONS & SELTZOGENES

GREAT REDUCTION IN PRICE.

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.

WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED.



SODA-WATER MACHINERY.

MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them **THREE GOLD MEDALS**, which were awarded as follows:—

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Aerated Water Engineers and Glass Bottle Manufacturers,

SANDFORD ST., ANCOATS, MANCHESTER,

And at 146 MINORIES, LONDON, E.C.

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Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, MAY 4, 1889.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

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10.—WILTSHIRE.—Good town; Light Retail and Dispensing Business; returns nearly £450 yearly; value of stock and fixtures about £450.

11.—WESTERN COUNTY.—Old established good-class Business; returns last year £2,500, with nearly £550 net profits; large shop and good stock; full investigation allowed; price £1,200; references required.

12.—WEST OF ENGLAND.—First-class profitable Business; returns about £950; handsome shop and good stock; about £950 required.

13.—WORCESTERSHIRE.—Dispensing and Retail; situate in the centre of a very favourite locality; handsome double-fronted shop and good stock; returns £2,500; new lease to be granted; price about £1,500.

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MESSRS. ORRIDGE & Co.'s Register is open either to Principals or Assistants
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TO LET.

SOUTH KENSINGTON.—Shop and four rooms in first-class position; lease at low rent of £70; fixtures and stock £35. Apply, Minty & Harris, House Agents, 16A Fulham Road, S.W.

CHEMISTS Shop and six-roomed House in densely populated neighbourhood, main thoroughfare; plate-glass front; shop handsomely fitted in mahogany; lease granted at £32 per annum; premium only £15; sure fortune; no other chemists near. Mr. S. Glendining, 51 St. Leonard's Street, High Street, Bow, London, E.

CENTRAL Business Premises to let (immediate possession); grand position, facing market-place (shop will be divided and let separately if desired); double plate front; counters and fixtures; house, 12 rooms, separate, or with either half-shop; splendid opening; population 6,000; rent moderate; see photograph. G. Maynard, Shepton Mallet, Somerset.

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ADVERTISER wishes to meet with a qualified Chemist with a view to starting or purchasing a Chemist's Business. Address, O. J. Weakley, 87 Boston Street, Hulme, Manchester.

WANTED, a Partner to assist Advertiser in extending an old-established Chemist's Business in the West Riding of Yorkshire; must be a qualified man. Particulars, B. H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIP in good-class Dispensing and Family Business, with a view to succession on mutual terms; first-class references; no agents. Full particulars to "Partner," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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An Old-established Business in good thoroughfare, London, S.E.; returns £8 to £9 weekly, giving profit of £260; rent £50, on lease; good house and long garden, private entrance; price £325, or offer will be considered.

Corner Shop, in good position, North London; returns £6 a week, increasing; large house, part let off, nearly covers rent; lease 14 years; good shop, well fitted; price £180; a capital opportunity for good Prescriber.

A good Ready-money Trade near Birmingham, returning over £1,000; profits net £450, trade increasing every year; good house; rent £60; price £700, or valuation of stock and fixtures.

An Old established good-class Business in best part of prosperous town (Yorkshire); large shop, good house and garden; lease; rent £55; returns £1,300 to £1,400; price, valuation of stock and fixtures only, about £700 to £800.

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VALUER, LEICESTER,

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GENUINE Light Retail and Dispensing Business in suburb of large town in Lancashire; returns £700; handsome shop; good house; satisfactory reasons for disposal. For full particulars apply, "Antipyrin," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

HANDSOMELY fitted corner Chemist's Shop, in main road, London, N.; carried on by Assistant last three years; rent let off (two bedrooms and sitting-room left); price £400; suitable for a gentleman starting in life. Address, "Chemists," Mr. Smallshaw, 10 Stamford Hill, London, N. Also Small Business; price £80, value stock and fittings to take out.

DRUGGISTS Business for disposal; suit Chemist, good Prescriber, Dentist; fit out yachts, medicine chests; seaside and town combined; season just commencing; Proprietor, Veterinary Surgeon, cannot attend; would co-operate with purchaser; valuation or offer; rent can be covered by letting. "Veterinary," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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TO HOMŒOPATHIC CHEMISTS.—Advertiser will be glad to communicate with a Homœopathic Chemist willing to purchase a new business in Edinburgh, the proprietor of which has just died; the stock and fittings cost about £280; the shop, of which there is a two years' lease to run, is situated in one of the principal thoroughfares, and there is only one other business of the kind in the city; there is a good opening for an intelligent and pushing man; easy terms could be arranged. Address, "Chemist," Messrs. Robertson & Scott, Hanover Street, Edinburgh.

TO CHEMISTS wishing to establish themselves in a promising West-End Drug Store, substantially and neatly fitted, to which there is attached a considerable trade in Medical and Veterinary Specialities of over twenty years' standing; the General Drug Business, having only been recently added, shows small returns at present, but under energetic management and publicity will command a splendid income; the premises are most spacious, yet lightly rented, and are free of taxes; a thoroughly competent, gentlemanly man with capital must make a fortune; equitable terms will be made for a ready sale in consequence of illness. Apply, by letter, to A. A. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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GENUINE unopposed Country Retail Drug Business; returns £800; can be considerably increased; certain income of £300 per annum to an energetic person; price £500; selling through ill-health. Address, H., care of Mrs. Spencer, 3 Carlton Terrace, Taunton.

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A SMALL genuine Retail Business; Midland counties preferred; would accept situation with view to succession. Lowest terms and full particulars, to "W. X. W.," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A LIGHT or Partly Mixed Retail, returning from £900 to £1,500; situation immaterial if business is good; strict confidence observed. Address, "Bona Fides," Messrs. Allen & Hanburys, Plough Court, Lombard Street, London, E.C. (to whom advertiser is known).

WANTED, to purchase a Proprietary Medicine, or the business of a manufacturer of one of the following lines:—Coated Pills, Compressed Tablets, Menthol Cones, Packet Dyes, Lozenges, Plasters, or Homœopathic Medicines; a liberal bonus is offered for information leading to business. 274/3, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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A PPRENTICE wanted at once; comfortable home; moderate premium. Apply, R. H. Trewicks, Chemist, Pembroke.

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SALE BY TENDER.—Splendid Mahogany Counters and Door, Window Fittings, Stock, Tincture, Lozenge, and Powder Bottles, Ointment and Ext. Jars, Mahogany Drawers, Shelves, and Glass Cases; may be seen any time. Apply, T. Parker, Chemist, York.

TO CHEMISTS AND DRUGGISTS.
GENUINE SALE.

TENDERS are invited for the Stock-in-Trade, Fixtures, and Fittings of the old-established Chemist and Druggist's Business carried on by Mr. Jacob Wyke at 51 Cross Street, Abergavenny. Same may be viewed at any time by appointment, and inventory seen on the premises. The highest tender will not necessarily be accepted. Tenders must be sent not later than May 20, 1889, to Mr. Jacob Wyke, 51 Cross Street, Abergavenny.

SITUATIONS OPEN.

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WANTED, a qualified Assistant to manage a general retail business for 3 months. G. W. Saville, 161 Kirkgate, Wakefield.

WANTED, immediately, an Assistant to Manage Branch (outdoors); state experience and salary required. H. S. MoHugh, Chemist, Castleford.

DRUG TRADE.—Traveller wanted, with connection in London and suburbs. A. M., Messrs. Street & Co., 30 Cornhill, E.C.

TOWN Traveller required for the Eastern division by a Druggists' Sundries house. Reply, R. A., care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AN Outdoor Assistant, qualified, wanted. Answer must state age, height, testimonials, experience, and salary required to Magor, 126 Corporation Street, Birmingham.

TRAVELLERS calling on Grocers, Oil and Colourmen, and Chemists (town and country), who can take an extra Commission, should apply, B. W. F., Observer Office, Lancaster.

WANTED, immediately, Dispenser and Bookkeeper; outdoors; ample time for reading; salary £60. Apply, giving references, to Dr. F. Birtwhistle, Priest Gate, Barton-on-Humber.

DRUG TRADE.—Wanted, a young man in a Wholesale Druggist's as Under Warehouseman; only those used to the trade; state wages. C. T., care of Messrs. Street & Co., 30 Cornhill, E.C.

WANTED, a duly qualified Dispenser, for the Leeds Public Dispensary; salary at commencement £80; applications with testimonials to be sent at once to me. J. Swale, Secretary.

A COMPETENT Dispenser, not under 23; accustomed to first-class business; indoors. State particulars of experience, height, and salary required, to Giles, Schacht & Co., Clifton, Bristol.

TRAVELLER wanted in June. Apply (by letter in the first instance), stating what ground applicant has hitherto taken, age, salary required, &c., to H. A. Thompson & Son, 22 Worship Street, London, E.C.

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ASSISTANT, in high-class Dispensing and good Retail Business; must be willing to make himself generally useful; a personal interview preferred. Apply, with usual particulars and photograph, to Mr. Gregory, Wellington, Somerset.

WANTED, Manager for Chemist's business (Midlands); must be qualified, with first-class references, and to work the business on the profits. Apply, by letter only, to "Costic," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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WANTED, an Assistant for a short time, now or later on, to put up Stock, &c.; or would arrange with one requiring time for study, &c.; comfortable situation; in or outdoors. Address, "Surrey," Messrs. Sanger, 489 Oxford Street, London.

WANTED, good Junior for Dispensing Department (three others kept); hours, 8 to 8, Saturdays to 10; outdoors; no Sunday trade. Apply, with usual particulars and enclose photo, Henry Hodder & Co. (Lanc.), 8 to 11 Broad Street, Bristol.

WANTED, for the Australian Colonies, a man who thoroughly understands Sugar-coating Pills; liberal salary and free passage. Apply, giving full details as to qualification, &c., to Z, care of Editor of this Journal, 42 Cannon Street, London, E.C.

MANAGER (Chemical).—A good Chemist and thorough man of business wanted as Manager of Works; knowledge of Soap-making desirable. State full particulars, experience, and salary expected, "M. O., care of Messrs. Street & Co., 30 Cornhill, E.C.

TO DISPENSERS.—Wanted, at once, a qualified Dispenser (outdoors); must be under 35 years of age; no Sunday work. Apply, by letter, stating age, experience, and salary required, to W. W., Civil Service Supply Association (Limited), 136 Queen Victoria Street, E.C.

CHEMIST'S Assistant for the Straits Settlements; must have passed the Minor examination, and have had experience in General Retail and Dispensing Business; age about 25; good references required. For particulars apply to A. Durant & Co., 89 Gresham Street, London.

CHEMIST'S Assistant wanted, for the Transvaal; Minor qualification absolutely necessary; aged about 25; must have had first-class London experience; second-class passage paid out. Apply, with full particulars of previous engagements, to W. J. B., 16 Coleman Street.

FOR a good-class Mixed Country business, a thoroughly reliable Assistant, about 25 or 30; must be quick, obliging, of steady habits, and good Tooth Extractor (one who has passed his Minor preferred); letters not answered in 3 days declined. Apply, with full particulars, to C. Woods, Harleston, Norfolk.

MAY 18.—Junior Assistant (sleep out room found), in a light retail and dispensing business; age about 21; able to dispense, prescribe, and left in charge occasionally. Apply, stating age, salary, height, with reference (last employer), enclosing photo and stamped envelope, to John Lea, Folkestone.

WANTED, an Improver, outdoors, in Retail and Dispensing Business near London; hours 9 to 9; no Sunday duty as a rule; small salary given; state age, height, experience, and salary required; must have good references; say how long with last employer. Apply, A. Saunders, Oxford Road, Walthamstow, Essex.

WANTED, competent trustworthy Assistant (indoors) in small Light Retail, Dispensing, and Prescribing business; of good experience; not under 25; abstainer and able to Extract preferred; a businesslike man of good moral character would find comfortable berth. Apply, with photo and full particulars of experience, age, salary, height, &c., Coles, Bournemouth.

ASSISTANT; abstainer only; indoors; about Monday, May 13; aged about 21; hours 8 till 10 and alternate Sunday evenings; no time can be spared except the usual evening weekly. Apply personally, or enclosing carte, to Mr. Taplin, 91 Hampstead Road, London, N.W. Applicants under the age or not able to come at the time will not be answered. Only one kept.

WANTED, a fully qualified and experienced Senior Assistant, indoors, to associate himself with the principal in the management of an important country business; age 30 to 40; must be of active and energetic habits; liberal salary to a suitable man; references unexceptionable. Apply, with fullest particulars, to "Senex," Messrs. Barclay & Sons, Farringdon Street, London.

WANTED, immediately, a qualified Outdoor Assistant to manage an old-established country business; must be gentlemanly and character bear the strictest investigation; a knowledge of the Welsh language indispensable; one seeking a permanency required. Apply, stating age, experience, salary required, and photo (if convenient), to Walter J. Vaughan, Solicitor, Fishguard.

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1s. for twelve words; 6d. for every six words beyond.

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ASSISTANT; aged 22; good references. "Tiphthol," 24 King Street, Cambridge.

JUNIOR (19); 4 years' experience; tall; passed Preliminary. "Nemo," Wath, Ripon.

JUNIOR; town or suburbs preferred; aged 22; Minor. W., Lawn House, Poplar.

AS Assistant, or Manager of branch; aged 23. H. Brooke, High Street, Doncaster.

AS Manager or Assistant; qualified; good experience and references. J. E. Enderby, Spalding.

JUNIOR, aged 22; 4½ years' experience; dispenser. "Chemist," 298 Battersea Park Road, S.W.

IMPROVER; 4 years' experience. O. T., 29 Queen Margaret's Grove, Mildmay Park, N.

JUNIOR, in or near London, with time for study; good reference. W. Argles, Aylesbury.

AS Evening Assistant; first-class Dispenser; highest references. S., 9 Gracechurch Street.

JUNIOR or Improver; passed Preliminary; aged 20. "Alpha," Davies, Chemist, March, Cambs.

MANAGER or Senior; good Prescriber; experienced; qualified. J. M., 2 Pixholme Grove, Dorking.

PART-TIME engagement with Chemist or Surgeon, 3 days a week from 4.30. H., 98 Thorpedale Road, N.

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DISPENSER, Chemist, Surgeon, or Public Institution; good testimonials. E. R., 35 Bond Street, Swansea.

MANAGER or Locum-Tenens; qualified; West-End experience; disengaged. "Statim," 13 Elgin Crescent, W.

ASSISTANT; Mixed Country Business. S. E., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER (Temporary); moderate terms; Ph. Chemist; long experience. X, 39 Powis Square, Bayswater, W.

TEMPORARY; aged 25; Apothecaries' Hall qualification; disengaged. "Chemicus," 52 Harrow Road, Paddington.

WHOLESALE.—Wet Counter, or Traveller; over 8 years' experience; highest references. R. B., 182 Southwark Park Road.

JUNIOR, in London; time for study; small salary; aged 21; good references; abstainer. Morrow, 124 City Road, Bristol.

JUNIOR or Surgeon's Dispenser; 8 years' experience; abstainer; good references. Chapman, 6 Malvern Hill Road, Birmingham.

AS Assistant; good prescriber; London and country experience; aged 25; disengaged. W. Evans, 67 Saxon Street, Liverpool.

ASSISTANT or Manage Branch; aged 31; single; unqualified; indoors and permanency preferred. Lumbus, Aston, Nantwich.

ASSISTANT (24); well up in smart Counter work and Dispensing; slight salary, &c. A. S., Galloway, 46 Earl Grey Street, Edinburgh.

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ASSISTANT; good experience; aged 23; highest references; disengaged. "Statim," 32 Rochester Street, Queen's Park, Manchester.

ASSISTANT or Branch Manager; aged 27; good references and experience. "Statim," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MR. S. SMITH, 7 Upper Montague Street, Bristol, takes Confidential Management during absence or illness, or Branch; varied experience; distance no object.

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LOCUM-TENENS; experience; abstainer; good references; engaging for approaching season. "Veritas," Mr. Titmas, Chemist, Rosamond Street West, Manchester.

ASSISTANT, or Branch Manager; married; London or Southampton preferred; aged 25; qualified; 11 years' experience; excellent references. H., "The Nook," Totton.

TO Wholesale Houses.—Position of trust wanted by experienced man; Traveller or Manager; first-class references. X. Y., Messrs. Shannon & Kemp, 22 Lord Street, Liverpool.

F. R. FLINTAN, from Corbyn & Co., would like to meet with a firm who require a Junior Assistant in a good-class Dispensing business; London preferred. Apply, Flintan, Chemist, Chertsey.

AS Assistant, in or near London, with time for study preferred; London and country experience; good prescriber, dispenser, and extractor; aged 28; height 5 feet 8 inches. "Rhei," 53 Church Street, Whitehaven.

WELL-EDUCATED young man, 21, desires situation with chemist and druggist to learn business; would serve for considerable period without salary or maintenance; satisfactory references. Hyne, 111 Mersey Road, Widnes.

TO Manufacturers, &c.—Influential experienced young man, leading Dring and Sundries house, Dublin, open to represent above in Ireland; direct reference; security. "Agent," care of Mr. West, 13 College Green, Dublin.

AS Assistant; good Counterman, Dispenser, Prescriber, and Extractor; capable of management; 12 years' experience; 6 years' cutting system; aged 27; excellent references. Franks, 23 Brompton Road, Knightsbridge, S.W.

A PHARMACEUTICAL CHEMIST, 40 years of age, married, good all-round experience in best London, W., and provincial houses, seeks an appointment in wholesale or retail; disengaged first week June. "Ph.O.," care of Messrs. Horner & Sons, Mitre Square, Aldgate, E.C.

A GERMAN Druggist, speaking French fluently, and experienced in German and French dispensing, the Drug trade, correspondence, &c., requires a situation in England in July; aged 22½; excellent references. Address, G. Knrze, Elève en pharmacie, Andincourt (Donbs), France.

TO Manufacturers and Wholesale Houses.—Experienced Traveller, just resigning agency for a speciality, is desirous of representing a good firm in sundries, &c.; calling on chemists, druggists, grocers, and stores, London and suburbs. Address, J. W. K., 28 Windsor Road, Holloway, N.

IMPROVER.—A provincial Chemist wishes to place his son, aged 19, in good-class dispensing business; he is pretty well up in the general routine of a mixed trade; height about 5 feet 8 inches; very steady, &c. H., care of Messrs. W. Edwards & Son, 157 Queen Victoria Street, London, E.C.

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TRIPOLI, pink, white, red, yellow, grey, 9s., 12s. per 2 cwt.; trade magnesia, 10s., 11s. per 2 cwt.; asbestos powder, 8s. per 2 cwt.; talc powder, polishing clay and polishing magnesia marl, polishing chalk, emery and pumice-stone powder. 9 12. Please address, Bruck's Gruben Comtoir, Berlin, S.O., Germany.

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WANTED, to purchase a Proprietary Medicine or Infants' Food which has been before the public for some time. Address, with full particulars, "Purchaser," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

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Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

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A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each

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Make a Delicious and Nutritious Jelly. In ½- and 1-pint boxes, 3d. and 6d. each.

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THE GIANT 1d. BOTTLE OF SAUCE.

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OR READING SAUCE.

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1d. " " ½ gross boxes	6/8	" 8/
½-Bottles (flat or round), reputed ½-pint	18/	" 24/
½-Bottles (flat or round), reputed pint	28/	" 32/
½-pint Imperial Round Stoppered Bottles	30/	" 36/
1-pint Imperial	50/	" 80/
12½-gallon Casks (casks free)..	each 20/	" 32/

ROYAL CAFÉ SAUCE.

In 8-oz. square-stoppered bottles, 48/ per gross.

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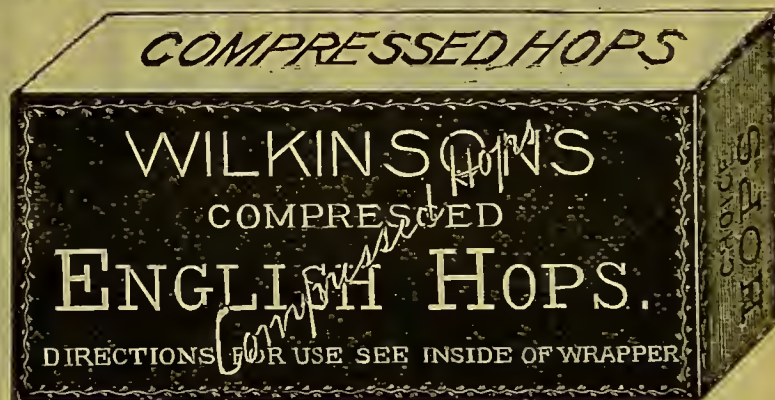
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To the CHEMISTS & DRUGGISTS of the UNITED KINGDOM.

GENTLEMEN,—We beg respectfully to inform you that we have brought out a **LIEBIG'S EXTRACT OF MEAT AND MALT WINE** made with a **HIGH-CLASS BRITISH WINE**, which can be sold with a Sweets Licence, which costs only £1 5s., and can be obtained in **SCOTLAND** and **IRELAND** without a Magistrates' Certificate; in England this Certificate is required, but as you will see by the following Extract from a letter received January 17, 1889, from the Inland Revenue Authorities, it is not necessary to wait till the Licensing Sessions to obtain the Licence, but that the Board will, on production of a recommendation of two of the Licensing Magistrates in the district where the Trader resides, be prepared to grant permission for the immediate sale of the Wine.

EXTRACT FROM LETTER:

"I am directed by the Board of Inland Revenue to acknowledge the receipt of your letter of 11th inst., and to state, in reply, that in cases where a person is desirous of selling Wine not to be consumed on the premises, although the Magistrates' Certificate has not been obtained, the Board would be prepared to consider favourably an application from the Trader to be allowed to sell, pending the next Meeting of the Licensing Magistrates, upon his depositing with the Collector the amount of Licence due, and producing a recommendation in writing from two of the Licensing Magistrates."

We offer to pay the entire cost of the Licence where it is not held if an order is sent us for 4 dozen of the 2/9 size, or 2 dozen 2/9 and 1 dozen 4/6; this we will forward carriage paid to any Railway Station in Great Britain.

Over Two Thousand Testimonials have been received from Medical Men, and the Wine has now an immense sale throughout the United Kingdom.

Soliciting your commands, we are, dear Sirs, Yours most obediently,

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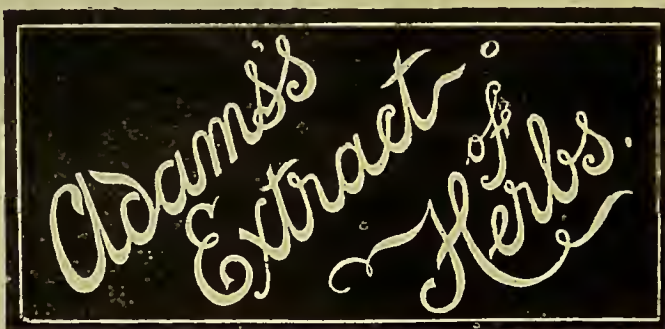
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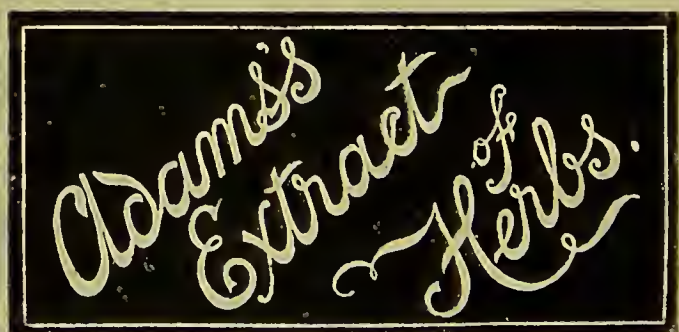
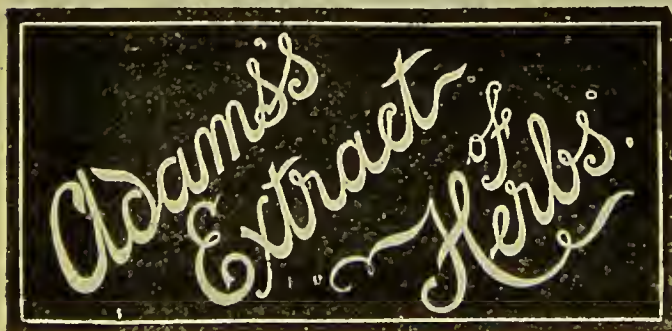
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The Proprietor is induced to make this offer that the preparation may become more widely known in parts where it has not yet been introduced, his experience showing that where once known and used a large demand has been created and maintained. Chemists who are alive to the requirements of the times will see that it is greatly to their advantage to keep this well-known Extract, rather than be at the trouble and expense of putting up a preparation themselves. Customers' names printed on the handbills. Specially favourable terms for larger quantities may be obtained from the Proprietor,

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Copy of Analysis by

Sir Charles A. Cameron,

Ex-President and Professor of Hygiene Chemistry, Royal College of Surgeons, Ireland; President of the Public Health Medical Society; Vice-President of the Institute of Chemistry of Great Britain; and Chief Medical Officer of Health, Dublin.

ROYAL COLLEGE OF SURGEONS,
STEPHEN'S GREEN, DUBLIN,
11th September, 1888.

I have carefully examined a specimen of "Pearson's Liebig's Beef Wine," purchased by myself in a retail shop in Dublin. It consists of Wine, Malt Extract, and Beef Juice, and the study of its composition leads me to believe that the expressed juice of five pounds of Beef is really contained in a quart of this Beef Wine. The ash is rich in soluble phosphates. Altogether it is a very valuable food. It is, unlike most preparations of the kind, rich in soluble albumen, and, in short, all its ingredients are in the most effective state for digestion and assimilation, and I can strongly recommend it.

(Signed)

CHARLES A. CAMERON.

The "Hospital Gazette of September 1, 1888, says:—

Samples of so-called Beef Wine have from time to time been submitted to our notice, but for the most they have been of a very unsatisfactory character. The Beef Essence contained in them being of infinitesimal proportions, if not entirely absent. "Pearson's Liebig's Beef Wine" was submitted to a scientific test in the presence of our representative and a large number of other Medical men, all of whom were satisfied that the article is what its makers represent it to be.

The "British Medical Journal," August 25, 1888, says:—

Of the many liquid foods submitted to the public, "Pearson's Liebig's Beef Wine" is, to our mind, by far one of the most agreeable to the taste, and should constitute what it claims to be—a most strengthening, invigorating, and stimulating liquid food, capable of rapid assimilation, and useful as a tonic in cases of debility and wasting illness.

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It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).

December 15, 1888.

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Dear Sir,—I am in receipt of the samples of Meat Wine you sent to me. I was so pleased with the results obtained from it that I have obtained a further supply, and have given it a rather extensive trial. I have found it invaluable as a medicine in the treatment of Enteric and Scarlet Fever sufferers from these diseases rapidly improving in strength and weight under its influence. I think the combination a very happy one.

To B. ROBINSON, Esq.

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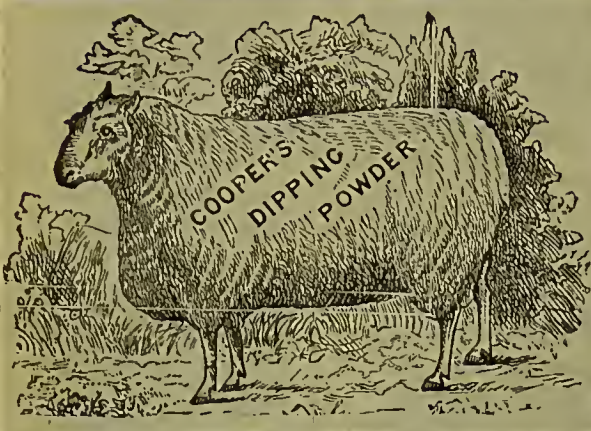
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12 "	10/6	Single Sample
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BY HER MAJESTY'S ROYAL LETTERS PATENT.



1864.

BREEDING.



It is an undisputed fact that the English horses of to-day are not what they were sixty or seventy years ago. Of the many causes which have led to such a deplorable result I do not propose to enter upon, further than to say that the chief cause appears to have been carelessness in selecting sires and animals to breed from.

It seems strange that farmers, who have for years bestowed the most anxious care on the breeding of sheep

and cattle, and who by their skill in the selection of sires have brought their flocks and herds to the very acme of perfection, should have been so indifferent as to the breeding of horses. Yet such is the fact. In many instances the small farmers are really the breeders, keeping a mare to "do their work and rear a colt most years;" the colt being sold to a large farmer or grazier in the autumn. Hence it is that a small price is paid for a stallion's services; thus only securing a second or third rate sire.

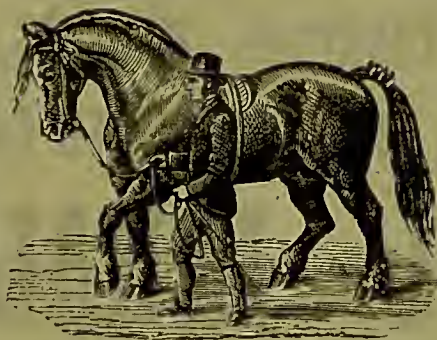
In difficult cases of foaling it is always much better to obtain the aid of a qualified practitioner, than resorting to some of the plans adopted in country places of calling in the village leech, or by violent means attempting to relieve the mare, which often results in the loss of her foal or herself, and too often of both.

After foaling, a sheltered pasture should be selected for the mare and her foal, and good nourishing food given. Nothing will do dam and foal so much good as "Rumney's Food," which, being farinaceous and prepared by Mr. P. J. Rumney's patent process of cooking, is highly nutritious, is easy of digestion, and therefore far preferable to the usual food, especially at this time, when good feeding and good nursing are of the most vital importance.

A few words about Rumney's Food. Mr. P. J. Rumney, the proprietor of this food, is also the proprietor of Dr. Ridge's Food (for Infants, Children, and Invalids), which has gained a world-wide distinction. It is admitted by all to be possessed of the attributes that are claimed for it—viz, it is health-giving, strength-giving, and sustaining to a marvellous degree; therefore it is considered to be an essential requisite in every household in the Kingdom and is used in great quantities all over the civilised world.

But, to return to the subject of Rumney's Food for Horses, it will not be out of place to state here that which is already well known to a large circle of his friends—Mr. Rumney is the proprietor of the "Wonder" four horse stage-coach, which runs daily nearly all the year round between London and the Abbey town of St. Albans, and is a thorough judge and admirer of horses, and a whip of the very first order.

It was owing to his fondness for horseflesh that he turned his attention to the production of a food for horses which should be cheap, nutritious, easy of digestion, &c.; in fact, taking his cue from the process of preparing Dr. Ridge's Food, he aimed at producing for horses a food that should



excel all other horse food in such a manner as Dr. Ridge's Food is universally admitted to excel all other "foods" that profess to be good for Infants and Invalids.

Mr. Rumney at first merely intended to use it in his own establishment, and for his own horses, keeping as he does about thirty all the year round in constant work. He has now been in the habit of using it in his stables for over twenty years, during which time, to quote his own words, "he rarely has a horse unwell."

Finding what a success the Food was in his own stables, he was induced to bring it before the public, and it is gratifying to know that it is meeting with a steadily increasing sale, the general cry of horse-masters and owners of studs being, "I only wish I had tried it before." I would advise those who are sceptical as to its beneficial effects to make an inspection of the stud from which the teams of the "Wonder Coach" are drawn, and they will be at once convinced that something more than good stable management and feeding must have contributed to the most exceptional bloom of condition that is so apparent in this fine stud. Nor is it in looks only that its good effects are felt; horses taking it regularly are more healthy, robust, have greater powers of endurance, and do their work with less apparent exertion than horses fed in the ordinary way.

ITS MANUFACTURE.

This is most carefully attended to, and is carried out under Mr. Rumney's personal supervision by his patent process of cooking, aided by the most finished and expensive machinery that science can devise. The Food is eight hours in process of cooking, during which time all that is dangerous and indigestible in that most nutritious of all corn, viz, wheat, is eliminated and in no other form is it safe to give wheat to horses. The high authority of "Nimrod" as to the value of wheat has often been quoted.

IN THE HUNTING-FIELD.

How many hunting men have experienced, after a long and hard run great difficulty in some remote village, or at an out-of-the-way roadside inn, in getting oatmeal and water, so necessary for their jaded horses, who have generally a long and weary journey home. How often the three cornered ostler replies, "No, sir, we're out on't; but I'll fetch some from the shop," which process takes a full half-hour, after which fifteen minutes are consumed in getting a pail, and ten more in waiting for some warm water. To hunting men, then, Rumney's Food should be considered an especial boon; a 2d. packet can be carried in a sandwich case under the sandwiches, and like the boy who "washed his face once a week whether it required it or not," the food will be there whether you want it or not, and will not be cumbersome or in the way, but ready for use in any case, either in a long or short day.

ON THE ROAD

Compared with former years, few people now drive long distances; still there are some who find it necessary to adhere to this mode of travelling, and some there are who do so for pleasure. To all who from whatever cause "stick to the road," it will be almost unnecessary to say anything in recommending this food to their notice, the remarks in the preceding note to hunting men applying in a like manner to those who find it necessary to call at roadside inns to refresh their steeds. If you have a supply of Rumney's Food in your conveyance it is ready at any time you may require it, and you will not be harassed by the delay occasioned by sending a mile or two to the nearest shop, and then perhaps get something so musty and foul that your horse turns his delicate nose away from it, but which, having been mixed, must be paid for, although no benefit has been derived from it.—*Civil Service Gazette.*



N.B.—Please read above carefully, as it may not appear again this year.

LONDON
ADDRESS }

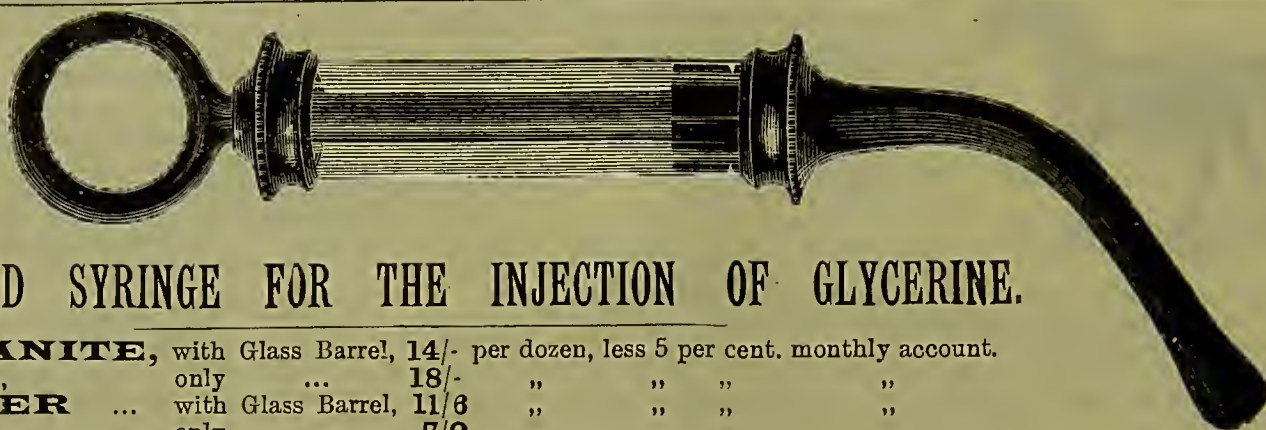
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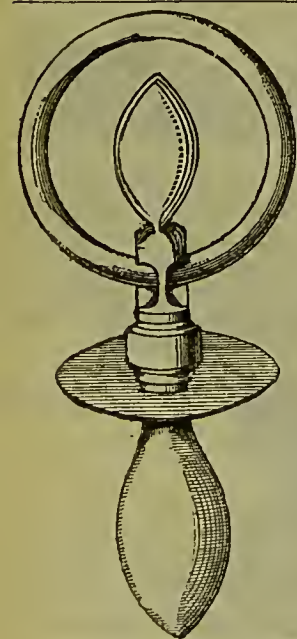
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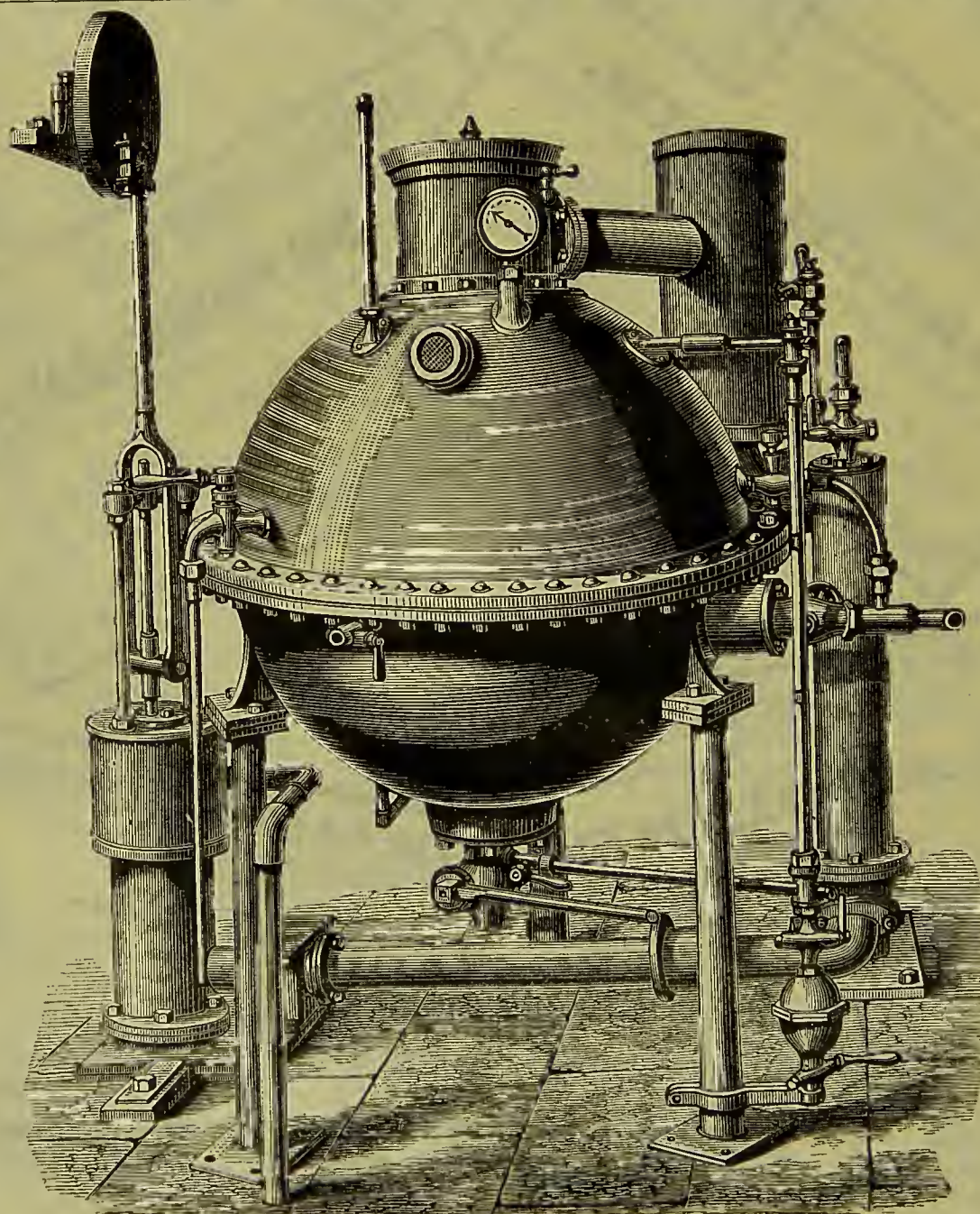
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The Pharmaceutical Society of New South Wales.

The Midland Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South Africa Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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PUBLISHERS' NOTICE.—THE CHEMIST AND DRUGGIST of May 18 will have a large extra circulation throughout the United States and Canada. All wholesale druggists on the North American continent, as far as we can find them, will get a copy, and the principal retail chemists in the States and in the Dominion will also be addressed. In view of the probable large number of Americans visiting Europe this year, the opportunity of advertising in that number should not be missed. It may be added that the same number will be of special interest to British readers, as it will contain our usual full reports of the annual pharmaceutical meetings of that week.

A MEMBER of our Melbourne staff is again with us at 42 Cannon Street, and will be glad to discuss Australian business with any firms who may think his special knowledge might be useful to them.

POST-CARD COMPETITION.

WE offer the following prizes in reference to the forthcoming election for the Pharmaceutical Council:—

ONE GUINEA for the nearest estimate of the first five names as they will appear on the poll; and

ONE GUINEA for the nearest estimate of the absolutely last five names, as they will appear on the poll; that is to say, the last five, inclusive of the unsuccessful candidates.

Lists sent in competition must be on post-cards; a separate post-card must be sent for each list, though any eligible competitor may send in and try for both prizes, but no one may send in more than one list for either competition. Only subscribers and their employes are eligible.

Post-cards for this competition will not be eligible unless received not later than Tuesday, May 14.

The following are the candidates named in alphabetical order:—

Abraham, A. C., Liverpool	Leigh, Marshall, Brighton
Allen, C. B., London, N.W.	Martin, N. H., Newcastle-on-Tyne
Bottle, Alex., Dover	Martindale, W., London, W.
Broad, J. M., London, N.	Newsholme, G. T. W., Sheffield
Butt, E. N., London, W.	Nicol, A., Carlisle
Carteighe, M., London, W.	Schacht, G. F., Clifton
Cross, W. G., Shrewsbury	Southall, Alfred, Birmingham
Greenish, Thomas, London, N.W.	Watt, James, Haddington, N.B.
Hills, Walter, London, W.	

"THE ART OF DISPENSING."

Price 3s. 6d., or by post 3s. 10d. May be ordered along with ordinary goods from the principal wholesale houses, who supply it at the published price, 3s. 6d. A list of the firms who hold stock was published in our issue of March 30.

This book may be obtained in Australia from the offices of *The Chemist and Druggist of Australasia*, Normanby Chambers, Melbourne, and 13 Queen's Chambers, Sydney, price 5s.

Our agent in New York, Mr. Harry V. Dakers, 45 Liberty Street, will supply "The Art of Dispensing" to American pharmacists at \$1.25 per copy, post free.

"The Art of Dispensing" may be obtained from Evans and Sons (Limited), Montreal, at \$1.25 per copy; B. G. Lennon & Co., East London and Port Elizabeth; Lennon & Tebb, Cape Town; and Bertie-Smith & Co., Bombay, at 5s. per copy.

"THE HANDY BOOK OF MEDICINE-STAMP DUTY."

THIS work has been written for us by Mr. E. N. Alpe, of the Solicitors' Department, Inland Revenue Office, Somerset House, who has had a wide experience in and intimate knowledge of the administration of the Acts which regulate the sale of proprietary medicines. The Handy Book is, consequently, of exceptional value to chemists and druggists, more especially in showing how medicines are made liable to stamp-duty by labelling, circulars, and the like. Reviewers have been unanimous in stating that the work is not only complete, but interesting and invaluable. It is as free as possible from legal phraseology, is readable, and is nicely got up. Price 2s. 6d., or by post 2s. 9d. May be obtained through the wholesale houses in the same way as "The Art of Dispensing."

TO AMERICAN MANUFACTURERS.—Our representative, Mr. T. E. Parker, is now on a business visit to the United States and Canada during the next few months. Mr. Parker is now in New York and intends to visit during his tour Philadelphia, Boston, Chicago, Pittsburgh, Baltimore, St. Louis, Cincinnati, Detroit, Toronto, and Montreal. Letters for him may be addressed to Mr. Harry V. Dakers, office of THE CHEMIST AND DRUGGIST, 45 Liberty Street, New York.

Metropolitan Reports.

BAD MEDICINES IN HAMMERSMITH.—The district analyst has reported to the Hammersmith Vestry that certain samples of drugs which he had examined were of inferior quality, and the vestry have agreed that the vendor of one sample of tincture of rhubarb should be prosecuted, and that the vendors of two samples of spirits of nitre, and the vendors of four samples of tincture of quinine should be cautioned.

A MANGANESE TRANSACTION.—In the City of London Court on Wednesday, before Mr. O. B. C. Harrison, the deputy-judge, the case of *Pressland v. Binko* was heard, in which the plaintiff, Mr. William Pressland, Hatchet Court, Little Trinity Lane, Upper Thames Street, E.C., sought to recover the sum of 3*l.* 10*s.* 10*d.* from Mr. H. Binko, of 34 Leadenhall Street, E.C. The question in dispute referred to a parcel of 6 cwt. of manganese at 12*s.* per cwt., which the defendant said was ordered by a man in his employment, but who had no authority to do so. He gave all orders himself. The deputy-judge said that that man must attend. He gave evidence subsequently, after which judgment was entered for the plaintiff.

ALLEGED FRAUD.—At Marylebone Police Court on Saturday, a tall, grey-headed, well-dressed person, giving the name of John Williamson, aged 66, a traveller, of no fixed abode, was brought up on a warrant by Detective-Inspector Morgan, X Division, charged with obtaining from Thomas Cotton 10*l.* with intent to defraud, at 25 Woodfield Place, Paddington. Also 10*l.*, on August 8 last, from Henry Barrow, of Dagmar Street, Windsor. The information on which the warrant was granted was read, and it set forth that in August last year an advertisement appeared in the *Daily Telegraph* for a messenger, which Mr. Cotton replied to. According to the charge Cotton and other persons had paid to Williamson sums of 10*l.* and 15*l.*, professedly on deposit as security, and had then been engaged by Williamson, who described himself as a wholesale chemist. Particulars of several cases were given in evidence, and the prisoner was remanded.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BEDFORD.

THE PUBLIC ANALYST'S CLAIM.—Judge Bagshawe gave judgment at the latter end of last week in the case of *Dr. Voelcker versus the Bedford Corporation*, of which we gave particulars in last issue. His Honour found for the analyst for 19*l.* 19*s.*, deducting from his claim 1*l.* 1*s.* for the certificate of the analysis of the sample of coffee upon which the Corporation were unable to take proceedings, and 1*l.* 1*s.* for the certificate which was left unsigned. Dr. Voelcker was also awarded costs on the 20*l.* scale, and payment was ordered in a month.

BIRMINGHAM.

SCIENCE AND VACCINATION.—Mr. Trowbridge, chemist, West Bromwich, has been fined 5*s.* for neglecting to have his child vaccinated. He said he had conscientious objections. The Act was passed on the supposition that the medical fraternity were agreed, but this notion had been exploded, and science had knocked the bottom out of the superstition of vaccination. The Bench said that perhaps the Commission now appointed to consider the question would put that bottom in again. Disobedience must be followed by a penalty.

THE CRICKET SEASON.—The Chemists' Association has made favourable arrangements with the Langley (Small Heath) Cricket Club to have the use of their cricket ground for practice and matches on Wednesday afternoons. The

ground is conveniently situated, and is not far from the Small Heath tram terminus. It is proposed to play at least eight matches. All pharmacists and those connected with the craft are eligible for election as members. An influential committee has been appointed, with Mr. Thompson chairman and treasurer, and Mr. F. H. Alcock secretary. It is proposed to have a distinctive colour for cap, &c.

COLCHICUM PILLS.—The coroner (Mr. Hawkes) held an inquiry last week into the circumstances attending the death of Samuel Aston, a manufacturer's clerk, of Park Road, Hockley, who died through taking an overdose of pills. The widow stated that the deceased had been a sufferer from neuralgia and headaches for some time. On Friday he complained of his suffering, and she purchased, as was usual, a box of pills from a chemist named Miller, of Hockley. Soon after taking some the deceased became worse and unconscious. Medical aid was sought, but he died in an hour. Dr. Vincent attributed death to fainting produced by the effect of the pills. Mr. Miller explained that each of the pills contained 1 grain of powdered colchicum. Dr. Vincent did not think that such a quantity would have fatal results, so far as poisoning was concerned. A verdict of "Death from natural causes" was returned.

HALIFAX.

THE DENTISTS' ACT.—On April 25, Mr. Arthur L. Jackson, of Aked's Road, Halifax, was summoned for infringement of the Dentists' Act. Mr. Beverley, barrister, prosecuted, and Mr. Waugh, barrister, defended. The case was brought on the information of Mr. Willis, a Halifax surgeon-dentist, and evidence was given by three dentists and others with a view of showing that by his signs and circulars the defendant had led the public to believe he was fully qualified. A man who had had his teeth examined by the defendant was also called, and the receipt given to him on payment of the fee was produced. Mr. Waugh argued that the law was only meant to operate against dentists who misled the patient as to their qualifications, which was not done in this case. The Bench considered the case proved, however, and fined the defendant 5*l.*, the costs being 6*s.* 6*d.* Notice was given of appeal.

LEEK.

HIGH-PRICED TEA.—At the Police Court on April 25, Abraham Tunnicliffe, a well-to-do farmer of the neighbourhood, was charged with stealing a $\frac{1}{4}$ -lb packet of tea, value 6*d.*, from the shop of William Henry Hartley, druggist, of Leek. Mr. Aylmer defended. The evidence of the prosecutor was to the effect that he had suspected the prisoner of stealing tea from his shop, and he therefore watched him. On Wednesday the prisoner came into his shop, and, after being served with some tartaric acid, was seen to take a packet of tea from the counter and place it in his basket. Witness went round the counter, seized the prisoner, and charged him with the theft. He denied that he had any tea, and witness took the lid off the basket and showed him the packet. Prisoner then offered to pay for the tea, or any other sum to "square" the matter, but witness sent for a constable and gave him into custody. When searched, the prisoner had 18*l.* odd in his purse. For the defence Mr. Aylmer submitted that the defendant was a large farmer, and possessed invested capital to a large amount, and therefore would be unlikely to risk his liberty and a hitherto unblemished reputation for a miserable sixpennyworth of tea. He asked them to believe that the prisoner intended to pay for the packet, and that the irregular manner in which he had become possessed of it was due rather to drink than felonious intent. The Bench inflicted a fine of 15*l.* and costs.

LIVERPOOL.

LOCAL SECRETARY.—Some regret is expressed that Dr. Symes will no longer continue to hold the office of local secretary of the Pharmaceutical Society. He says "that the proper performance of the duties in a large and important centre like Liverpool involves the expenditure of more time and attention than he is at present able to devote to them. He would like to see the Society more popular, its influence

greater, and its members increased; but to attain these results a broader and more sympathetic policy must be adopted by the governing body. He hopes still to continue his interest in matters concerning the trade and pharmacy generally. Liverpool has never been behind in supporting the Council in any policy which has been good and wise, or in opposing it when it has been otherwise. He will be fully prepared to accept his share of duty and responsibility in these respects."

NEW SECRETARY.—Mr. Richard Parkinson has been generally mentioned as a likely and suitable man for the vacancy. He is an old member of the Pharmaceutical Society, much respected by his fellow-members; knows the history of every chemist's shop in Liverpool and where to "spot" those which are being carried on illegally. He has for some years held the office of deputy-superintendent of the Preliminary examinations, and, what is more, he is able and willing to give the necessary time to the work.

RAILWAY RATES.—The committee appointed by the Chemists' Association at its special meeting to deal with the question of the proposed increase in railway rates has had the matter under consideration, and at a long sitting formulated some half-dozen objections, which, when put in form, are to be presented direct to the Board of Trade.

LIVERPOOL CHEMISTS' ASSOCIATION.—The fifth general meeting of the fortieth session was held at the Royal Institution, Colquitt Street, on Thursday, April 25, Mr. A. H. Samuel, President, in the chair. There was but a small attendance. Mr. A. C. Abraham further explained, with regard to his statement that "only passenger-ships for the North Atlantic were required by the Board of Trade to be supplied with gelatine-coated pills," that there were four schedules, one for North Atlantic passenger-steamers, one for other passenger-vessels, one for emigrant-ships, and a fourth for merchant-ships. Only the two former had been recently revised, and Mr. Conroy's statement was correct that for both these gelatine-coated pills were demanded; but he believed for the two latter there was no such requirement, therefore his statement was correct also.

Dr. Symes scarcely saw the matter so; he thought, however, it was not so much a matter as to who was right or wrong, as it was that chemists in a port like Liverpool should be quite certain as to what the requirements of the Board of Trade really were; as he understood the regulation, it applied to all passenger-ships leaving Great Britain, whatever their destination.

The President then called on Mr. Williams to read his paper on "The S. Gilchrist-Thomas Phosphate." In complying Mr. Williams gave a short biographical sketch of the inventor, and described the invention or discovery of the process by which almost any iron could be converted into steel, whereas previously about seven-eighths of the iron ore in Great Britain was quite useless for that purpose, on account of the phosphorus which it contained, and which was not removed by the ordinary Bessemer treatment. At first the converter was lined with bricks of silica, but the results were not altogether satisfactory; but now the lining consists of a mixture of lime and magnesia, a further quantity of lime being added during the operation. This removed all but a trace of phosphorus, a scum rising with the uncombined lime to the surface. This scum when ground to a fine powder constituted the article under notice, and was a valuable manure. An analysis showed that it contained about 40 per cent. phosphate of calcium, 30 per cent. free lime, and 8 to 9 per cent. sulphate of iron, with some other less important substances. Mr. Williams referred to experiments conducted and published by Mr. Griffiths on the use of sulphate of iron as a manure, and said his first opinion was that its effect was prejudicial to vegetable growth; subsequently, however, he found that it was not so when used alone, but when used with farmyard manure sulphuretted hydrogen was evolved, and resulted in serious injury to the crop. It was evident, therefore, that when properly used the presence of sulphate of iron in this manure, which at first was considered undesirable, was not really so, and it may have some value along with the other constituents which were of undoubted good.

The President said he had listened with much pleasure to the paper. He would move a vote of thanks to the author for the trouble he had taken in bringing a large number of

specimens there, and for the valuable information he had given concerning them.

The motion was seconded by Mr. A. C. Abraham, who had seen the process of manufacturing steel by the Gilchrist-Thomas process in operation when first introduced. As described by Mr. Williams, however, it appeared not to differ from the Bessemer process. He thought, too, that the composition of the slag as described on the board could scarcely be exact. Dr. Symes supported the vote of thanks. He thought that the question of agricultural manures was an important one to chemists. It seemed to him that Mr. Griffiths's experiments on the use of sulphate of iron were insufficient to furnish him with satisfactory data for the conclusions to which he arrived. To record the result of treating three cabbages in three different ways seemed to him quite useless, especially as he had not used the iron alone. What would they say to a medical man who theorised on the effects of a new remedy after treating three patients therewith, and that in combination with other ingredients? Some time ago he had his own garden dressed with sulphate of iron, and now that had got washed in by the rain he was having a dressing of farmyard manure put on. That seemed to him a rational way of using it, and he would be pleased to report to the association the result at a future date. Mr. Barret, as coming from "the Midlands," was, of course, interested in iron, and he could say the process described had been of considerable value there, where previously the ore could not be used for making steel. He was also interested in the manure, and asked several questions concerning it. Mr. Ward pointed out that there was considerably more lime in the formula than was required to saturate the phosphoric acid. Mr. Williams, in replying, said that the lining of the converter with magnesia and lime, and the lime added during the operation, made the important difference between this and the Bessemer process. It was important that lime should be added in excess for carrying out the process effectually. He quite agreed with the remarks as to Mr. Griffiths's experiments—they were unsatisfactory in both respects named.

The vote of thanks was carried unanimously. The President said this would be the last general meeting until October.

MANCHESTER.

LEWIS has just issued a fresh list of prices of drugs and druggists' sundries and patent medicines. The list seems a fairly exhaustive one, but lest anything should have been omitted the public are asked "kindly to remember that should any articles be required which are not named, Lewis will immediately procure the articles, and supply them at the same low prices." The public are further informed that although the prices are much lower than those supplied by the druggists, "the quality of Lewis's drugs and druggists' sundries are" (*sic*) "of the very best," and the patent medicines are guaranteed genuine.

OLDHAM.

PAINFUL DEATH FROM POISONING.—Dr. Thomson, the borough coroner, held an inquest here last week regarding the death of Elizabeth E. Thacker, a child of six years, the daughter of a bricklayer's labourer. From the evidence it appeared that deceased while playing in an empty house had picked up a bottle containing a clear liquid, and although warned by a companion that it contained poison, she drank some of the contents. She suffered fearfully throughout the night, and in spite of medical aid died in the infirmary next day. The post-mortem examination made by Dr. Hodgson revealed extensive corrosion of the mucous membrane of the mouth, gullet, and stomach, which the doctor believed to be due to acid solution of nitrate of mercury. The jury returned a verdict accordingly.

PENRITH.

COD-LIVER OIL IS "AN EXPENSIVE MEDICINE." At a recent meeting of the board of guardians of this town the clerk said there was a question before the board whether Dr. Dalston, as medical officer, was bound to supply cod-liver oil. He produced the agreement, and there being no exception he

was bound to supply it. Some discussion ensued, and the clerk read from the Local Government Board orders the following note:—"The supply of an expensive medicine, such as cod-liver oil, may be made the subject of a special arrangement with the medical officer." In answer to the chairman, the clerk said the salary was 20*l.* per year.

ROSS (HEREFORDSHIRE).

THE POPULAR CHEMIST.—At the inquest held at Newbridge last week respecting the circumstances attending the death of Captain the Hon. Walter Hylton-Jolliffe, R.N., who was found dead in his room at the Newbridge Hotel, having been killed by the apparently accidental discharge of a revolver, evidence was given by his son, Mr. Montagu Jolliffe, who, while stating that his father was sometimes depressed, though he was very cheerful the night before his death, added, "He had heart disease and liver complaint. The chemist whom he used to go to at Ross said he did not think he would live long—at least, so he told my uncle. . . . He had been to the chemist, and he had given him the medicine. He went to the chemist at Ross because most of the gentry about Ross preferred the chemist to the doctor there."

SHEFFIELD.

CHANGE OF BUSINESS.—The partnership which has existed for some years between Messrs. G. A. Cubley and Job Preston, chemists and druggists and chemical apparatus dealers, has been dissolved. Mr. Cubley is retiring from the business, which will in the future be carried on by Mr. Preston alone.

BOTANY LECTURES.—The usual course at Firth College was commenced on May 1 under Professor Denny, and in the evening of the same day arrangements were made for a number of botanical excursions during the summer. The latter form a new feature, and it is expected will be much appreciated by the students. Evidently the college is profiting by the example set by the botany lecturer of the Sheffield School of Pharmacy in this matter.

EARLY CLOSING.—There has been a good deal of talk over the "early closing" movement in this town, but very little has come of it. It is considered that had it not been for the apathy displayed by a well-known firm in the centre of the town, the employés at most of the leading pharmacies would have obtained the coveted half-day. A few of the principal chemists, however, seeing that the movement was not going to be generally adopted, have commenced well by closing every Wednesday at 4 o'clock.

IRELAND.

DESTRUCTIVE FIRE IN THE APOTHECARIES' HALL.—A fire of alarming extent broke out in the Apothecaries' Hall of Ireland, Mary Street, Dublin, on April 24, at about 2 P.M. The metropolitan fire-brigade were summoned, and arrived promptly, the private apparatus for extinguishing fire from Messrs. Bewley & Draper's, wholesale druggists, having meanwhile been doing good service under the directions of Mr. H. Draper, F.C.S. The fire raged until about 4 P.M.—gutting several departments and causing great excitement in the district—when it was partially got under, but the buildings were not safe until late in the evening. Some contract orders were destroyed, thirty-five hampers of malt and beef extract, and a large quantity of tinctures, oils, and patent medicines perishing in the flames.

SCOTLAND.

DUNDEE.

THE BOTANY CHAIR.—Mr. Patrick Geddes, the professor of botany at the University College, has entered upon his duties with characteristic vigour, and about a score of students have responded to the call to learn all about vegetable life. To assist him in teaching the science to this handful of pupils Mr. Geddes has engaged three assistants, one of whom is an accomplished Edinburgh student, and two local, one of the latter a lady.

EDINBURGH.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—The annual business meeting of this Association was held at 36 York Place, on Monday evening, Mr. George Coull, B.Sc., president, in the chair. The report of the Prize Committee on the "Ainslie" pharmacy prize competition, which was read, showed that the first prize had been gained by Mr. George Shaw, 17 North Bridge, with 91 per cent. of marks; the second by Mr. Charles Baildon Thacker, 20 Queensferry Street, with 84.5 per cent.; and the third by Mr. Reginald E. Macdonald, with 62 per cent. The President then presented the first prizeman with Lauder Brunton's "Materia Medica," Balfour Stewart's "Physics," and Huxley's "Physiology"; the second prizeman with Bentley's "Botany"; and the third prizeman with a copy of the British Pharmacopœia, 1885. The treasurer read the financial statement, showing a balance of 1*l.* 6*s.* 4*d.*, as against 1*l.* 12*s.* 11*d.* last year. The secretary then read the annual report, which, though indicating a slight decrease in membership, was highly satisfactory. The reports were adopted, and a vote of thanks awarded to the retiring office-bearers. The botanical excursion arrangements were remitted to the committee. The following office-bearers were then elected:—President, A. Russell Bennett; Vice-president, D. McEwan; Secretary, J. G. Wilson, 24 Barony Street; Assistant-secretary, W. R. B. Dougall; Treasurer, J. H. Hoseason; and as members of the committee:—Messrs. Baxter, Bell, Butchart, A. Findlay, J. Findlay, Lothian, McCurrie, and Macdonald. The following were also elected members of the prize committee:—Messrs. Boa, Coull, and Duncan.

GLASGOW.

BUSINESS CHANGES.—Mr. Jas. Moir, Crosshill, has removed from the premises 69 Victoria Road to a compact and elegant shop at 43 Winton Terrace, a little further north. In last week's issue Mr. Miller, and not Mr. Barrie, should have been named as the owner of the shop in Pollokshields recently bought by Mr. Kennedy.

"**LIQ. STRYCH. AND A KICK**" turns out to be the theatrical advertisement of a play by Geo. Manville Fenn, entitled "The Balloon," in which the chief character, an unfortunate doctor, wrongly supposes that some strychnine given by him to poison a dog has been taken by a lady patient, and acting under this delusion is involved in a series of embarrassments and complications, from which of course he eventually emerges in triumph.

INVERNESS.

MR. A. ALLAN has just had his shop entirely re-fitted in a most handsome style, the whole of the work having been undertaken by Messrs. Evans, Sons & Co., Liverpool.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

DR. BLONDEL has been awarded by the Paris faculty of medicine 500*f.* out of the Chateau-villard 2,000*f.* prize, for his investigations on the various strophanthuses of commerce.

MAYOR AND PHARMACIST.—The death is announced of M. Tarrade, a pharmacist, at Limoges, who for several years was the mayor of his town. M. Tarrade graduated in 1868 as pharmacist of the first class.

PHARMACISTS' MISTAKES.—Although pharmaceutical errors are rare in France, yet they do occur now and then. Two have been reported within the last ten days. One took place at Grenoble, where a pharmacist gave 2 oz. of ether to a woman suffering from tapeworm, presumably in mistake for ethereal extract of male fern. The patient recovered after four hours of energetic medical treatment. The other case occurred in Paris, and has ended fatally. The pharmacist, whose officine is situated on the Rue de Passy, is charged with having dispensed morphine instead of quinine pills, but as the result of the post-mortem has not yet been made public, it is hardly possible to say what truth there may be in the accusation.

CUSTOMS DUTIES ON SALT.—According to a law promulgated on April 19, the import dues into France and Algeria will henceforth be as follows:—On rock or sea salt—partly refined, but not white—imported from the producing country, either in Europe or elsewhere, 2'40f. the 100 kilos. (very nearly 19s. a ton). The same imported from warehouses in Europe, 6f.; white refined, 3'30f. and 6'90f. (26s. and 55s. a ton) for the two different varieties respectively. All salt from Senegal and dependencies is to be admitted free. The new tariff does not affect importations from Great Britain directly, as nothing there is changed, but it does indirectly, because formerly some nations and sea-ports were favoured, while henceforth they will all be on an equal footing, with the exception of Senegal, now treated as a colony.

A TRIBUTE TO AN ENGLISH SCIENTIST.—At the Academy of Sciences sitting of April 29 ex-President Janssen said he regretted to have to announce the death of Mr. Warren de la Rue, of London, a corresponding member for the section of astronomy. Respecting deceased's scientific labours he remarked that but few scientists have done more for celestial photography than he did. Warren de la Rue was the first to take good photographs of the moon. At the time wet collodion being the only process known, a lengthened sitting was necessary, and in consequence special apparatus and parabolic mirrors had to be devised to follow our satellite's motion. But although modern photographic methods greatly facilitate the task, nothing better has been produced than De la Rue's photographs of the moon. The silver chloride battery and other discoveries of the deceased correspondent were also alluded to. M. Janssen also warmly eulogised the private qualities of the man, whom he knew well and held in the highest regard, relating many instances in which French scientists and himself had been indebted to the kindness of their regretted colleague.

AN AVALANCHE OF INTERNATIONAL CONGRESSES.—No fewer than fifty-three international congresses of one sort or another are to take place, at fixed dates, in one of the Champ de Mars buildings set apart for the purpose. The following, of direct or indirect interest to pharmaceutical sciences, may be mentioned:—Study of questions relating to alcoholism, July 29-31; chemistry, July 29 to August 3; aeronautics, July 31 to August 3; therapeutics, August 1-5; hygiene and demography, August 4-11; photography, August 6-17; homeopathy, August 21-28; electricity, August 24-31; dentistry, September 1-7; mines and metallurgy, September 2-11; monetary questions, September 11-14; veterinary practice, September 19-24; meteorology, September 19-25; hydrology and climatology, October 3-10. Besides the foregoing there are sixteen for which no date has been fixed as yet, among which we find celestial photography, Sunday rest, an international uniform time, and zoology; and, lastly, an unknown number of congresses are to be held at the Palais des Sociétés Savantes and other places, due notice of which meetings has appeared in former numbers of *THE CHEMIST AND DRUGGIST*. If among all these attractions the scientific visitor complains that time hangs heavy on his hands he will be hard to please.

THE STANDARD KILOGRAMMES.—M. Bertrand, perpetual secretary of the Academy of Sciences, reported last Monday that the platinum and iridium alloy necessary for the thirty-six international standards has been received from the English firm of Matthey by the Metrical Weights and Measures Committee. The alloy proved to be chemically pure, and to consist of 9 parts platinum and 1 iridium, as ordered; but its physical properties left something to be desired, the specific gravity being slightly under the theoretical figures. Microscopical examination also showed the metal to be too loosely grained. In consequence the alloy was submitted to repeated annealing and powerful hammering until the specific gravity exactly agreed with theory, and could no longer be increased by further percussion. The commission now consider their metal perfect, and will proceed to execute the standard kilogrammes to be distributed.

AMERICAN COURTESIES TO THE PARIS COLLEGE OF PHARMACY.—Dr. Manuel S. Soriano, of the Mexico National Academy of Medicine, has informed Dr. Dorveaux, the librarian of the Paris Ecole de Pharmacie, that at the close of the present exposition the complete collection of the *Gaceta Médica de México*, twenty-three volumes, with the

general index, sent here for exhibition, will be, with the Government's consent, donated to the college library. The Philadelphia College of Pharmacy, too, have informed the officers of the French institution that they have resolved to present to the library of the School of Pharmacy the charts illustrating their educational methods and results, photographs of buildings, text-books, &c., which will be exhibited at the exposition. M. J. L. A. Creuse, an American graduate residing in Paris, has been charged with the pleasant duty of making the presentation on behalf of the Philadelphia College when the exposition is over. At the 1878 exposition the same college had a very fine exhibit of American native drugs, which they donated to the Paris institution, where it occupies a prominent place in the materia medica collections.

PARIS SOCIETY OF PHARMACY.

At the regular monthly meeting, held on May 1, President Bouchardat communicated an invitation from the organising committee of

THE INTERNATIONAL THERAPEUTICAL CONGRESS,

requesting the society to send a delegation to the coming gathering. After some exchange of views, it was decided it would be well that the organisation be officially represented as a pharmaceutical body, and MM. Crinon, Desnoix, Ferrand, Marty, and Portes were selected as delegates.

M. Grimbert showed in a large flask very fine

CRYSTALS OF LEVULOSE,

obtained from inverted sugar, and crystallised from absolute alcohol.

M. Portes began his reports on

THE AMERICAN UNOFFICIAL FORMULARY.

Before entering into the particulars of the formulæ, he made some general criticisms on the plan of the work, eulogising some of its features, and finding fault with others. He thought, to begin with, the newest remedies—except, perhaps, saccharin—had not received sufficient notice, and he condemned the use of fluid measures, grains, gallons, pints, minims, so bewildering to pharmacists accustomed to the clearness and simplicity of the metric system. He regretted such backsliding after the last Pharmacopœial revision had adopted the plan of percentage formulæ by weights. The foregoing being set apart, he thought the book excellent, carefully written, and very convenient for rapid reference. The typography and general get up of the volume received also their meed of praise. The formulæ themselves were next considered and discussed. The number of citrate of bismuth preparations caused wonder, and the more so that French pharmacists are almost inclined to mistrust all soluble bismuth compounds as deadly poisons. M. Portes appears to agree with his fellow-pharmacists in this regard; only, to explain the harmlessness of American doses of bismuth citrate, he supposed the salt is in the stomach immediately decomposed into an insoluble oxychloride, a theory which needs to be confirmed by facts before it can be admitted. The considerable number of elixirs, cod-liver oil emulsions, and fluid extracts was also cause for remarks, although on principle the preparations were spoken of as possessing some real advantages; so the day may not be far distant when they will make their appearance in French practice. The review of the Formulary stopped at the articles on pepsin and pancreatin, which require particular notice, and the British Unofficial Formulary will be considered afterwards.

BOROGLYCERIDE,

one of the American preparations, called for some remarks. Professor Bouchardat observed that boric acid will form similar combinations with all polyatomic alcohols, and they are all very soluble. Mannite and dulcite, for instance, may be employed instead of glycerine for making concentrated solutions of boric acid. The case of dulcite is by the way a remarkable one. While the solubility of dulcite in water is about 3 per cent., and that of boric acid not much more, on combining them, a compound so soluble is obtained that it is deliquescent, and may be evaporated to a gummy consistence with-

out appearance of crystallisation. That a true combination occurs cannot be doubted; some have called it an etherification, but it is only partly true. Yet the fact that the compound is a real combination is proved by the considerable difference between its optical properties and those of its constituent parts. While boric acid has no effect on polarised light, and dulcete only a faint action, the compound has a very strong and decided one.

Finally, M. Portes made a motion in writing, and according to rule had it laid on the table, proposing that the Paris Society of Pharmacy name a committee to frame an unofficial formulary for the guidance of physicians and pharmacists. The motion will come up for discussion at the next meeting.

EXTRACTS PREPARED IN VACUO

next received a share of attention, and it must be confessed got but scant praise. M. Juilliard started the subject by referring to some pills made with extract of valerian (Méglin's pills), which had no smell of the drug at all. On tracing up the preparation he found it had been made from very fair valerian, but in a vacuum apparatus by a manufacturing house, and it is just there that all the volatile oil is lost. The same occurs with extract of eucalyptus and other aromatic plants. An informal discussion which ensued elicited the fact, agreed to by several of the members present, that aromatic extracts are better when made by the old water-bath process than by the modern vacuum pan. Among several examples cited it was stated that recently an old jar of extract of cicuta was found in Dubail's pharmacy. The preparation had evidently been made many years ago, and before vacuum appliances were known. Yet it had a very strong mousy smell that is nowadays but seldom found in modern extracts, which shows that all change is not necessarily an improvement.

THE FORTHCOMING EXHIBITION.—“An Occasional Correspondent” writes from Paris under the date of April 26:—Perhaps your readers may be interested in hearing of the progress of the great International Exhibition. Some portions are in a most chaotic state, while others promise to be ready by the opening day, and a few only are quite complete. The British section is most advanced of all. Messrs. Brunner, Mond & Co.'s tastefully arranged case is all ready for the jars of soda, and a plush cushion awaits the numerous medals they have received at other exhibitions. In the Industrial Section the Crown Perfumery Company's case is quite complete; and Pears' Soap case is also ready for the goods. Burroughs, Wellcome & Co. have here the same case in which they exhibited at Glasgow, Brussels, Manchester, and the American. It is of teak-wood, carved for the Indian Exhibition by the Punjab Government. In the Food Section the British are likewise most advanced. The cases of Messrs. J. & J. Colman, J. S. Fry & Co., and Brand & Co. are quite complete; and the large cases of the Salutaris Water Company and the Kepler Malt Extract Company are nearly finished. The Americans are a little behind the British exhibitors; some few cases are already in position, notably those of Colgate & Co., the Vaseline Company, and Fairchild Bros. & Foster. Messrs. Ladd & Coffin have a handsome case for Lundborg's perfumes, in front of which the centennial silver perfume fountain is to be placed. The difficulty with these sampling exhibits is that they tend to block up the passages, and cause an extra expense to the exhibition authorities, who have to hire extra policemen to make the public “move on.” Theo. Ricksecker, of New York, has some big unopened cases next to Colgate's, so I expect he is going to make a fine display. No strictly pharmaceutical exhibits other than Fairchild's are yet visible, and the management of both the British and American sections will give no list of intending exhibitors, perhaps partly because their business is to sell catalogues, and not have them anticipated in the newspapers. Any visitor who proposes buying a complete catalogue in French had better hire a dray to carry it off in, for it will probably not weigh less than one or two hundred pounds, nor be less than a yard in thickness. This may give one some faint idea of the stupendousness of the whole exhibition. The French are not successful as colonists or as Monarchists, but in getting up exhibitions they beat the world. Their taste is exquisite, their engineering ambitious, bold, and scientific, their archi-

ture magnificent. Everything about the exhibition, excepting the corrugated iron offices of the British Commission, is developed on a splendid scale, from the food and industrial sections to the machinery hall and the Eiffel tower. The whole is simply indescribable, and no sensible person who has the opportunity should miss seeing the combined illustrations there presented of the world's progress. It is worth a year's schooling, as valuable as a tour round the world for the information it gives.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

THE PROPOSED GERMAN HOSPITAL AT SAN REMO is making considerable progress. Contributions come in so readily that the committee has already been able to purchase a house and garden for the purpose.

THE OFFICIAL GERMAN PHARMACOPOEIA SUB-COMMISSION will meet at the end of June, and at the beginning of next year a new edition of the Pharmacopœia, or, at least, a supplement to the present edition, may be expected.

THE EIGHTEENTH GERMAN SURGICAL CONGRESS was held at Berlin under the presidency of Professor Bergmann. In his opening address the President alluded to the illness of the late Emperor Frederick. He also stated that the subscription for a Langenbeck house already amounts to 4,000%. Among the contributions from foreigners Mr. Victor Horsley, of London, read a paper “On the Lesions of the Motory Cortical Regions of the Brain,” which was warmly received.

URINE POISON.—In the *Zeitschrift für Klinische Medicine*, Dr. Stadthagen, of Berlin, publishes a lengthy communication on the urine poison. It is well known that from 50 to 60 c.cm. of urine for one kilo. of body-weight is a fatal dose for animals. The author made numerous chemical and physiological experiments to ascertain what is the poisonous ingredient, and he comes to the conclusion that the poisonous effect is principally due to the potash salts. It is true that the symptoms of urine poisoning do not entirely correspond to a pure potash poisoning, but it is to be remembered that there are many organic substances in the urine which may modify the symptoms.

THE ASSOCIATION OF GERMAN BUTCHERS has just sent a petition to the Imperial Parliament with regard to the proposed “Bill for official examination of imported lard, and prohibition of importation of impure and adulterated lard.” The adulterated articles are said to come principally from America. From documents added to the petition it appears that the so-called refining of lard, formerly much practised, has been almost given up, but that the term “refined lard” has for the last seven or eight years been used for a fabricated article containing little or no lard, but much obnoxious or valueless substances instead. The lard of beasts which have died has been found to have been used in mixture.

THE PROPHYLAXIS OF PHTHISIS.—Dr. Dettweiler read a paper on this topic at the Congress for Internal Medicine in Wiesbaden. He confirms Cornet's researches (*vide THE CHEMIST AND DRUGGIST*, page 533) and deductions, and recommends the use of a pocket-spittoon. For this purpose he showed a very elegant little apparatus of blue earthenware. Cornet's proposals have excited general interest, and the importance attributed to them in official quarters is shown by a decree of the Berlin police authorities appealing to the general public to make use of the pocket-spittoon in all cases of consumption. The same decree prescribes, furthermore, distinct hygienic measures for prevention of phthisis in asylums, and for the isolation of consumptive patients.

A MUSK MICROBE.—At the Hygienic Institute of the University of Berlin a Japanese pupil of Professor Robert Koch, Dr. Kitasato, has discovered a new microbe, which is said to possess the peculiar property of causing a sensation like the odour of musk. There are bacteria which produce colours, others produce light, others poisonous alkaloids. But a bacterium which produces sensations of smell is quite new. The

musk microbe, so called by Dr. Kitasato, was first found in an infusion of hay. It may be cultivated on the most different nutrients, but thrives best on bread, rice, and potato pap. The pure cultures of the microbe are first slightly red, later on tile coloured. They have a distinct odour of musk. This odour is also possessed by a tincture obtained by extraction of the cultures with alcohol.

AN ELECTRO-CHEMICAL METHOD OF BLEACHING.—According to E. Hermite, a 5-per-cent. aqueous solution of chloride of magnesia is in a suitable apparatus submitted to the process of electrolysis. The chemical reactions taking place in such a solution by the action of an electric current are interesting from a theoretical as well as from a practical point of view. At the positive electrode chlorine and oxygen, the latter derived from the decomposition of water, combine to form an unstable substance which has powerful bleaching properties. At the negative electrode magnesium and hydrogen meet; the magnesium is transformed into oxide of magnesium, hydrogen escaping in a free state. These reactions become somewhat modified when the article to be bleached is added. In this case the oxygen acts on the vegetable colouring-matter, transforming it into a white substance. Chlorine joins the hydrogen, forming hydrochloric acid, which, coming in contact with oxide of magnesia, reproduces the chloride of magnesium salt, which was originally employed. In this way a constant decomposition and reproduction of the solution is going on. The latter rarely requires to be renewed, while bleaching is kept up as long as the electric current is maintained. The new process has been adopted by some of the largest paper-manufacturers, and is likely to be of great practical importance. [This process, which our German correspondent calls "new," has apparently just come into use in Germany; but our readers may recollect that it was well discussed at the meetings of the Society of Chemical Industry two years ago, and has been tried in this country, with what success has not appeared.—ED. C. & D.]

THIOL.—The success of ichthyol in the treatment of rheumatism and certain skin diseases has encouraged researches tending to synthetically obtain a substance identical with it in composition and action. After laborious preparatory work, Dr. Jacobsen has succeeded in obtaining such a product, which he calls thiol, from "theion" (sulphur). He found that while saturated hydrocarbons do not take up sulphur, considerable quantities of this substance may be added to non-saturated hydro-carbons. On this circumstance he bases his patented process, according to which so-called gas-oil, consisting of the fluid products of the distillation of coal-tar oil, is heated in an oil-bath to a temperature of 215° C., 10 per cent. of flowers of sulphur being gradually added meanwhile. This process yields a crude thiol oil which has now to undergo sulphurisation, effected by the addition of an equal quantity of pure concentrated cold sulphuric acid. The result is thiol-sulphuric-acid, which is identical with ichthyol. It forms compounds with soda and ammonia, equal in every respect to the salts of ichthyol. It is claimed that thiol compares favourably with ichthyol in being inodorous, easily pulverised, and cheaper. Its therapeutic action has been studied by Drs. Reeps and Buzzi, both of Berlin. They declare it to have the same therapeutic effects as ichthyol. Thiol is a dark-brown fluid of syrup consistency, and is also to be obtained in the shape of a fine powder, prepared from the fluid by evaporation. Thiol may be dispensed as an ointment in combination with vaseline (3j), lanolin (3j), with thiol 3j; to make a dusting-powder 1 drachm of thiol may be combined with 2 drachms of oxide of zinc, 1 drachm of powdered starch, and 2 oz. French chalk. For internal administration the dried thiol is combined as a pill with licorice powder and glycerine of tragacanth. The dose is about 2 grains.

ACCORDING to Hanks all the different explanations which have been advanced regarding the coloration of carbolic acid may possibly be right.

It has recently been reported that the military governor of Kirin, in Manchuria, sent to the Emperor of China about 9½ oz. of the rare Chinese ginseng, hitherto supposed to be extinct. It was sent by special messenger, and by the time it reached the Emperor the total cost of the much esteemed drug was 400%, or about 45% per oz.

Gazette.

PARTNERSHIP DISSOLVED.

Cowburn, W. H., and H. T. Parkin, under the style of the Cowburn Chemical Company, Manchester, dealers in muriatic acid.

THE BANKRUPTCY ACT, 1883.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Bonsor, Herbert Webb, Cumberland Market, Regent's Park, and Worcester Park, Surrey, vinegar brewer—May 9, 33 Carey Street, Lincoln's Inn; May 22, 34 Lincoln's Inn Fields.

Stevenson, Robert Albert William, Brigg, veterinary surgeon—May 10, Official Receiver's Office, Great Grimsby; June 5, Town Hall, Great Grimsby.

ADJUDICATIONS.

Benson, George William, Great Portland Street, retail chemist and druggist.

Bonsor, Herbert Webb, Cumberland Market, Regent's Park, and Worcester Park, Surrey, vinegar brewer.

Clarke, Henry Berger, late of Great Tower Street, now of Mincing Lane, City, chemical merchant.

Harman, Francis Bennett, Farmer's Road, Kennington Park, and Womersley Road, Crouch Hill, mineral-water manufacturer.

NOTICES OF DIVIDENDS.

Donnell, John Bernard, Newcastle-on-Tyne, perfumer—first and final div. of 10½d., May 6, Official Receiver's Office, Newcastle-on-Tyne.

Howard, Heaton Clark, Clapham Road, Lambeth, surgeon and medical practitioner—first div. of 2s. 3d., any day (except Saturday), Chief Official Receiver's Offices, 33 Carey Street, Lincoln's Inn, W.C.

Leslie, Joseph Blackburn (trading as J. B. Leslie & Co.), Sheffield, chemist and druggist—first and final div. of 1s., any day, 79 Mosley Street, Manchester.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

Barnes, Samuel Hicks (trading as Lewis Addington), Falcon Square, E.C., and Essex Road, Islington, gum ticket and label manufacturer—discharge suspended for six months.

Eichholtz, Robert (trading as Robert Eichholtz & Sons), Newcastle-on-Tyne, export merchant—discharge refused without prejudice to any future application.

EXTRACTS FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision in the Act, making any of these arrangements binding upon dissenting creditors.

Jones, Henry (trading as Henry Jones & Son), 27 Princes Street, Stamford Street, S.E., surgical case maker; date, April 18; filed, April 24; unsecured liabilities, 102l. 18s. 8d.; estimated net assets, 25l. 14s. 8d.; composition, 5s. in the pound by two instalments of 2s. 6d. each in seven days and six months from date of deed.

	£	s.	d.
Burton, William Cullis, London	31	0	0
Harpham & Co., London	13	0	0
Taylor, Mary Hannah, London	27	0	0

Smith, John, 25 Neville Street, Ulverston, veterinary surgeon. Trustee: F. J. Blacklock, Ulverston, Auctioneer. Date, April 23; filed, April 30; unsecured liabilities, 400l.; estimated net assets, 350l.

	£	s.	d.
Blamire, W., Ulverston	100	5	0
Clay, Dod & Co., Liverpool	14	0	0
Iddon & Murphy, Ulverston	10	0	0
Mackereth, W. H. (executors of), Ulverston ..	48	16	0
Smith, Annie, Ulverston	55	12	0
Williams & Stevens, Liverpool	10	10	0
Wyleys & Co., Coventry	18	3	0

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

ALL the members of the Council, now reduced to a score by the resignation of Dr. Symes, were present at the meeting on Wednesday, saving Messrs. Niehoff, Savage, and Schacht. Mr. Carteighe presided, and, after the minutes had been approved of, he read a letter from Mr. Hopkin, in which that gentleman stated that he could not serve as an auditor during the ensuing year. In his place, and in accordance with the by-laws, the President proposed Mr. Francis Yates (of Davy, Yates & Routledge), 64 Park Street, Southwark, who, he said, had been a member of the Society for many years, and had been a student of the school.

Mr. Evans questioned the President regarding the correctness of this nomination, and several others joined in the conversation that followed, but the President showed all the questioners that they were labouring under a misconception. He merely, as representing the Council, submitted Mr. Yates's name, and it would go forward with the other four for the approval of the members generally. This explanation gave satisfaction, and after the Council had transacted the formal business of electing members, &c., and granting diplomas to the pharmaceutical chemists who passed the Major examination last month, the next business was the

ELECTION OF HONORARY MEMBERS.

The PRESIDENT explained that the names of Mr. William Crookes and Professor Burdon-Sanderson had been selected last month, and in accordance with by-law had been suspended in the library since. In now proposing that they should be elected, he said that the honorary membership was the highest honour that the Council could confer upon distinguished men. Mr. Crookes was the discoverer of thallium and the author of a great number of scientific papers, as well as a man of remarkable originality of mind. Of Professor Burdon-Sanderson, he would only say that he was the greatest physiologist now living, and while the Council desired to honour these men, he might say that they, by electing them, conferred an honour on themselves.

The motion was unanimously agreed to.

FINANCE REPORT.

This covered the month of April, and that being the last month in which the annual subscriptions to the Society are received without fine, the receipts from this source were over 2,000*l.*, and that together with the dividends on stocks and a balance of 1,687*l.* from March, gave the committee fully 4,000*l.* to deal with, and they recommended payments of 840*l.* only, all of which were of the usual monthly character. The Benevolent Fund account was equally satisfactory; subscriptions during April amounted to over 500*l.*; there was a donation of 100*l.* from Mr. William Scott Brown which enabled the committee to recommend a further investment of 100*l.* Commenting upon the accounts, the President expressed his gratification at their favourable character, especially of the Benevolent Fund account. It was pleasing, he thought, that one of their old members, Mr. Brown, being incapacitated owing to advancing years from taking an active part in the work of the Society, still remembered them in such a handsome manner. (Hear, hear.)

The report was adopted.

THE BENEVOLENT FUND.

The report of the committee of this fund was received, as usual, *in camera*, and on resuming

The VICE-PRESIDENT moved its adoption. Six cases had been considered, in two of which grants of 5*l.* each were recommended, in other two 10*l.* each, one case was deferred for further information, and another was not entertained, because the applicant receives 5*s.* a week from her son and 5*s.* from a relative. Two widows had written regarding the admission of their children into some orphan asylum, and the Vice-President hoped that they would be assisted by the members of the Society in their effort to get them in. At the same time some reference was made to other orphans whom the Council has for a long time taken an interest in.

It was suggested that the Council should make some inquiry regarding them.

Mr. CROSS, speaking in regard to orphanages, suggested that the Council should subscribe to one or more, so that they might have the privilege of nominating any children in whom they were interested. He favourably mentioned the Wolverhampton Orphanage as one which would suit for chemists' children, being for middle-class children.

Mr. RICHARDSON supported this suggestion. He had some time ago asked the secretary if nothing had been done in this direction. He thought the best thing to do was to start a special fund, and he would be very glad to give a good subscription to it.

Mr. ALLEN was also pleased with the idea, and mentioned that the Actors' Benevolent Society have an arrangement with an orphanage, whereby they have the privilege of nominating a child on payment of an annual sum.

Mr. ROBBINS said that the Council had made inquiries about the matter some years ago, and found that the amount asked for one child was from 100*l.* to 160*l.* The proposal was, therefore, abandoned.

Mr. HAMPSON said this was not Mr. Cross's meaning. What was wanted was simply the right to nominate and not to elect. This could be secured by the payment of an annual subscription.

Mr. RICHARDSON said that a special fund would meet the case.

Mr. CROSS wished to explain that his proposal was not what Mr. Robbins took it to be. They would not require a nomination every year, and simply wished to have the power to nominate a child when required. The advantage of the Wolverhampton Orphanage was that it was a middle-class school, and there were few applicants from that class, most being from the working classes, so that chemists' children would stand a good chance of being elected.

After some further conversation, in which Messrs. Robbins, Butt, Hampson, and Atkins joined, the PRESIDENT supported the idea of the last-named, that the matter should be referred to the committee, who would get all particulars regarding the different orphanages, and would thus be in a better position to judge of what could be done. For himself he would say that it would be a good thing to make some provision of this kind for the children of distressed members; and as it was the tendency of all who took an interest in charitable institutions to bring about affiliation, the committee, he hoped, would work in this direction.

THE ANNUAL REPORT.

The PRESIDENT intimated that this report had been sent up by the committee, and it would be advisable to consider it at this stage, and in the absence of reporters. The Council spent fully an hour by themselves; and, on resuming, it was intimated that the report had been duly received and adopted. It was also resolved that it should be distributed with the voting papers.

[The report and financial statement are printed at the end of this report.]

A SUCCESSOR TO DR. SYMES.

The PRESIDENT now said that it fell to the Council to elect at this meeting a member of the Society to fill the place rendered vacant by the resignation of Dr. Symes. He wished to submit the name of Mr. John Harrison, of Sunderland, a gentleman who was well known in the trade as a man of exceptional ability and activity, and one, he was sure, who would do his duty conscientiously. Although Mr. Harrison had in past years attended the house as the advocate of views which were opposed to the opinions held by many round that table, still he would say that Mr. Harrison was a man whose opinions generally were sound and honest. Moreover, he represented that important class of members, chemists and druggists, for whom special provision had been made in the Pharmacy Act. Although he might have wished him to be a pharmaceutical chemist, he would say that in Mr. Harrison's case there were exceptional circumstances, and it was not for want of ability.

The VICE-PRESIDENT, in seconding the motion, endorsed what the President had said regarding Mr. Harrison's qualifications. He was a gentleman who had shown for many years a great interest in pharmacy and pharmaceutical politics, and as a representative of the class of chemists and

druggists, who for some reason had not been represented for some time, he would be a source of strength to the Council. This resolution was passed amidst loud applause.

DEATH OF MR. FREDERICK BARRON.

On resuming after luncheon the President said that during the sitting of the Council intelligence had been brought of the death of one of their old auditors, Mr. Fredk. Barron, who had done much for the Society in many ways. If they were to separate that day without making some reference to the matter that action might be misunderstood; therefore, he thought it right that he should now submit a resolution. He might say that Mr. Barron had been a most liberal supporter of the Benevolent Fund; some years ago he had, indeed, in view of his death, made a very large donation to the funds. As a leading member of the wholesale trade Mr. Barron's munificent hospitality was familiar to them all, and probably there was no one so widely respected as he was. The President accordingly moved:—

That this Council has heard with great regret of the death of Mr. Frederick Barron, a former auditor of the Society, also a munificent supporter of the Benevolent Fund, and desires to express its sympathy with the family of the deceased in the loss they have sustained.

THE VICE PRESIDENT, in seconding the motion, said that he had known Mr. Barron since he knew anything of pharmacy. His disposition towards the Society and to the trade showed him to be one of the most large-hearted men, ever ready to help the struggling and the unfortunate. His death was a distinct loss to pharmacy.

The resolution was passed in silence.

NORTH BRITISH BRANCH.

The report of the Executive was read by the secretary. It showed that during the year three meetings had been held, apart from meetings of the General Purposes Committee, which is composed of members residing in the Edinburgh district. After referring to some internal changes which had taken place during the year, the report proceeded to state that the examinations had been satisfactorily conducted by the Scotch Board during the year, under the improved conditions for dispensing purposes, as recommended by Messrs. Gibson and Nesbit. The museum and library were also progressing satisfactorily, so far as additions to their contents are concerned, while as to appreciation thereof the Executive were convinced that there was every reason to be gratified. The number of visitors during the year was—day 2,174, evening 1,039; altogether 3,213—a small increase over the preceding year. The number of books lent out was 874, being an increase of 150 nearly over last year. The number circulated outside Edinburgh was, however, somewhat smaller. The Executive proceeded to report on the five evening meetings which had been held, and spoke highly of the papers read and the attendances at the meetings. The present condition of the property was referred to as being satisfactory, and it was suggested that some internal painting should be done during the summer recess.

THE PRESIDENT moved that this report be received and entered in the minutes of the Council. He said that it was satisfactory that the work of the Society in Scotland was going on so well; and, after commenting upon the advantages of the Edinburgh museum and library, said that much of the success of the branch was due to Mr. Hill (the assistant-secretary in Scotland) in his department. He wished to compliment him, and to place on record his expression of the zeal and ability with which Mr. Hill did his part of the work, as well as to acknowledge the zeal and care with which the Executive did theirs.

Mr. ROBBINS seconded the motion, remarking that it was pleasant to know that things were going on so smoothly and comfortably after the troublous times they had had.

Mr. HAMPSON considered that the report was a very important one and in every sense gratifying. It denoted an improved tendency not only in the working departments of the Society, for they might take it that the success showed a growing attachment towards the Society in London. Still, there was something to be done in the way of increasing the number of chemists from Scotland who were connected with the Society. No matter how satisfactory the reports

might be, it was necessary that they should have a large accession of strength from Scotland.

Mr. WATT, as the Scotch representative, said it was very gratifying to hear all this. He could assure the Council that the house in Edinburgh was looked upon as a home—as the centre of pharmacy in Scotland. And regarding their assistant secretary, he was sure that no remarks could be made of Mr. Hill which could be too high. He was an excellent servant, and carried on his work with zeal, heartiness, and intelligence. Mr. Gilmour, the chairman of the Executive, was also devoted to his work, and his name deserved to be mentioned in connection with the report. (Hear, hear.)

Mr. ATKINS was convinced from the nature of the report that the Council had done the right thing in getting the new house in Edinburgh. Referring to the evening meetings, he said that the subjects upon which papers had been read were quite the right thing, and were ably discussed. These meetings were a credit to the Society, and just what they ought to be in such a city as Edinburgh.

After some further conversation the motion was adopted, and the proposal regarding painting was also approved of.

LIBRARY, &C., REPORT.

This report contained references to the library, which in March was visited by 480 persons during the day, and by 201 in the evening. The museum was visited by 488 in the daytime, and 123 in the evening. As delegates for the Hygienic Congress Committee the nomination of the President and Vice-President for the time being was recommended. The draft annual report had also been considered by this committee. The report was adopted.

RAILWAY RATES BILL.

The proposals of the railway companies had been considered by the Law and Parliamentary Committee, which was strengthened by the addition of Mr. Charles Umney. The committee proposed that a sub-committee should be appointed to draw up a memorial, to be sent to the Board of Trade and the railway companies, in which the objections of the Council to the new rates should be stated.

THE PRESIDENT, in moving the adoption of this report, said that in the memorial it was proposed to urge that no serious change should be made in classification and rates of carriage for drugs and chemicals in cases and hampers. These, the committee would urge, should be placed in Class 4, and "smalls" should be treated on a more liberal scale than was proposed. "Smalls," he added, formed an enormous feature in the carriage of goods received by chemists and druggists, and the proposed rates increased the disproportion between these and the rates for larger parcels. Then they would also urge that empties should be placed in Class 2. The committee had reason to believe that a memorial, with the seal of the Society attached, would be received by the Board of Trade with respect, and when the matter came to be considered by the Board, although the railway companies would be represented, and it might be said that the carriage paid by chemists and druggists as a class was insignificant, if the Council were able to put before the Board reasonable arguments why they should not be increased, they would be able, he thought, if not to get them decreased, to show just grounds of objection to the proposed alterations. (Hear, hear.) In approaching the question, the committee were aware that the rates proposed were the maximum, which might not actually be charged, and for that reason it was not possible to make a proper comparison between the present charges and those which would be fixed. But it was well to be sure that the case of chemists and druggists was properly put before the matter was finally decided on.

Mr. ATKINS was glad that the Council was moving in this matter. In doing so they were acting in harmony with every trading interest in the country. They were a trading body although their interests were largely educational, and it was right that they should look after the interests of the trade in this direction. There was a danger that the very smallness of their interest might be overlooked. He was surprised to see how much it affected chemists and druggists, and from the discussions which had taken place throughout the country it was evident that a great change all round was

to be effected. Carriage was a more serious item to country chemists than to those in London. To country chemists it amounted to a good rental. He remembered the day when empties were carried at a merely nominal charge, now they were taken by weight, and the proposed charges would be much more serious.

Mr. HAMPSON said it would have been a dereliction of duty if the Council had remained silent on this question. It was often said that they did not take sufficient interest in trade questions, and there might be some truth in that. This, at all events, was a matter in which they were doing well. Mr. Atkins had spoken of the small amount paid by chemists in carriage, but they should remember the small amount they received for their goods. He therefore thought that they should make their weight felt in the matter. Railway companies in some cases were simply monopolists, and they ought to do all in their power to keep them to fair terms.

Mr. WATT said he was glad to see the Council taking an interest in a matter which fairly affected chemists and druggists, and he trusted that now they had begun in a right direction, they would keep in it.

Mr. ROBBINS trusted that the memorial would be of service. At the same time he wished to point out that the railway companies did not propose to go as high as the maximum charges, and he thought competition would prevent that.

Mr. EVANS, after referring to the origin of the Bill and the action of the chambers of commerce throughout the country, said he had no faith in railway companies, for where they had no opposition they took as much as they could get, and traders were at their mercy. The only way they could prevent that in regard to the new charges was to oppose them while they had the opportunity.

The motion was agreed to, as was also the proposal to affix the seal of the Society to the memorial.

SCHOOL OF PHARMACY PRIZES.

The results of the Class examinations were given in the General Purposes Committee's reports. All the professors and teachers reported satisfactorily on the work done, and the following are the names of the prize-takers:—

Botany.—Bronze medal, H. D. Fuge; Certificates of honour, Alfred Latchmore and W. J. Jones.

Materia Medica.—Bronze medal, H. D. Fuge (100 per cent.).

Pharmacy.—Bronze medal, H. D. Fuge (100 per cent.).

Practical Chemistry.—Bronze medal, G. S. Fuller; Certificates of honour, T. Woodruff and J. B. Thornly.

Theoretical Chemistry.—Bronze medal, J. B. Thornly; Certificates of honour, H. D. Fuge, Alfred Latchmore, and R. H. Norman.

This was all the public business.

FORTY-EIGHTH ANNUAL REPORT OF THE COUNCIL.

In presenting the forty-eighth annual report the Council has to record that the financial statement shows a slight excess of expenditure over income. This, however, is not due to normal outlay, but to the incidence of several charges for furnishing and fitting the new building, that have been charged to the current account and not to the capital account, to which the cost of the building itself has been debited.

There has been a decrease of nearly 100% in the gross receipts from subscriptions, but the amount received from candidates for examination shows an increase of nearly 200% as compared with the previous year.

The number of candidates in 1888 for the Minor examination was 9 in excess of that of the previous year. The Preliminary examination showed an increase of 20, whilst the number of persons presenting themselves for the Modified examination was the same as in 1887. The most gratifying fact in connection with the examinations is the increase of 23 in the number of candidates for the Major examination, 117 having presented themselves in 1888, and 94 in 1887.

Dr. Thomas Stevenson, official analyst to the Home Office and Lecturer on Toxicological Chemistry and Forensic Medicine at Guy's Hospital, has been appointed Visitor to the examinations on behalf of the Privy Council, in succession to the late Dr. Greenhow.

The amount received on account of the Journal for advertisements and sales has been almost sufficient to cover the cost of its production and supply to the subscribers of the Society, and also its gratuitous distribution to a large number of British and foreign societies and associations.

Upwards of 300 books and pamphlets have been added to the library in London during the year, and numerous additions have also been made to the library in Edinburgh. In the case of both libraries the Council has to thank various donors for valuable contributions. A revised catalogue was issued in January last.

A large number of important donations to the museum has been made during the past year. The Director of Kew Gardens presented 300 specimens, and a series of rare chemicals were received from the "Fabbrica Lombarda di Prodotti Chimici" at Milan. A series of Indian medicinal plants and many rare and curious drugs have been received; also a number of excellent microscopic slides of drugs, besides other objects of interest from firms and individuals at home and abroad.

In October last the forty-seventh session of the Society's School of Pharmacy was inaugurated by an address delivered to a large and appreciative audience by Sir Henry Roscoe, M.P., F.R.S., an honorary member of the Society. Sir Henry Roscoe has also rendered the Society great service by the active part he has taken in the introduction and promotion in the House of Commons of the Pharmacy Acts Amendment Bill. At the close of the inaugural meeting a testimonial was presented to Emeritus-Professor Bentley in token of the esteem and respect in which he is held by his old pupils and friends. A portrait of the Professor was also presented to the Society by the subscribers to the testimonial.

The Council had under its consideration in August an alteration in the course of instruction in the Society's school. It has not been found possible to compress within a period of five months a complete course of instruction in all the respective subjects and to repeat this course during the session. A plan, very similar to that which was originally adopted in the school, has therefore been reverted to, and the course of instruction, which formerly occupied five months, now extends over the entire session, being divided for the convenience of students into an elementary and an advanced portion.

The evening meetings of the Society both in London and Edinburgh have been characterised by more than ordinary interest. A number of useful papers have been read during the year, and the results of several investigations conducted in the Pharmaceutical Society's Research Laboratory have been communicated to the meetings held in London.

A resolution was passed by the Council in October to the effect that carbolic acid ought to be deemed a poison within the meaning of the Pharmacy Act, 1868. This resolution was communicated to the Privy Council, together with a letter reminding their Lordships of a similar resolution submitted to them by the Council in 1881 for approval, and on which no decision had been arrived at. To these resolutions the Government department has not yet given its confirmation.

The Research Committee appointed by the Council, as mentioned in the report of last year, has had the laboratories, &c., in the new building fitted up for research work. The Professor of Chemistry having been appointed Director of the Laboratory, and Mr. Dymond, Demonstrator, several important investigations have been made, and the results published in the Journal. The work initiated in the Society's Laboratory has been supplemented by experiments conducted by Professors Cash and Leech and Dr. Lauder Brunton. The Committee, in accordance with the terms on which it was appointed, has received the co-operation as additional members, of Professor Michael Foster, F.R.S., Professor Frankland, F.R.S., Dr. Lauder Brunton, F.R.S., and Mr. Charles Ekin. The result of the work, done fully detailed in the report submitted to the Council in March last, has been the means of increasing the influence of the Society among those whose help and goodwill it is desirable to obtain.

During the current year 153 cases of infringement of the provisions of the Pharmacy Acts were reported and dealt with. In the majority of these cases the usual letter of warning from the Registrar was sufficient to prevent a repetition of the offence, and in those cases in which it was found

necessary to institute legal proceedings no special feature arose to which attention need be drawn.

The Pharmacy Acts Amendment Bill introduced into the House of Lords last session by the Earl of Milltown was, owing to the state of public business, prevented from reaching a second reading in the House of Commons, and had consequently to be withdrawn in December. Your Council, deeming it to be its duty in the interests of pharmacy to make continued endeavours to amend the law relating to pharmaceutical education, has taken steps to reintroduce the same Bill as was last year submitted to Parliament. The present measure has been introduced into the House of Commons by Sir Henry Roscoe, Dr. Farquharson, Sir Tindal Robertson, Mr. Craig, Sir Trevor Lawrence, and Sir Guyer Hunter.

The rates submitted to the Board of Trade by the various railway companies under the Act passed last session have been carefully considered by your Council. A memorial to be forwarded to the Board of Trade has been drafted, setting forth objections against the proposed rates, and especially calling attention to the injustice and incongruity of classification in regard to drugs and non-dangerous chemicals and pharmaceutical preparations. A copy of this memorial will also be sent to the leading railway companies.

The North British Branch continues to maintain its reputation for useful work, and the manner in which the Executive conducts the Society's business in Scotland is a source of satisfaction to the Council. The Museum and Library in Edinburgh are becoming more and more utilised and appreciated, whilst the papers read at the evening meetings have been the means of bringing many important subjects under the notice of pharmacists.

The houses Nos. 15 and 16 Bloomsbury Square having, under an agreement with the Duke of Bedford, come into the possession of the Society on March 25 last, your Council, after careful inquiry and consideration, has decided to rebuild two houses on the site—one, No. 15, to be let, and the other, No. 16, to be used for the purposes of the Society.

Your Council having considered it desirable that the Society should have district local representatives in London, a divisional secretary in each of the metropolitan boroughs—fifty-eight in all—was elected at its meeting in March. A conference of these officers was held shortly after their appointment, and it is confidently hoped that satisfactory results as regards the strength and prosperity of the Society, the interchange of information, and the support given to the Benevolent Fund will follow.

Notwithstanding the continuous endeavours of your Council to urge upon all registered persons the claims of the Benevolent Fund, it has not during the past year received more than the average amount of support from those for whose exclusive benefit it was founded. The amount subscribed in 1888 was 1,500*l.*, whilst the amount for 1887 was 1,470*l.* The expenditure on account of annuities absorbed 1,705*l.*, met in part by subscriptions, and in part by the income derived from investments, and a further sum of nearly 400*l.* was expended in casual grants. Owing to the condition of the fund it was considered necessary to limit the number of annuitants for election in December last to three, instead of electing six, as has been the annual practice since 1880. The Council again appeals to local and divisional secretaries, members of the Society, and others to make renewed efforts to place the fund in such a position that an increased number of annuitants may be elected, and larger grants made in deserving cases than is possible with the present restricted income.

During the year Mr. Baildon and Mr. Symes have retired from the Council. The vacancy caused by Mr. Baildon's retirement has been filled by the election of Mr. Watt, of Laddington, and Mr. Symes has been succeeded by Mr. John Harrison, of Sunderland. The retirement of Mr. Baildon caused a vacancy in the Executive and in the office of chairman of the Executive of the North British Branch. Mr. W.ilmour has been chosen to succeed Mr. Baildon in the latter office.

The Council has added the names of Professor Burdon-Anderson, M.D., F.R.S., LL.D., Waynflete Professor of Physiology in the University of Oxford, and Mr. William Crookes, F.R.S., a past President of the Chemical Society, to the roll of Honorary Members of the Society.

The obituary for 1888 is exceptionally long, and includes many well known and much respected names connected with pharmacy. The death of Mr. John Williams, one of the Society's past Presidents, will be felt not only by the Society of which he was for so many years a loyal and hearty supporter, but by all who practise pharmacy in Great Britain. Mr. Williams, both as a member of the Society and of the British Pharmaceutical Conference, was personally so well known and beloved, that the Council feels that the members will regard his loss as that of a personal friend. Besides the official positions held by him in the Society, Mr. Williams had been President of the British Pharmaceutical Conference, and was at the time of his lamented death a Vice-President of the Society of Chemical Industry.

The Council has also to deplore the loss of Mr. Frederick Barron, an old member of the Society, and for many years an auditor. Mr. F. Barron was a munificent supporter of the Benevolent Fund, and of all movements having for their object the advancement of pharmacy and the welfare of the drug trade.

The death of two of the honorary members of the Society has to be recorded: Dr. E. H. Greenhow, who for twenty years was the Government Visitor at the Society's examinations in London, and Sir W. O'Shaughnessy Brooke, an honorary member for more than thirty years.

Amongst the other losses the Society has sustained by death may be noted those of Mr. David Kemp, Mr. Richard Raimes, Mr. Francis Middleton, Mr. W. M. Colchester, Mr. Robert Palmer, and the following who had filled the office of Local Secretary:—Mr. H. R. Cornish, Mr. R. M. Davies, Mr. J. Hunter, Mr. T. White, and Mr. J. D. Williams.

FINANCIAL STATEMENT FOR 1888.

RECEIPTS.

	£	s.	d.
Balance January 1, 1888 :—In Treasurer's hands	1,299	9	6
In Secretary's hands	114	5	7
In Honorary Treasurer's hands (Scotland)	57	18	2
Life Members' Fund :—Interest	87	11	3
Life Subscriptions	42	0	0
Interest on Investments	490	0	3
Subscriptions :—1,473 Members, Pharmaceutical Chemists ..	1,546	13	0
641 " Chemists and Druggists	673	1	0
1,281 Associates in Business	1,345	1	0
941 Associates not in Business	494	0	6
1,023 Apprentices or Students	537	1	6
8 Entrance Fees	16	16	0
Fees paid upon Restoration to the Society	18	7	6
Examination Fees :—1,520 Preliminary Examination	2,739	16	0
4 Modified "	4	4	0
1,145 Minor "	3,086	17	0
121 Major "	514	12	0
Registration Fees :—10 Fees for Restoration to the Register ..	10	10	0
8 Registration Fees as Chemists and Druggists	42	0	0
Journal :—Advertisements	4,436	7	7
Sales	357	9	8
Register :—Sales to the Government	147	10	0
Sundry Sales	12	5	0
Calendar :—Sundry Sales	25	17	0
Penalties and Costs for Infringements of the Pharmacy Act ..	158	9	7
Rent of Stable in rear of 36 York Place, Edinburgh	18	17	1
Sale of £4,500 New Three per Cents.	4,493	7	0
Total	£22,776	7	2

EXPENDITURE.

	£	s.	d.
Annuities :—Professor Redwood	100	0	0
Mr. Elias Bremridge	400	0	0
Carriage of Books, and other Parcels	25	10	9
Certificates of Death	21	10	10
Conversazione	96	13	3
Evening and other Meetings	55	3	8
Examiners, Boards of—			
Fees to Examiners—England and Wales	1,669	10	0
Scotland	431	14	0
Fees to Superintendents, Preliminary Examination—			
England and Wales	207	18	0
Scotland	33	1	6
Hire of Rooms for conducting Preliminary Examination—			
England and Wales	67	16	10
Scotland	6	18	0

EXPENDITURE—cont.		£	s.	d.
Travelling Expenses—England and Wales	243	13	6	
Scotland	35	15	10	
Refreshments for Examiners—England and Wales	92	17	11	
Scotland	20	3	10	
Apparatus, Drugs, and Chemicals for Examinations and sundry charges in connection therewith—England and Wales	260	19	5	
Scotland	54	16	9	
Fees to the College of Preeceptors	181	7	0	
Fixtures and Fittings	8	13	3	
Furniture (including Furniture for New Building)	176	12	8	
Grant in aid of Provincial Education (Sheffield)	50	0	0	
House Expenses :—Gas, Water, Coal, Cleaning Materials, &c.	334	19	4	
Journal :—Editor and Sub-Editor's Salaries	750	0	0	
Paper	872	9	6	
Printing	2,172	12	5	
Publisher's Commission	551	17	7	
Contributions and Engraving	332	10	6	
Reporting	77	0	0	
Attending Conference and other Meetings	31	10	0	
Parliamentary Papers and Sundry Charges	35	14	5	
Lectures :—Emeritus Professor of Chemistry and Pharmacy	100	0	0	
Emeritus Professor of Botany and Materia Medica	100	0	0	
Professor of Botany—Endowment of Chair	150	0	0	
Professor of Chemistry—Endowment of Chair	150	0	0	
Teacher of Practical Pharmacy	50	0	0	
Subscription to Royal Botanic Gardens	21	0	0	
Lecturers' Attendants)	61	11	6	
Laboratory :—Professor of Practical Chemistry—Endowment of Chair	150	0	0	
Apparatus, Chemicals, Diagrams, and Specimens for Lecture Classes, Prize Medals, Certificates, &c.	151	7	9	
Printing and Posting Prospectuses	63	7	11	
Law Costs	471	3	8	
Library :—Librarian's Salary	240	0	0	
Purchase and Binding of Books	121	4	8	
Library Association Meeting	10	10	0	
Catalogue	120	2	5	
Museum :—Curator's Salary	350	0	0	
Assistant's Wages	61	3	0	
Specimens, Bottles, and Sundries	123	9	9	
Expenses in Scotland :—Assistant-Secretary—Salary	150	0	0	
Taxes	32	12	10	
Travelling Expenses—Executive Committee	17	17	8	
Cleaning, Service, and Miscellaneous Expenses	140	18	4	
Postage :—General	235	0	0	
Journal (Cost of transmission to Members, Associates, and Apprentices)	722	4	0	
Register, Printing and Publication	161	3	2	
Repairs and Alterations	443	9	5	
Rent, Taxes, Fire Insurance, and Insurance of Plate Glass	541	9	5	
Ground Rent of new premises (Galen Place), six months to Lady Day, 1836	28	5	0	
Returned Subscriptions to Associates	19	8	6	
Stationery, Engraving, Printing, and Office Expenses	312	0	0	
Calendar—Printing and Publication	111	10	10	
Salaries :—Secretary and Registrar	450	0	0	
Clerks and Servants	908	0	8	
Research Laboratory	237	10	0	
Cost of Materials supplied to the Jacob Bell Scholars	10	0	0	
Herbarium and Council Medals	5	5	0	
Sundries	8	18	5	
New Premises, Galen Place—H. & E. Lea, Builders	3,501	1	8	
Architects' Fees	200	0	0	
Surveyor's Fees	4	4	0	
Gratuity to Foreman	5	0	0	
S. Howlett—Dispensing Counters and Fittings	285	0	0	
Law Charges	30	3	0	
Travelling Expenses—Members of Council	421	14	8	
Refreshments for Council	41	9	10	
Balance, December 31, 1838 :—In Treasurer's hands	1,728	3	11	
In Secretary's hands	118	2	4	
In Honorary Treasurer's hands (Scotland)	36	3	1	
Total	£22,776	7	2	

The Benevolent Fund account shows an income from subscriptions of 1,500*l.* 3*s.* 6*d.*, and from investments 876*l.* 17*s.* 6*d.*, together, with balances from the preceding year, 2,397*l.* 13*s.* 8*d.* Donations amounting to 182*l.* were also received during the year. The payments to 51 annuit-

ants amounted to 1,705*l.* Casual grants to the amount of 375*l.* were made, exclusive of further grants of 20*l.* for special purposes. The only charge upon the fund is for printing, stationery, and postage, 48*l.* 4*s.* 7*d.*, so that the balance on this account was 249*l.* 9*s.* 1*d.*; but a footnote explains that 443*l.* 15*s.* had to be paid to the annuitants on January 9, 1839, so that the fund began this year badly.

The investments of the Society are:—In Government stock, 13,000*l.*; in ground-rents, 5,551*l.* 5*s.* 6*d.*; Edinburgh house, 1,931*l.* 10*s.*; Galen Place premises, 10,031*l.* 4*s.* 8*d.*; total, 30,514*l.* 0*s.* 2*d.* The Benevolent Fund investments, amounting to 23,238*l.* 0*s.* 4*d.*, are—with the exception of consols, 2,550*l.*—invested in ground-rents. The other investments of the Society, amounting to 3,790*l.*, are for special purposes.

THE NEW HONORARY MEMBERS OF THE PHARMACEUTICAL SOCIETY.

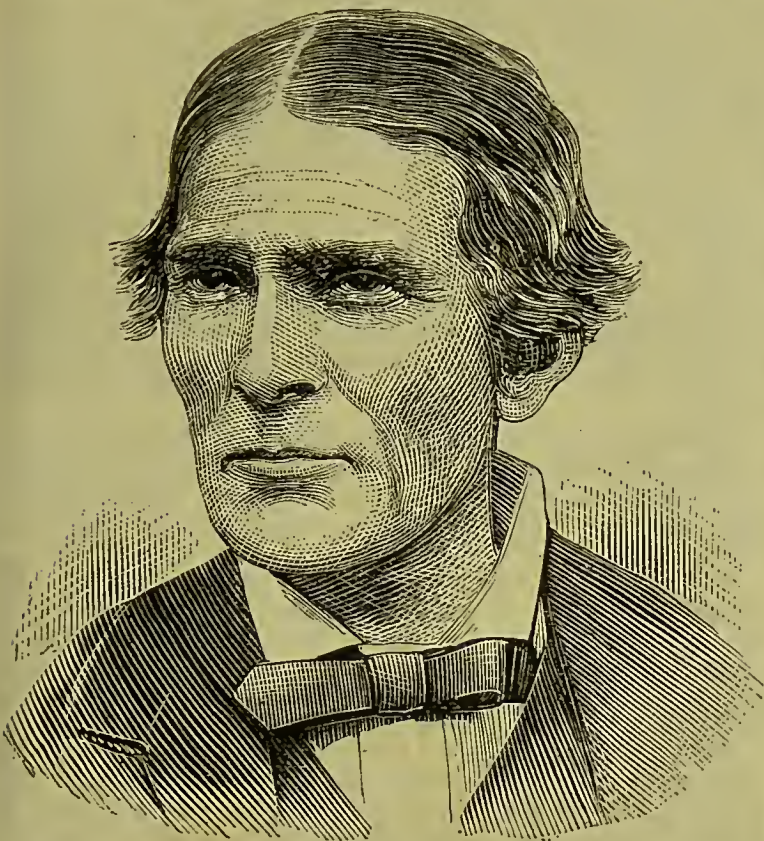
WILLIAM CROOKES, F.R.S., who has just completed his term of office as President of the Chemical Society, is one of the most distinguished English chemists now living, and he



ranks equally high amongst physicists. We have on a former occasion (March 16, 1838) spoken fully of Mr. Crookes's life work, and it is unnecessary to repeat the facts which were then stated. Mr. Crookes has received fresh honours since then, the most noteworthy being the Davy Medal, which the Royal Society has awarded to him for his researches on the behaviour of substances under the influence of the electric discharge in a high vacuum, with especial reference to their spectroscopic reactions. This is the department of science to which the new honorary member of the Pharmaceutical Society has of late years devoted most attention.

JOHN SCOTT BURDON-SANDERSON, M.A., M.D., LL.D., F.R.S. (L. and E.), F.R.C.P., &c., at present acts as Waynflete professor of physiology in the Oxford University, and was formerly Jodrell professor of the same subject at University College, London. He is a most distinguished physiologist—the greatest, said Mr. Carteighe on Wednesday, now living. He began to distinguish himself early, having received in 1851 a gold medal for the thesis which he presented to his alma mater, the Edinburgh University, for his doctorate degree in medicine. It is from this source that he also received the honorary degree in laws in 1875. Dr. Burdon-Sanderson has at different times been commissioned by the medical depart-

ment of the Privy Council to investigate subjects relating to public health, and his reports on diphtheria and other contagious febrile affections are considered to be of



great value. He is the author or editor of a few textbooks, and of many papers on his special subject. Professor Dunstan is related to him by marriage.

Personalities.

MR. J. H. HOPPER has purchased the business of Mr. J. S. Loxton, 295 Romford Road, Forest Gate, E.

MR. MATTHEW LAXON, late of Cambridge, has purchased a business at Market Place, Faversham, Kent.

MR. JAMES HADFIELD, chemist and druggist, has been elected chairman of the Rochdale Board of Guardians.

MR. T. EVANS, of Commercial Street, Pembroke Dock, has opened a branch business at 50 Dimond Street in the same town.

MR. L. J. HUTCHINGS has succeeded to the business for many years carried on by Mr. Throwall, Fitzroy Street, Cambridge.

MR. SAMUEL LAWRENCE, chemist, of Oban, is opening a branch establishment at Taynult, a small village twelve miles from Oban.

MR. J. STRAUGHTON, wholesale druggist, Cockermouth, who for several years has been vice-chairman of the School Board, was at the last annual meeting unanimously elected chairman of the Local Board of Health.

MARY PONSFORD GOULD, daughter of the late Mr. Robert G. Gould, chemist, Andover, was on Saturday last one of the successful candidates for the vacancies of the Masonic School for Girls, receiving 1,771 votes.

MESSRS. HASSALL & Co., King's Cross, London, ask us to make it clear that they have no connection with the Messrs. Hassall & Co., of St. Ann Street, Manchester, whose advertisements of a certain medicated wine have involved them in an action with Messrs. Coleman & Co., of Norwich.

THE following chemists and druggists were elected at the Manchester Easter vestries:—For St. Michael's Ward, Mr. J. Gilberts, Oldham Road, warden; for St. George's, Mr. Chas. Campbell, Rochdale Road, sidesman; for St. Oswald's, Mr. Thomas Burn, 446-8 Rochdale Road, for the eleventh year warden for St. James's.

MR. BENJAMIN ROBINSON, of Pendleton, Manchester, who is already town councillor and chairman of the Pendleton District Finance Committee, has now been elected chairman of the Salford Board of Guardians, for which union he has been a guardian about ten years, and has during that time held the office of chairman to the Infirmary Committee (Hope Hospital) three years.

ON April 27 Mr. R. J. Opwyrd, editor of the *Pharmaceutisch Weekblad*, the principal Dutch pharmaceutical journal, celebrated the twenty-fifth anniversary of the existence of the journal, with which he has been connected from the commencement of its existence. Mr. Van Loddon Hulsebosch, apotheker, of Amsterdam, will in future act as co-editor of the journal. A few days before the anniversary Mr. Opwyrd had the misfortune to lose his wife.

WE have pleasure in publishing a vigorous election address from Mr. Marshall Leigh, of Brighton. Mr. Leigh expresses himself very definitely as not in favour of the Council's darling Curriculum Bill, and we gather that he would aim to make the work of the Council more directly in accord with the requirements of pharmacists as tradesmen. Mr. Leigh is a retail chemist, with an environment of competition as severe as any prevailing in the country, and it is men thus personally concerned that ought to represent the trade officially.

CONSIDERABLE interest exists in Brighton, writes our correspondent, with regard to the forthcoming election of candidates on the Pharmaceutical Council, by reason of the retirement of Mr. W. D. Savage and the nomination of Mr. Marshall Leigh. The former gentleman is widely known and highly respected in the town, and is a justice of the peace. He has been identified with the Pharmaceutical Society for a period of forty-eight years, for twenty-eight of which he has been a member of the Council, having been elected consecutively at each election; and this year he has withdrawn his name from nomination. Mr. Savage is also president of the local association of pharmacy. Mr. Marshall Leigh, although a much younger member of the profession, is also well known in the town and county, being the secretary of the local association, which office he has held for nine years. In 1878 he passed his Major examination as a pharmaceutical chemist, taking in 1879 the Society's silver medal. At the present time Mr. Leigh has four establishments going in Brighton, consequently he is well acquainted with the requirements of the retail trade. Latterly he has been teaching practical chemistry to young students. Chiefly in connection with this, it is thought very desirable to have him on the Council.

Trade Notes.

WE have received a new catalogue from Messrs. Seabury & Johnson, 46 Jewin Street, E.C., in which useful details concerning their plaisters, surgical dressings, hydronaphthol and its preparations, and various sundries are given clearly and concisely.

MESSRS. HERTZ & COLLINGWOOD have been appointed agents for the Franz Joseph Hungarian bitter-water. According to Professor Attfield's report this water is the most strongly aperient of any of the Buda waters on the market, and is, therefore, more effective in small doses than others.

THE FACSIMILE APPARATUS COMPANY, of 79A Gracechurch Street, E.C., have much improved their already very convenient letter-copying process by an alteration in the pen or stylus by which the stencil paper is written. The new pen can be held and used like an ordinary pen, and we are assured that as many as 2,000 copies of a letter can be taken from one stencil. The apparatus is both cheap and effective.

MESSRS. A. WILKINSON & SONS, of 37 Canning Place, Liverpool, send us a packet of the compressed English hops which they are selling through chemists. These are put up in 1-lb. and $\frac{1}{2}$ -lb. packages. The sample before us is of fine quality, and in this form the aromatic properties are retained for a considerable time. They are recommended for making hop-bitters, for home brewing, and for hop-pillows. The firm are now sending out an effective show-card in colours for chemists' display.

WHAT IS SULPHONAL?

A STEP TOWARDS MACBETH'S "SWEET OBLIVIOUS ANTIDOTE."

"COME, Mr. Alchemist! Canst thou not minister to a mind diseased, pluck from the memory a rooted sorrow, raze out the written troubles of the brain, and with some sweet oblivious antidote cleanse the stuff'd bosom of that perilous stuff which weighs upon the heart?" It was a representative of the *Pall Mall Gazette* who addressed Macbeth's question to a member of the firm of manufacturing chemists which is introducing to England the new German drug which is reported to be doing so much for Baron Huddleston. [Messrs. May & Baker are referred to.]

"Certainly I can," returned Mr. Blenkinsop, "if all is true that the experimenters claim for sulphonol. Here is a report by the medical superintendent of the Duhlin asylum of his experiments with the new hypnotic on demented persons."

"What!" exclaimed our representative, who was not well posted in the developments of science subsequent to the "Anatomy of Melancholy," and the "Religio Medici," "then is old Burton right in his pretensions to the expurgation of madness? 'Inveterate melancholia,' says he (Anat. Mel. Partition 2, sec. 1, memb. 1, subsec. 1), 'howsoever much it may seem to be a continue inexorable disease, hard to be cured, accompanying them to their graves for the most part, as Montanus observes, yet many times it may be helped, even that which is most violent, or at least, according to the same author, *certe minus afficietur*.' Do the discoverers of sulphonol really claim to cure lunatics, to cast out devils? Is it the real hellebore?"

"Not quite that," quoth the man of medicines, smiling. "But they do say it relieves the nervous tension, which is often all the mischief, and simply and naturally procures Nature's restorative, sleep."

"Exactly," returned the disciple of Burton. "As the philosopher lays down in the fifth subsection, first member, of the fifth section of his second Partition, 'Waking, by reason of their continual fears, sorrows, dry brains, is a symptom that much crucifies melancholy men, and must therefore be speedily helped, and sleep by all means procured, which sometimes is a sufficient remedy of itself without any physic.' And he suggests henbane, nightshade, poppy, and other opiate simples for superinducing this medicinal sleep."

"But sulphonol, as we explained in our letter of correction, is not an opiate. It is free from the manifold objections to narcotic drugs. Narcotics intoxicate and stupefy; hypnotics produce euphoria in the nervous system (make it comfortable, you know—*eu* and *phero*), and sleep, a relatively natural sleep, follows as a matter of course. So, at least, I read the descriptions of Professor Kast and his clinical lieutenants."

"No, no, go not to Lethe, neither twist wolf's-hane, tight-rooted, for its poisonous wine, nor suffer thy pale forehead to be kissed by nightshade, ruby grape of Proserpine"—Kast is at one with Keats, it would seem, in discouraging all the family of hasheesh. But tell me, what is this sulphonol? It isn't coal-tar, you say, like everything else; what is it then?"

"Sulphonol is obtained from the combination of ethyl mercaptan and acetone by the process of oxidation. Its full name is diethylsulphon—dimethylmethan, and its chemical formula is $C_7H_{16}S_2O_4$ (Baumann)."

"Oh, it is, is it?" exclaimed our representative; "that is very interesting. But perhaps you can tell me in plain English what it is that makes all the difference between $C_7H_{16}S_2O_4$ and everything else, apparently, which people take to go to sleep?"

"Well, I'm not a doctor," demurred the practical man. "You are taking me out of my depth. I cannot explain to you the various actions on the nervous system."

However, with the aid of some pamphlets and monographs, Mr. Blenkinsop obligingly launched into the mysterious domain of theoretical explanation, to an effect which may for the "general reader" be boiled down by the "general journalist" into something like this: Chloral and the narcotics act by fuddling the head; sulphonol begins at the

other end, soothing the nerves, and playing on the brain only indirectly. Hence it doesn't leave behind it headache and depression, and produces only a dreamless sleep, pretty natural in its duration and character. For theory Mr. Blenkinsop will not vouch, but this practical fact he did lay stress on; that whereas morphia, chloral, and such-like drugs are dangerous to use where (as so often in cases of nervous sleeplessness) the heart is weak, owing to their "secondary effect on the vascular system," sulphonol neither makes the heart thump nor the blood swell, and in fact is free from any injurious secondary effect at all. This, of course, must be taken *cum grano*. The drug is new, and the experiments do not cover a very wide area. In two of the asylum cases, it seems, there is a record of some muscular depression as sequel to a dose. However, the record as a whole seems wonderfully good; and according to the experimenters, the dose need not be increased, nor does it produce the yearning for more which makes morphia so dangerous and seductive a drug.

"Here is a dose of sulphonol—15 grains," said Mr. Blenkinsop, producing a little commonplace-looking white powder. "It is smellless and tasteless. I carry doses in my pocket, and offer one to any friend I meet who looks knocked up or worried, to take an hour after dinner. Won't you try it?"

"Thanks," said our representative hastily, "I sleep excellently. I shall be pleased, however, to experiment, say, on our news-editor or the head of the printing department at the moment when a special edition is being run through. If it produces 'euphoria' in their cases I shall believe everything that you have claimed for it."

After this (concludes the representative), as even in these days some seductive mystery clings to the officina of the chemist, I asked to be shown some of the sights of May & Baker's works. So we passed straightway into a land of huge retorts and seething furnaces. I was amused with the sight of an iron weight, which I could not lift, floating buoyantly in a lake of mercury. I choked in the camphor-making sheds, which, when they periodically catch fire, have simply to be left to burn down, and a rare blaze they make. I shuddered at noxious compounds, like corrosive sublimate and nitric acid and other *diableries*, to which vitriol is as mother's milk, were dealt with around me by the hogshead and the hundredweight. I was shown a huge tank of pure ether, and on holding my hand under the tap was given the sensation of clinging to an iceberg at the North Pole. "If this exploded—" said my companion in an awestruck whisper. "What would you do if a fire began to approach it?" I asked. "Fight it till the last—and then it wouldn't be much good running," was the reply. "See, I touch this bell: look out at the yard, and see what happens." Gr—r—r! went an alarm outside: in a moment the yard was thick with hose and helmets, and columns of water shot up sixty feet higher than the tallest chimney-shaft that pricked at the sky. Before I left I was made to grasp the difference between sulphonol and coal-tar "analgesic" with which it was confounded in the *P. M. G.* the other day—namely, phenacetin, a similar white powder, which has a direct action on such pains as neuralgia, and which presumably is a narcotic. The workmen have sworn by phenacetin ever since it brought relief and sleep to one of them, who had hurt his hand with some devil's-broth he was stirring. I went away wondering whether we are really getting any nearer to that philosopher's stone of the physician, that supreme elixir vitæ, which will annihilate the fear of pain by offering as the simple alternative to health passive unconsciousness during disease.

[A correspondent of the same journal correctly points out "that in consequence of the comparatively slow action of this drug it is desirable that the necessary dose, which varies from 15 to 30 grains, should be taken an hour or two before going to bed, and according to his experience the results are more sure if the dose is accompanied by a little whisky or other spirit." He has apparently been reading Mr. Boas' paper on the subject, which we published recently.—ED. C. & D.]

DARKEY CONVALESCENCE.—"I can't swaller dis taffy, mammy, 'deed I can't." Aunt Lucinda: "You jes' eat dat candle, you trifin' nigger. Ain't the doctah chawged me to keep you on a light diet!"

THE MELBOURNE EXHIBITION.

THE following is the report of the jury on "Pharmaceutical Products, Spices, Condiments, and Dye Materials":—

This jury has been divided into three sections, which have dealt respectively with—(1) Crude materials and finished products of pharmacy, &c.; (2) Oils, paints, varnishes, dye substances and preparations, blacking, &c.; (3) Mustard, peppers, pickles, salt, sauces, spices, &c. The number, importance, and variety of exhibits submitted for examination in every section have severely taxed the attention, discrimination, and endurance of the jurors. The method adopted to arrive at a correct decision as to the value of an exhibit has been first to examine it by itself, and then comparatively with exhibits of a like character. This exhaustive mode of judging has necessarily occupied much time, and as the greater portion of the exhibits have been tasted, as well as tested, it can be readily understood how nauseating has been the duty assigned to this jury. It is gratifying to find that the Victorian and Queensland pharmaceutical preparations have been of a highly reliable character, and contrast favourably with those from other countries. In olive oils special mention must be made of the exhibit of Messrs. Plagniol & Sons in the French Court, and also the improved quality of the South Australian olive oils. The large number of nostrums submitted for examination shows how imperfectly their proprietors have appreciated the object of an International Exhibition. Although the awards given to the exhibits show the estimation in which they are held by the jurors, still they consider that special prominence should be given to those exhibits which have been adjudged of unusual excellence, and that they should be honoured with the award of special mention. The following are the awards:—

FIRST ORDER OF MERIT—SPECIAL MENTION.

GREAT BRITAIN.

Langton, Edden, Hicks & Clark, London—Drugs and pharmaceutical products.
T. Whiffen, London—Drugs and pharmaceutical products.
Moss, Rimmington & Co., Selby—Mustard.
John Corbett, Worcester—Salts.
Gridley & Co., London—Isinglass.

FRANCE.

De Plagniol & Sons, Bouches du Rhône—Olive oil.
V. F. Potin, Paris—Mustard, pickles, and tomato sauce.
Chassaing & Co., Paris—Pepsine and pharmaceutical products.

TURKEY.

Andre Icard, Smyrna—Opiums.

BRITISH INDIA.

Oakes & Co., Madras—Curries, peppers, pickles, sauces.

VICTORIA.

J. Bosisto & Co., Richmond—Pharmaceutical products.
Victoria Varnish Company (Limited), South Melbourne—Varnishes.

FIRST ORDER OF MERIT.

GREAT BRITAIN.

Hertz & Collingwood, London—Cod-liver oil.
H. F. Kirby & Co., London—Pharmaceutical preparations.
J. Richardson & Co., Leicester—Pharmaceutical products.
May & Baker, London—Pharmaceutical products.
G. Atkinson & Co., London—Pharmaceutical products.
Blacklock & Macarthur, Tradeston, Glasgow—White lead, paints, oils.
Jensen & Nicholson, London—Colours, oils, varnishes.
F. Hubbuck & Son, London—Oils, paints, varnishes.
Griffiths Bros. & Co., London—Paints.
Alexander Ferguson & Co., Glasgow—Colours, oils, paints, and varnishes.
A. B. Fleming & Co., Edinburgh—Antifriction greases and lubricating oils.
H. C. Stephens, London—Wood stains.
Day & Martin, London and Liverpool—Blackings.
F. Jones & Co.—Silicate cotton.
Crawford & Co., London—Carbon enamel.
J. Walker, Parker & Co., Chester—White lead and colours.
Charles Turner & Son—Colours.
Johnson Bros., Hull—Oils, paints, varnishes.

Price's Patent Candle Company (Limited), London—Oils.
The Droitwich Salt Company (Limited)—Salts.
J. & J. Colman, London—Mustard, blue, &c.
Mellor & Co., Worcester—Worcester sauce.
Keen, Robinson, Belville & Co., London—Mustard and blue.
Holbrook & Co., Birmingham—Pickles, sauces, and vinegar.
Bell Bros. (Limited), Middlesborough—Butter salt.
Grimble & Co., London—Vinegars.
J. S. Fry & Sons, London & Bristol—Cinnamon.

FRANCE.

A. Gascard, Boisguillaume-les-Rouen—Pharmaceutical products.
Haranger & Prevost, Paris—Pharmaceutical products.
C. Cornu, Paris—Gelatin capsules.
L. Blanchard, Paris—Pharmaceutical products (collective).
F. N. Bayard, St. Quentin-Aisne—Pharmaceutical products.
L. Rahard, Blois, Loir-et-Cher—Vinegar.
G. Chalmel, Paris—Varnishes.
A. Besegher, Paris—Varnishes.
G. Hartog & Co., Paris—Oil varnishes.
C. Nicholas, Constantine, Algeria—Olive oil.
F. Tombarel, Grasse, Alpes Maritimes—Olive oil.

GERMANY.

C. F. Asche & Co., Hamburg—Pharmaceutical products.
Dr. Wilemar Schwabe, Leipzig—Homœopathic preparations.
J. Paul Liebe, Dresden—Pharmaceutical preparations.
— Lepp, Dresden—Pickles.
W. Guypers & Stalling, Pieschen, near Dresden—Lubricating oil.
Appolt Bros, Sulzbach, near Saarbrücken—Paris and Parisian blues.
A. Oehlrich & Co., Hamburg—Mineral oil.
Schroeder & Stadelmann, Oberlahnstein-on-Rhine—Colours.
Geo. Egestoeff, Linden, near Hanover—Ultramarines.
Lindenhahn & Giesel, Leipzig-Reudnitz—Colours and volatile oils (collectively).
M. Hoff, Hamburg—Pharmaceutical preparations.

UNITED STATES.

Gordon & Dilworth, New York—Tomato sauce.
Hsley, Doubleday & Co., New York—Bidwell's axle grease and lubricating oils.
J. W. Masury & Co., New York—Paints.
H. M. Johnston, New York—Paints.
Ellwood Cooper, Santa Barbara—Olive oil.
G. Upton, Boston—Liquid glue.

SCANDINAVIA.

F. U. Borthen, Drontheim, Norway—Cod-liver oil.

SEYCHELLES.

The Government, Seychelles—Vanilla, spices, cocoanut oils.

BRITISH NEW GUINEA.

Government—Gums, barks, &c. (collectively).

BELGIUM.

Vieille Montague Co., Cheneé—White zinc paint.

AUSTRIA.

Carl Kronsteiner, Vienna—Colours.

BRITISH INDIA.

R. Gopalkistnamah, Chetty & Sons, Madras—Condiments.

VICTORIA.

H. Stiles & Son, North Fitzroy—Essences and pharmaceutical products.
H. Francis, Melbourne—Pharmaceutical products.
Carrigan & Simpson, Melbourne—Pharmaceutical products.
Felton, Grimwade & Co., Melbourne—Pharmaceutical products.
Council of Agricultural Education, Dookie—Pickled tomatoes and olive oils.
R. Palmer, Clayton's Road, Oakleigh—Pickles, sauces, and catsup.
E. Zoon, Clayton's Road, Oakleigh—Sauces and vinegars.
Australian Asbestos Manufacturing Company (Limited), Melbourne—Asbestos materials.
Hon. J. Balfour, M.L.C., Toorak—Olive oil.
Cumming, Smith & Co., Melbourne—Neatsfoot oil.

NEW SOUTH WALES.

Sydney Meat Preserving Company, Sydney—Neatsfoot and trotter oil.
Technological Museum, Sydney—Gums and resins.

NEW ZEALAND.

— Campbell—Olive oil.
E. Mitchelson & Co., Auckland—Varnishes.
Mrs. J. A. Young, Winchester—Tomato sauce.

QUEENSLAND.

F. M. Bailey, F.L.S., Brisbane—Gums.
Commissioners, Brisbane—Essential and dugong oils.
G. Watkins, Brisbane—Pharmaceutical products.
J. L. Ching & Co., Townsville—Dugong oil.
D. Dewar, Mackay—Dugong oil.

TASMANIA.

Tasmanian Chromes, Paint and Colour Company, Launceston—Paints and colours.

SOUTH AUSTRALIA.

A. & S. Monte, Glanville—Olive oil.
Stefano Alberto—Olive oil.
The Commissioners, Adelaide—Olive oil.
C. J. Hamilton, Jamestown—Tomato sauce.

SECOND ORDER OF MERIT.

GREAT BRITAIN.

Bonders de Rath & Co., London—Artists' colours.
R. I. Clarke, London—Varnishes.
Sir W. A. Rose & Co., London—Greases, oils, paints, and varnishes.
J. Chambers & Co. (Limited), London—Greases, oils, and paints.
Maconochie Brothers, London and Lowestoft—Curries, mustard, pickles, sauce, and vinegar.

FRANCE.

Leon Malet & Delmas, Bouches de Rhone—Olive oil.
J. de Pouzier, Marseilles—Olive oil.

GERMANY.

J. Lewinsohn, Berlin—Gelatin capsules.
Carl Haselhorst, Dresden—Blackings and leather dressings.
W. Leyendecker & Co., Cologne—Colours.

UNITED STATES.

Frazer Lubricant Company, New York—Axle grease.
Valentine & Co., New York—Colours and varnishes.

BRITISH INDIA.

Framjee Nowrajec, Bombay—Pickles and chutney.

AUSTRIA.

F. Richter, Pilsen, Bohemia—Lubricating grease.

VICTORIA.

Andrew Russell, North Fitzroy—Tomato sauce.
C. Kierath, Cornishtown, Lower Indigo—Tomato, chutney, and sauce.
Dya-on & Sons, Collingwood—Tomato sauce.
Anstralian Biscuit Company, West Melbourne—Tomato sauce and pickles.
H. G. Grist & Son, Melbourne—Curry powder.
H. Reed & Co., South Yarra—Vinegar.
C. F. Bates, East Melbourne—Mustard.
Johnson Dunster & Co., Melbourne—Blackening, blue, chutney, curry powder, and sauce (collectively).
A. Fitto, Kensington—Oils: trotter and neatsfoot.

NEW SOUTH WALES.

S. P. Hogg & Co., Sydney—Curry powder.
D. J. Monk, Sydney—Vinegars.
A. Cooper, Golden Grove, Darlington—Pickles.

SOUTH AUSTRALIA.

B. Seppelt, Seppeltsfield, Greenock—Vinegars.
C. Margetts, North Parade, Parkside—Tomato sauce.
G. L. Barnard—Olive oil.
Sir S. Davenport, K.C.M.G., Adelaide—Olive oil.
W. H. Burford & Sons, Adelaide—Olive oil.

NEW ZEALAND.

H. S. Booker, Helensville, Kaipara—Tomato sauce.
Gear Meat Preserving and Freezing Company (Limited), Wellington—Tallow and neatsfoot oil.

TASMANIA.

J. Walden, Launceston—Oils and tallow.

THIRD ORDER OF MERIT.

GREAT BRITAIN.

B. A. Smith, London—Curry and pickles.
W. B. Harrison—Oils and lubricating greases.
G. F. Foden, Ealing, Middlesex—Paints and varnishes.

Aspinall, Aspinall & Co., London—Enamel paints.
Copal Varnish Company (Limited), London—Varnishes, stains, and colours.
Carsons' Paints.

FRANCE.

P. Chavariber, 60 Boul. National, Clichy la Garonne—Blackening.
Bertrand & Sons & Laurens, Berge, Marseilles—Mustard.

GERMANY.

Speck & Co., Leipzig—Colours and essences.
Kast & Ebinger, Feuerbach, Stuttgart—Printers' varnishes.
Frey & Senning, Leipzig—Colours.

UNITED STATES.

B. Moor & Co., Brooklyn—Kalsomine.
-- Woolsey—Kalsomine.
Borne, Scrymger & Co., New York—Mineral and lubricating oils.

HOLLAND.

Dr. A. Haagen, Roermond—Colours.

VICTORIA.

James Hutchens, Carlton—Gluten bread.
Waddell & Co.—Neatsfoot oil.
J. Kitchen & Sons, Melbourne—Oil.
Parsons Brothers & Co., Melbourne—Mustard, spices, peppers, and curry powder.

SOUTH AUSTRALIA.

Thomas Hardy—Olive oil.
W. H. Burford & Sons—Blackening.

FOURTH ORDER OF MERIT, OR HONOURABLE MENTION.

GREAT BRITAIN.

Arnold & Co., London—Capers.
Maconochie Brothers, London and Lowestoft—Baking powder.
G. Hoby & Co., London—Blackening and dubbin.
J. Pickering & Sons, Sheffield—Harness blackening.
J. B. Freeman & Co., London—White lead.
Eliza Turk—Mirrorine.
Morris & Griffin, Wolverhampton—Blackings.
J. T. Dales—Dubbin and leather revivers.

GERMANY.

Theodore Reisert, Augsburg—Grease lubricators.
Berger & Wirth, Leipzig—Colours.

AUSTRIA-HUNGARY.

Franz Wilhelm & Co., Vienna—Pharmaceutical products.

BRITISH INDIA.

India Traders' Company (Limited)—Spices.
Manockjee, Poonjiajee & Sons, Bombay—Condiments.

VICTORIA.

M. Johnson, St. Kilda—Pharmaceutical preparations.
H. W. Potts, Melbourne—Plaster spreading machine.
Andrew Holt, Melbourne—Pickles.
Maskiell & Bland, Hotham—Pickles.
Stewart, Dodsworth & Co., Wangaratta—Vinegars and sauces.
J. K. Blogg & Co., Melbourne—Vinegars, sauces, and peppers.
Parsons Brothers & Co., Melbourne—Baking powder.
W. Wilson, Brunswick—Baking powder.
G. Peacock & Sons (Limited), Melbourne—Tomato sauce and pickles.
H. G. Grist & Son, Melbourne—Baking powder.
R. Harper & Co., Melbourne—Baking powder.
C. Kingsland & Sons, Melbourne—Baking powder.
A. Galli & Co., Melbourne—Vinegars.
J. F. McKenzie & Co., Melbourne—Mustard, spices, baking and curry powders (collectively).
Lewis & Whitty, Melbourne—Baking and curry powders and blackening.
A. H. Shaw & Co., Melbourne—Vinegar, blackening, and baking powder.
J. H. Cromarty & Co., Melbourne—Baking powder.
Lloyd Brothers & Maginnis, Melbourne—Oils.
J. K. Blogg & Co., Melbourne—Blackening.

NEW SOUTH WALES.

Colman & Son, Cootamundra—Eucalyptus oil.
T. B. Melhuish, Sydney—Pharmaceutical products.
S. P. Hogg & Co., Sydney—Baking powder.
Barrett & Co., Sydney—Vinegars.
A. M. Hunt & Co., Goulburn—Baking powder.

SOUTH AUSTRALIA.

M. Holtze—Oils.

NEW ZEALAND.

E. Gibson, Hokitika—Sanitary waters.

W. Innes, Otago—Cod-liver oil.

S. Kilpatrick & Co., Nelson—Pickles.

Mrs. Bradley, Canterbury—Sauces and pickles.

J. Hatch, Invercargill—Sea-elephant oil.

News.

THE largest quantity of tea ever shipped from Ceylon in one single month was exported in March last, when 3,522,929 lbs. left the island.

A FIRE doing 1,200% worth of injury occurred last week on the premises occupied by Mr. Frederick W. Pittuck, chemist, 35 Carr Street, Hebburn. The loss is only partially covered by insurance.

THE London Section of the Society of Chemical Industry will meet on Monday evening, when Mr. C. Napier Hake will read a paper on "Explosives."

FREDERICK COOKE, described as a chemist, of Nottingham, aged 30, jumped from the parapet of the tunnel at Nottingham to the road below, a distance of 40 feet, and sustained shocking injuries to the lower limbs. The right leg was amputated at the hip joint, but he did not long survive the operation. There is no chemist of that name on the register.

REMARKABLE EXPLOSION.—On Monday morning a singular explosion occurred at Messrs. Chards' oil-cake mills, Bristol. A workman entered the mixing chamber to attend to the machinery and left the gas burning inside. As soon as the revolving fan was set in motion the air filled with particles of inflammable meal, and on coming in contact with the gas exploded, blowing off the roof, throwing down a wall, and injuring a workman, whose life is despaired of.

FARADAY LECTURE.—In connection with this lecture, which is to be delivered under the auspices of the Chemical Society by Professor Mendeleeff, in the theatre of the Royal Institution, Albemarle Street, W., on June 4, there will be a dinner of the fellows in the Holborn Restaurant on the evening following. The President and Miss Russell have also issued cards of invitation to the fellows to meet Professor Mendeleeff at a conversazione in the Grosvenor Gallery on Friday, June 7.

CARBOLIC-ACID POISONING.—A case of poisoning by carbolic acid occurred at Fence Houses, Durham, on Saturday last. A man named George Johnson, aged 54 years, was in bed very ill with typhoid fever, and the doctor had supplied Mrs. Johnson with a bottle of carbolic acid to disinfect the room. The bottle was placed under the bed, and during the temporary absence of his wife the sick man appears to have got out of bed raging with thirst, got hold of the bottle, and drunk the whole of the contents. Medical assistance was immediately sent for, but was of no avail, and the man died in a few hours.

ROYAL INSTITUTION.—At the meeting on Wednesday the annual report of the committee of visitors for the year 1888, testifying to the continued prosperity and efficient management of the Institution, was read and adopted. The real and funded property now amounts to above 81,000%, entirely derived from the contributions and donations of the members. The Duke of Northumberland was re-elected president, and amongst the managers appointed are William Crookes, Esq., F.R.S., and William Chandler Roberts-Austen, Esq., F.R.S. The new visitors include Ludwig Mond, Esq., F.C.S., Professor T. E. Thorpe, and Thomas Tyrer, Esq., F.C.S.

HE KNOWS THEM BOTH.—Mr. Daniel Hooper, B.A., M.B., of Trinity Square, Southwark, physician to the Surrey Dispensary, writes as follows to the *Daily News*:—"SIR,—In a recent article you say: 'The practice of dispensers is, it seems, to issue no stronger caution than "not to be taken" with many mixtures containing the deadliest ingredients.'

This may be true of dispensers to those medical practitioners who make up and send out their own medicines, as such dispensers are often unqualified; but it is not true of dispensing chemists, or of dispensers to public institutions, who are thoroughly qualified by the severe examinations of the Pharmaceutical Society, and who invariably use coloured labels and coloured and grooved bottles for poisonous liquids. All private medical practitioners should (as many do) get their medicines, &c., made up by chemists. I send you specimens of the labels used by chemists and by the dispensers at hospitals and public institutions."

IMPROVING THE OCCASION.—Messrs. May & Baker, of Battersea, are to be complimented on an exceptional skill in the art of advertising their chemicals. A paragraph had appeared in the *Pall Mall Gazette* referring to the treatment of Baron Huddleston by sulphonal. This gave Messrs. May & Baker the opportunity of writing to the paper as follows:—"Our attention has been directed to a paragraph in your issue of yesterday relating to the serious illness of Mr. Baron Huddleston, and the great relief experienced from the use of sulphonal. Our object in writing is to correct an error you have inadvertently made in describing sulphonal as an 'opiate,' and as 'one of the many products of coal-tar.' Sulphonal is a 'hypnotic,' which is free from the incalculable dangers of the 'narcotic' remedies, such as the opiates and chloral. It is obtained, not from coal-tar, but from the combination of ethyl mercaptan and acetone, by the process of oxidation. Perhaps you have confused sulphonal with the new drug, 'phenacetin,' which is so extensively taken for neuralgia; this is an analgesic, at the same time being a coal-tar product." The real advertising genius was manifested not so much in the reiteration of the virtues of sulphonal, as in the introduction to the readers of the *Pall Mall* of "the new drug, 'phenacetin,' so extensively taken for neuralgia."

THE DEATH-RATE OF LONDON for 1888 was 18.5 per 1,000. This rate is for "registration London," which almost corresponds with the area represented by the London County Council, and comprises a population of 4,282,921. The death-rate of "greater London," which is co-extensive with the city and metropolitan police districts, and comprises a population of 5,527,886, was 17.8. These figures are better than any previously attained. In the three preceding years (which were themselves better than any former years) the death-rate of "registration London" was 19.8, 19.9, and 19.6 respectively; the present death-rate of 17.8 for "greater London" compares with 19.3 in 1886 and 18.9 in 1887. Less than fifty years ago the annual death-rate of London averaged nearly 25 per thousand. London compares well with foreign cities, which range as follows:—Stockholm 19.8, Philadelphia 20.1, Berlin 20.3, Dresden 20.7, Brussels 21.1, Paris 22.6, Vienna 25.1, Rome 25.2, Calcutta 25.9, New York 26.3, Bombay 29.0, Buda-Pesth 31.6, St. Petersburg 34.6, Moscow 36.8, Madras 37.8, Alexandria 38.8, Cairo 48.9. Among the large cities in the United Kingdom Brighton stands the best with a death-rate of 16.1, Derby 16.3, Hull 16.4, and Bristol 16.9. Birmingham, Nottingham, Birkenhead, and Bradford are all between 17 and 18. Edinburgh has a death-rate of 18.0, Liverpool 20.3, Sheffield 20.5, Newcastle and Leeds 20.6 each, Glasgow 22.1, Plymouth 22.3, Dublin 25.3, and Manchester 26.1.

THE VACCINATION COMMISSION.—In reply to Mr. Picton in the House of Commons on Monday, Mr. Ritchie, president of the Local Government Board, said the instructions to the Vaccination Commission would be to the following effect:—The Royal Commission is to inquire and report as to (1) the effect of vaccination in reducing the prevalence of, and mortality from, small-pox; (2) what means, other than vaccination, can be used for diminishing the prevalence of small-pox, and how far such means could be relied on in place of vaccination; (3) the objections made to vaccination on the ground of injurious effects alleged to result therefrom, and the nature and extent of any injurious effects which do, in fact, so result; (4) whether any, and, if so, what means should be adopted for preventing or lessening the ill effects, if any, resulting from vaccination, and whether, and, if so, by what means, vaccination with animal vaccine should be further facilitated as a part of public vaccination; (5) whether any alteration should be made in the arrangements and proceedings for securing the performance of vaccination, and in particular in the provisions of the Vaccination Acts with

respect to repeated prosecutions for non-compliance with the law. Mr. Ritchie further stated that the professed information of certain papers to the effect that certain persons had been appointed on the Commission was absolutely unauthorised and absolutely incorrect.

THE PHARMACEUTICAL RESEARCH LABORATORY AND THE ANTI-VIVISECTIONISTS.—The following reference to the charge brought against the Pharmaceutical Council by the Society for the Prevention of Experiments on Animals appears in the May number of *The Zoophilist*, the organ of the Society:—"References have been several times made in *The Zoophilist* to experiments on animals, and even on hospital patients, reported in the *Pharmaceutical Journal and Transactions*, and these alone seemed sufficient to indicate that the authorities at the Pharmaceutical Society were getting bitten with the craving after vivisection, in the guise of scientific research as to the action of drugs. The recent report of the 'Research Committee,' with the names of Professor Michael Foster and Dr. Lauder-Brunton among the signatories, still further confirmed the suspicion. These two gentlemen, having been unsuccessful as participants in the notorious Round Robin, in their endeavour to obtain support for vivisection from the College of Surgeons, seem to have betaken themselves to the Pharmaceutical Society, of which they are hon. members. As we showed a month ago, 'physiological and therapeutical' researches have already been promoted through the medium of the Pharmaceutical Society. These were carried out by three men, two of whom were Professor Cash (now of Aberdeen) and Dr. Lauder-Brunton, who were associated, it will be remembered, in the English experiments of baking animals to death in 1884. The alliance of these persons with the Pharmaceutical Society, and, above all, with a 'Research Committee' there, is so suspicious, and, judging from their antecedents, so certain sooner or later to involve vivisection, that steps have been taken to raise a question on the subject in the pending election of the Council of the Pharmaceutical Society. If nothing more be necessary, it is hoped to at least obtain pledges that no vivisection will be permitted by the Council."

WILLS OF DECEASED CHEMISTS.

Probate of the will, dated January 13, 1889, of the late Mr. Peter Eden, of Pendleton, manufacturing chemist, who died on February 9 last, has been granted to his brother-in-law, Mr. Thomas Bell, of Bournemouth, and Mr. Joseph Smith. The testator bequeaths 2,000*l.* to his niece, Elizabeth Ann Bell, daughter of his late sister Sarah; 2,000*l.* to his nephew James Henshall; 250*l.* each to John, Peter, William, and Monica Henshall, children of his nephew John Henshall. All the residue of his property the testator leaves to his sister, Elizabeth Eden, the value of his personal estate being 14,702*l.*

The will (dated March 14, 1881) of the late Mr. Samuel Hughes, chemist and druggist, of Stourbridge, who died on December 19, 1888, was proved at Worcester District Probate Registry on February 13, by Mr. Joseph Hughes, the deceased's son and executor, Mr. Henry Bishop, the other executor, having renounced. The gross value of the personal estate amounted to 2,829*l.* 4*s.* 7*d.*, and the real to 2,712*l.* 2*s.* 4*d.* The testator bequeaths all his personalty and devises all his real estate equally between his two children, namely, his son Joseph and his daughter Helen Jane, the wife of Henry Bishop, requesting them to keep a home for his sister.

The will (dated April 23, 1867), with nine codicils, of the late Mr. E. Robinson, chemist, of Birmingham, who died on December 16, 1888, was proved at the Birmingham District Probate Registry on January 28, 1889, by Messrs. W. and J. Robinson, the deceased's brothers and executors. The gross value of the personal estate amounted to 15,255*l.* 11*s.* The testator bequeaths 600*l.* between the children of his brother Titus; 200*l.* to his said brother, or his widow if she survives him; 3,300*l.* to his niece Miss Elizabeth Mountains together with his household furniture and effects; and, after leaving several other legacies to various relatives, the testator constitutes his said brothers and executors residuary legatees of his personal as well as of his real estate.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

SUTHERLAND—CALLANDER.—At Inglewood, Dumfries, on April 25, by the Rev. C. McNeil, Free St. George's, John W. Sutherland, pharmaceutical chemist, to Jane Constance, eldest daughter of John Callander, merchant.

DEATHS.

BARRON.—The wholesale druggists of London will henceforth miss from their midst one of the longest-known and most respected of their associates. Mr. Frederick Barron, head of the firm of Barron, Squire & Co., of Bush Lane, Cannon Street, died of pleurisy on Tuesday, April 30, after a short illness. He was in his eightieth year, and had been at business up till Saturday, April 6, though for some time past his strength had evidently been failing. Mr. Frederick Barron was almost, if not quite, the oldest of the London wholesale druggists attending 'Change or the drug sales. The one or two wholesale men who were his seniors have long since left the conduct of the businesses in which they were interested to younger men. Mr. Barron's father founded the firm of Barron, Harvey & Co. some eighty years ago, and Frederick Barron and his elder brother Charles both became partners in that house. Frederick had previously been apprenticed to Mr. Baxter, of Bromley, a retail chemist, in order to learn the business, and the knowledge thus acquired undoubtedly served him well in after years. After many years of association, Frederick Barron left the Giltspur Street house, and became associated with the firm then carrying on business as Drew, Hayward & Co., and the style of which was then changed to Drew, Hayward & Barron, and subsequently to Barron, Squire & Co. He travelled over a great part of the country for both houses, and was therefore widely known among country chemists. It was understood that he left his old firm because his capital was larger than could be profitably employed in that business. Shortly before his death, he and his partner had arranged the transfer of their business to Messrs. Barron, Harveys & Co. For some years he was one of the auditors of the Pharmaceutical Society, and always took an interest in its concerns. The news of his death, when circulated in the City on Wednesday, called forth universal expressions of respect and regret.

BRADSHAW.—On April 23, at Adlington, Lancashire, after a lingering illness, Mr. John Bradshaw, chemist and druggist. Aged 37. Mr. Bradshaw was well known as a Freemason, being P.M. of Ellesmere Lodge, and accordingly his funeral was conducted with Masonic honours. The deceased, who was highly esteemed, leaves a widow and two children.

HARVEY.—On April 25, at 16 Hanover Terrace, Ladbroke Square, London, Alexander Harvey, M.D., Emeritus professor of materia medica in the University of Aberdeen. Aged 78. The deceased gentleman, after practising medicine for some years in England and Scotland, was, in 1860, appointed to the chair of materia medica in Aberdeen University. This position he held until he resigned office in 1878, and since then he has lived in retirement in London.

NEW.—On April 15, Mr. Thomas New, chemist and druggist, Gresham, Worcestershire. Aged 72.

PALMER.—On April 18, Mr. Robert Palmer, chemist and druggist, Ovington Square, London. Aged 75.

PURNELL.—On April 14, Mr. Henry Albert Purnell, chemist and druggist, High Street, Cheltenham. Aged 46.

SALE.—On April 30, Mr. T. J. Sale, chemist and druggist, 59 High Street, Lowestoft. Aged 41. Mr. Sale had served on the Lowestoft Town Council, and was prominent in the religious work of the town, being a deacon of a Congregational chapel. He has left a widow and six children.

SUTHERLAND.—On April 25, at 36 Charlotte Street, Leith, Mr. J. J. Sutherland (of Messrs. Smith, Wilson & Sutherland), chemist and druggist. Aged 43.

THOMPSON.—On April 16, at Leeds, Mr. Hamilton Thompson. Over thirty years representative for Messrs. Clarke, Bleasdale, Bell & Co., York.

SHOP-WINDOW CURES.

"IF drugs and physic could but save us mortals from the dreary grave," the Registrar-General's return of mortality would be reduced to *nil*. For, in addition to the swarms of doctors, male and female, in London, licensed to kill or cure, a vaunted remedy for almost every disease flesh is heir to may be bought in nearly every street. Addison said of doctors:—"This body of men may be described like the British army in Cæsar's time. Some of them slay in chariots and some on foot. If the infantry do less execution than the charioteers, it is because they cannot be carried so soon into all the quarters of the town and despatch so much business in so short a time."

But in our days the vendors of "certain cures" do their business much more easily by staying at home, and allowing customers to come to them. They do not even trouble to emulate Cotgrave's poor doctor of physic, Pulsefeel, who was accustomed to harangue the public that he could "clarify your blood, surfeit your cheeks, perfume your skin, tinct your hair, enliven your eye, and heighten your appetite." Doubtless vendors of medicines, patent or not patented, find it a profitable business. For one of the characteristics of the true-born Briton is an innate love of physic. Often the most nauseous is esteemed the best, although it may be admitted that the taste for nasty medicine is rather dying out. "To quack of universal cures" has ever been a facile path to public approbation and fortune. Brown wrote: "Saltimbancos, quacksalvers, and charlatans deceive the vulgar;" and Burton said, "Many poor country vicars, for want of means, are driven to their shifts to turn mountebanks, quacksalvers, and empyricks." Civilisation and progress, instead of leading to a diminution of medicines not recognised in the Pharmacopœia of the Royal College of Physicians, has resulted in an opposite effect. For a number of maladies, or, perhaps, it should be said, names of maladies, have been called into existence unknown to our sturdy forefathers. For instance, we have half-a-dozen new designations for what our great grandmothers would have called a "fit of the spleen." And for every new name which is devised by the ingenuity of nosologists at least half-a-dozen remedies appear with mushroom rapidity. Even the medical journals teem with advertisements of so-called remedies not admitted into the Pharmacopœia. Bromidia, "the hypnotic which does not lock up the secretions"; elixir of cascara, "laxative, palatable, reliable"; pumiline, "for bronchitis, throat and chest affections, fully recognised by over 500 testimonials"; vinolia, "which will relieve the intensest itching from any cause whatever"; liquor cascara suavis, "registered," are a few among many similar articles advertised in a recent medical journal. Now when orthodox medical journals insert advertisements of the kind they might with grace refrain from, as they sometimes do, calling the lay press to account for the insertion of advertisements of patent medicines. For to the lay mind there really does not appear very much difference between the advertisement of medicated bonbons, "protected by Royal letters patent," in a medical journal, and advertisements of a like character in a daily newspaper.

It is, however, of shop-window cures we now discourse. So profitable does this branch of business seem to have become, that it has overflowed its legitimate position in the chemist's and druggist's mart, and invaded the premises of other tradespeople. Every vendor of sweets, and many grocers, seem to find it profitable to have a special medical agent for sale. In a climate such as this, where coughs, colds, throat and chest affections so prevail, all who sell anything in the way of medicines have certain cures for such prevalent maladies. The number of so-called remedies is legion, and consists of pills, syrups, emulsions, mixtures, tinctures, lotions, and potions *ad nauseam*. But there is one called "cough balsam," unblushingly described as the "only known cure for cough, asthma, and consumption." Now as cough may depend upon at least fifty different causes, and as consumption kills thousands annually, this must be a very wonderful medicine indeed, and doctors should hide their diminished heads. It is really very stupid of people to go on coughing when they can procure a remedy for a few pence; and quite unnecessary for asthmatics or consumptives to go to the Riviera in the winter when they have a remedy at home. So say the vendors of chest affection

curcs. The giver of good advice rarely receives his due, otherwise we might say "Don't" to anyone disposed to trust these cures.

Corns and bunions demand a good deal of attention. There are many kinds of corn plasters and several "miraculous cures," which are all "painless, simple, and speedy," and which secure "ease, comfort, and good temper." One proprietor of a miraculous cure is so enthusiastic that he breaks out into doggerel—

If corn or bunion trouble you, of this you may be sure,
That free from pain you soon will be by using —'s cure.

After this the man who merely advertises a corn rubber is nowhere. We were, however, under the impression that corns originated from pressure or friction, and that the only radical cure was removing that pressure or friction after the corn, if very large, had been taken out. Toothache, being so common, has, of course, a number of cures. A sufferer would dare a good deal to appease the hideous throes of toothache, and when plaintively asked, "Why suffer from toothache when you can cure it by using the toothache pencil?" would certainly try this, that, or the other remedy before facing the dentist. But, alas! the dentist's chair is the ultimate fate of the person with an aching tooth, and he may be happy if on leaving the dentist he carries his tooth—in his jaw—along with him. Nervous debility seems almost as responsible as toothache or corns for certain cures. Among the hundreds of medicines devoted to nervous debility there are "best brain tonics," "botanic pick-me-ups," "golden medical discoveries," "damiana wafers," and "syrups" of all kinds. Liver complaints and digestive imperfections are also well supplied. "Candies" and "jubes," *cum multis aliis*, are all very good for liver and digestion—at least so say the proprietors. There is one advertiser who, having announced "remove the cause and the effect will cease," soars boldly above his compeers, and announces "head, stomach, and liver pills"! It is, however, in the domains of surgery that shop-window cures are most pronounced. "Another leg saved!" "Another hand saved!" "Another toe saved!" by a certain ointment and pills is boldly announced. If all is correctly stated with reference to this new ointment and pills, Professor Holloway is outdone. Cancers are exhibited, diseased bone is shown, and corns are produced, all cured by this wonderful ointment. Bills are also distributed purporting to be the history of cures. One begins, "A boy threw a stone and hit him on the finger over six years ago." The remainder of the account may be transferred into, "Affliction sore long time he bore. physicians were in vain," until he was cured by the pills and ointment. Now this was evidently a case of scrofulous disease of the bones, always most tedious, and recovery *post* is not *propter*. We close the list by mentioning first "Oriental pills." Why they are called Oriental pills we do not know, and what they are for we cannot ascertain. The name is curious, for pills in the East, unless introduced by Europeans, are as rare as snakes in Iceland. And, secondly, a cure for chilblains called "Chimethloplastron"! What it means we do not know. And we do not take to it—for the word does not come trippingly from the tongue like the blessed Mesopotamia.

It has been said that faith in the doctor is half the battle. Shop-window cures, however, require more than faith; they demand credulity. Nothing catches a man more than a pretended confidence; and of this among vendors of medicines, patent or not patented, there is no lack. It is astonishing how one is able to persuade oneself into a belief in accordance with one's wishes. Barnum's definition of a humbug was "a man who gives you your money's worth, but induces you to deal with him by some plausible tale connected with his goods." Shakespeare asked, "Can'st thou not cleanse the stuffed bosom of that perilous stuff which bears upon the heart?" This is not to be done by nostrums, and not always by doctors. Notwithstanding the vigorous declarations of vendors of nostrums, they do not appear quite sure of themselves. For the names of eminent medical men are freely used—among others, those of Brodie, Blundell, Jenner, Clark. This recalls to mind an anecdote of the Duke of Wellington and Dr. Locock. Meeting one day, the Duke said, "Confound you, Locock! I've almost poisoned myself by taking your pulmonic wafers!" "Ah!" answered Locock, "and I have lamed myself by wearing Wellington boots!"—*Globe*.

TRADE "SANITAS" MARK.

DISINFECTANTS

(FLUIDS, POWDER, SOAPS),
NON-POISONOUS, PLEASANT, AND BEST
Gold Medals, Calcutta 1884, Paris 1885, Antwerp 1886, Ostend 1888.

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Particulars sent on application to

THE "SANITAS" COMPANY, LIMITED,
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SHOW CARDS, 24×17 or 17×12,
Free to any Address.



See First Page, facing inside of front of Cover, in this
Issue for latest particulars.

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Unsurpassed in appearance and effect, 9d. per lb.,

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In Jars (free), ½ lb. 2s. 3d.; 1 lb. 4s. 3d. net.

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J. E. Tottenham, writes:—"Cucumber Paste to hand; very pleased with
result; nicely scented and very little trouble to make."

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mode of putting it up a great boon to chemists in a small way of business."



*Noakes' Tins
for Druggists' use.*

See Illustrated Adver-
tisement in this issue,
page 55 (bottom folio).

THE DIAMOND MARK

To secure the best Hungarian Aperient Water,

DEMAND THE DIAMOND MARK

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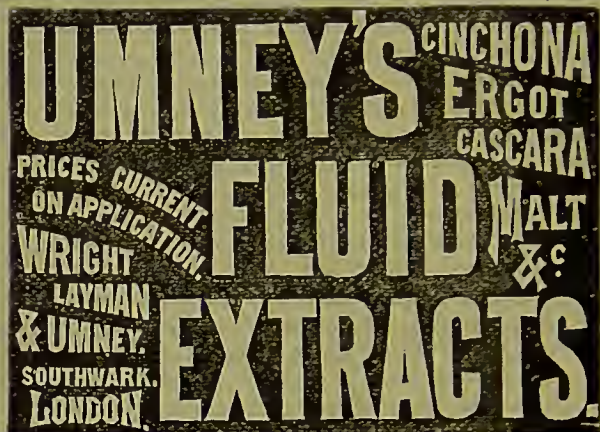
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[1]

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FARRINGTON ROAD, LONDON, E.C.

PURE CRUSHED LINSEED IS NOW 17/- cwt. CARRIAGE PAID

TO ANY RAILWAY STATION IN ENGLAND, AND HALF TO
STATIONS IN SCOTLAND, IRELAND, AND WALES.

STERN'S PUMILINE

ESSENCE, EXTRACT,
JUJUBES, SOAP,
PLASTER (St. Dalmas).

11 BILLITER SQUARE, LONDON, E.C.

*Fletcher's
Concentrated Liquors*

See DIARY, 1889,
Pages 17 and 18.

EDITORIAL NOTES.

THE ACCOUNTS OF THE PHARMACEUTICAL SOCIETY.

A SOCIETY which can boast of nearly 60,000% of capital
invested in its various enterprises is by no means an insig-
nificant body, and might in all fairness be considered rich.
The Pharmaceutical Society is in this position, but we
question if the members ought to be congratulated in this
sense on the financial statement which is submitted to them

to-day, and which will be found in another column. Affluence depends as much on expenditure as on revenue, and no one can be called rich who cannot make both ends meet. Shearing this statement of its balances, returned money, and building charges, we find that the income during 1888 was 16,785*l.* 18*s.* 5*d.*, and the expenditure 16,849*l.* 0*s.* 8*d.*, or 64*l.* 2*s.* 3*d.* deficiency. This is precisely the position which we predicted in May last, and it has been coming on the Society for some years. In 1881, the year before Mr. Carteighe's presidency began, the Council, with an income of 15,397*l.* 12*s.* 5*d.*, or 1,388*l.* 6*s.* less than it is now, succeeded in paying its way and saving 1,138*l.* 13*s.* 4*d.* We do not here discuss whether the money has been spent to the advantage of the members or not. The more important business of the Society is to spend its money, not to save it; but the figures are a contribution to the appreciation of Mr. Carteighe's services to the Society which cannot be ignored.

As compared with 1887, the receipts during 1888 are in some respects more favourable. The total income is about 200*l.* better—16,584*l.* 18*s.* 7*d.*, as compared with 16,785*l.* 18*s.* 5*d.* A comparison of the accounts for the two years will show that the increase is principally due to examination fees, which are 108*l.* better, and journal receipts, 329*l.* 16*s.* 11*d.* better; though this improvement in the latter item does not make the publishing business commercially a profit department of the Society's labours. There was a falling-off in 1888 of 96*l.* 1*s.* in annual subscriptions, and less interest by 188*l.* 12*s.* 9*d.* was received from invested funds. At present there seems to be little hope of increase in the Society's receipts; interest and subscriptions are diminishing, and examination fees have in all probability reached the high-water mark. These are the real sources of income, so that an improved financial position must depend almost solely upon decrease of expenditure. The year 1888 shows a considerable increase of expenditure over 1887. How this has arisen, and how saving may be effected, are shown in the following statement, which indicates reductions and increase of expenditure in the stock items when the 1888 accounts are compared with those of the previous year:—

REDUCTIONS.				INCREASE.			
			£				£
Conversazione, &c.	..	..	34	Examinations	..	..	410
Fixtures	..	..	50	Furniture	..	..	172
Law Costs	..	..	71	House Expenses	..	..	79
Postage	..	..	15	Journal	..	..	83
Repairs	..	..	103	School Charges	..	..	288
				Library Catalogue	..	..	120
				Museum	..	..	14
				N.B. Branch	..	..	15
				Rent, &c.	..	..	76
				Research	..	..	157

All the figures on the left-hand side are accidental—that is to say, next year or in the year following they may be transferred to the right-hand side, and the same applies inversely to furniture, journal, library, museum, and branch expenses; school charges may also decrease a little, but they are not likely to go below last year for a long time to come, and the fact that a new chemical laboratory is to be fitted up will entail an additional expense during the present year. Rent and house expenses are growing items, so also is research; and here we may point out that in the statement 207*l.* 10*s.* only appears for the latter purpose, although 300*l.* was granted, and the report of the Research Committee stated that 285*l.* was spent. The reason of this is that 92*l.* 10*s.* of the grant was paid in January of this year. It is evident from the foregoing that the Society has little chance of decreasing its expenditure at present, and as there is as little hope of increasing the receipts from subscriptions,

and a certainty of decrease in the investments, it would seem that the embarrassing deficit is not temporary by any means. Moreover, it should not be forgotten that the further extension of the premises will necessitate increased charges for maintenance, ground-rent, and taxes, while fittings and furniture for them will have to be provided out of capital. All this will tend towards the establishment of a chronic financial tightness in the affairs of the Society, which must go far to paralyse all the possible good intentions of future Councils. Mr. Carteighe has now served as president for seven consecutive years, and has reached the limit beyond which no previous president has passed. Whether he will be re-elected or not is a matter upon which it is yet too soon to speak. It is an open secret that his colleagues for some years back have re-elected him in order to give him the opportunity of completing the schemes which he has originated. The greatest of these—the building scheme—is not yet finished; his legislative and other political policies, brilliant as they have been, have come to nothing; and the Society is, financially, going back rapidly, the steady annual surplus of over 1,000*l.* having been converted in the course of seven years into a deficit. Mr. Carteighe is not wholly responsible for this, but as the leader of a party it is his misfortune to bear the opprobrium, and it is not too soon to ask the members of the Society to show the Council by their votes that they desire a change of policy, if not of presidents.

THE DRUG TRADE AND THE RAILWAY RATES.

THE sub-committees which were appointed some time ago, on the initiative of the chemical section of the London Chamber of Commerce, to investigate the proposed new goods classification and tariff for carriage on railways in so far as they threaten to affect the drug and chemical trades, have now practically completed their work. The reports which were read before the meeting of the trade on Monday reflect in a condensed and crystallised form the essential points of the mass of grievances which the druggists and manufacturing chemists of this country have been able to formulate against the organisations upon which they are compelled, in the main, to depend for the carriage of their goods. We are glad to see that the committees have wisely determined to concentrate their efforts upon the reduction in classification of a few specifically named articles and the liberalising of the clauses relating to small packages and empties, rather than to include in their plan of attack the larger question of terminal charges, which is certain to be assailed by the staple industries of the country more vigorously and more effectually than could have been done by the drug trade. The plan of campaign is now ready, and should be successful on its merits. But funds are wanted to press home the objections of the trade, and to enable the Drug Committee to represent the case of its constituents with the same force and ability with which the railway companies are certain to back up their own proposals. As the question is one which directly affects the whole of the drug trade, and associations in various parts of the country have already shown their sense of its importance by holding meetings and passing resolutions condemning the proposed rates, we trust that chemists will seize the opportunity which is offered to them by the creation of a guarantee fund, and send in their contributions to Mr. W. H. Francis, of 5 Coleman Street, E.C.

The pending discussion before the Board of Trade affords a favourable opportunity, of which advantage will no doubt be taken, to regulate in a definite manner the troublesome question of the transport by rail of mineral acids and other

so-called "dangerous" goods. At present such goods are not recognised at all in the classifications of the railway companies, and this absence of any authorised tariff enables them to levy what is objected to as an extortionate charge upon manufacturing firms, part of whose business lies in the preparation of corrosive and inflammable liquids. Moreover, the business of all wholesale drug houses is injuriously affected by the non-existence of proper regulations for the inclusion of such goods in their consignments of miscellaneous drugs to clients in the country. As it is of course impossible to altogether suppress the traffic in such corrosive liquids, the companies now appear to wink at the inclusion of a small quantity in a drug hamper upon certain onerous conditions. It is a fact that no case of serious injury has been known to occur from the forwarding of such parcels of druggists' goods, while their senders must take all the risk of the consignment, and are called upon to make good any eventual damage to the property of the railway company or that of other firms; and the inference is drawn that the railway companies find this more or less clandestine mode of traffic too profitable a thing to care to suppress it, though they would most probably disclaim all knowledge or responsibility if through some accident an inquiry should become unavoidable.

We believe that there is at present a kind of unwritten law fixing a certain quantity of corrosive or inflammable liquids as the maximum which should be enclosed in an ordinary consignment of general druggists' goods. Some firms will send no larger vessel than a pint bottle; others draw the line at a Corbyn quart; others, again, fix their maximum at a Winchester quart. As regards firms of chemical manufacturers who have to make large consignments of such goods, not only do they have to take all the risk, and are compelled to send their goods to the railway terminus on a fixed day and hour of the week, but the rate of carriage which they have to pay amounts, they say, to five or six times that which would be a reasonable special rate. Such important articles of trade as nitric, hydrochloric, and sulphuric acids, phosphorus, ether, and several others, are included in this category, and it is, therefore, not at all surprising that there should be a pretty general desire among druggists to obtain, through the intervention of the Board of Trade, if need be, a recognised and reasonable settlement of this important question. We have heard it stated that the railway companies themselves are generally anxious to come to an understanding, which they consider unavoidable, before they are compelled by the intervention of a higher authority, but that they are unable to do so owing to a rule which prevents this and certain other questions from being settled unless by the unanimous consent of the railway boards.

THE SURVIVAL OF THE MOST INERT.

WE have lately received from the publisher, Mr. H. K. Lewis, a little volume by Mr. E. A. Ridsdale, in which he graphically theorises, under the title of "Cosmic Evolution," upon the evolution of the elements as we know them, and the creation of compounds inorganic and organic. The subject is a fascinating one, and under Mr. Ridsdale's graceful touch it is made acceptable to readers generally, and to chemical students particularly. Speculations on the origin of our environment can, happily, be made in other subjects than chemistry; to go no further than pharmacy, for example, the chief fact which stands out in "Cosmic Evolution," viz., the survival of the most inert, here also figures largely. Pharmacy as we have it is not a thing which owes its present

existence to an uninterrupted sequence of similar circumstances. There have been periods of exceptional energy, producing fresh environments, and bringing into existence some new constellation (*vulgo*, Society) which would shine brilliantly until another change of environment brought about a complete disintegration. Thus is it that we have in pharmacy one of the most notable examples of "the survival of the most inert," a Society which has survived the periods of exceptional energy without decomposition, without alteration, and without incorporating an appreciable quantity of the energy which it has lived in. Now this is all as natural, young pharmaceutical philosophers tell us, as "cutting" is a natural sequence of the change of trade environment. There may be less flighty explanations, it is true, but we ought always to have respect for the scientific, and for that very reason the assertion that the Pharmaceutical Society is a living example of "the survival of the most inert" should be received with all due respect. Moreover, current opinion is indirectly proving the assertion. It asks, What good is the Pharmaceutical Society? and we reply, It is the most inert, the most unalterable in changing circumstances or environment; you may treat it with strong acids—that is, criticism—and it will not fizz; alkalies will not blacken it more than the dust of years has smudged it; its reactions, like its actions, are hidden in obscurity. So far, in short, as the present environment is concerned this "most inert" of pharmacy is a dead mass which no force yet known to pharmacists can alter. It has survived well-nigh fifty periodical agitations, yeapt the Council elections, but these have never been sufficiently concentrated or potent to transform the old body into a new one.

Now what have we in chemistry? Space—that illimitable something which we cannot define—once held poised in its midst, Mr. Ridsdale tells us, "a huge vaporous fiery ball." That was the condition of things so far as the human mind can grasp it, but we might, if we could, take a step back and say that the vapour was not a fiery ball at one time, that it rather filled space. However, the fiery ball is good enough to start with. What was this fiery ball composed of? Mr. Ridsdale says, and in this he has sound authority with him, that it was primordial matter, something different from the elements as we know them, yet their progenitor. "How the original atom was formed from the formless sameness of primordial matter we cannot tell;" we must suppose that after their formation, "having gravitated together, the atoms, by their continual impact under the high velocities born of enormous distances, generated immense heat." Radiation of heat would necessarily follow, then a period of condensation, again an increase of heat, more radiation, and so on ceaselessly; all of which implies periods of action and reaction, during which "bodies inert to the conditions should be formed, which would survive till the formation of environments with which they were incompatible." In this way Mr. Ridsdale starts his proposition of the survival of the most inert. Keeping to the sequence of elemental creation, it is apparent that the lighter or gaseous elements would be formed first, and these would be most fit to survive the shifting conditions of creation. As we go up the scale of heaviness we meet in the elements with large gaps—greater differences between their atomic weights. Well, it would seem that in the ceaseless process of heat intensification and radiation the molecules became denser, and that as they became denser the difficulties would increase of coalescence into elements, and the slower would evolution proceed. Now it is a fact that chemical bodies are more inert as their atomic weights are heavier. The theory quoted explains this phenomenon, and goes far, moreover, to explain the increasing gaps, and the more lethargic condition of successive members of the groups of

elements arranged according to Newland and Mendeleeff's law. Are our elements all that were created? By no means. We have only received the relics of what were created. Just as molecules of oxygen and hydrogen can now be united to form a new body, so in those creative times molecules of extinct elements may have been indissolubly united. We have to go outside the earth for proof this, and have to depend on the mysterious delicacy of the spectroscope for our evidence; but it is proof, nevertheless. The sun itself is a witness. Each increase of solar activity is followed by the appearance of unknown lines in the spectrum. Thus, at the sun-spot minimum the lines seen are chiefly those of the metals, at the maximum the lines are unknown. At the former period, for example, the iron spectrum is visible; at the maximum it disappears, and we see lines which were not in the spectrum, lines which are unknown to us. Evidently these lines are the spectra of the constituents of iron, and it would seem that the sun is just at that age of evolution when iron is separating out from the cooling mass! We have a parallel proof in the spectra of terrestrial elements under the heat of the electric arc, which are similar to spectra afforded by the sun at a comparatively low solar temperature. Both, it is probable, are the result of elemental dissociation. What is true of the sun holds good for the earth, for with Mercury, Jupiter, Saturn, and the other members of our solar system they formed originally one mass of primordial matter. We shall not attempt at this stage to follow Mr. Ridsdale through the succeeding chapters in which he treats of the organic and general aspects of the origin of our environment. His book is a small one, costing 3s., and is well worth careful study. It deals not only with the elements, but with chemical compounds generally, the endeavour being to show that chemical evolution proceeded till it finally induced an environment wherein favourable forms were matured into life. There is a gap between the inorganic and the organic which the author does not bridge—nobody would expect that; but he gives us some good thoughts on that mysterious force—vital force—which is not recognised in Bloomsbury, but which he here defines as “a force which confers individualism on an aggregation of matter, and holds its constituents together in spite of contrary chemical tendencies.” That may probably satisfy Professor Atfield, and maybe there are grains of comfort for others in the fact that Mr. Ridsdale regards “the survival of the most inert” as another expression for “the survival of the fittest.”

ANTIPYRIN IN FRANCE.

THE undignified protests maintained in French medical and pharmaceutical associations against German-made chemical medicines found expression at a sitting of the Academy of Medicine in Paris on Tuesday. As we have before explained a medical compound cannot be patented in France, but its name can be protected. Thus it happens that French chemists may make antipyrin, but they must sell it under some other name. They do in fact make a similar chemical, and they call it analgesine or sedatine, but it seems as if French physicians cannot be got to prescribe the article under one of these names, but will unpatriotically continue to order antipyrin. In such a case is the pharmacien justified in dispensing the home-made article? May he risk a possible shade of disloyalty to his profession for the sake of the greater end of serving his beloved nation? This question, as we have before reported, came before the Paris Pharmaceutical Society a few months since, but that body sensibly declined to lay down any law on such a controversial point. But on Tuesday last Dr. Dujardin-Beaumetz, as reporter for a committee, consisting of himself, with Drs. Constantiu

Paul, Bourjoin, and Armand Gautier, submitted the conclusions which they had arrived at. Their report dealt of course with such other substances as sulphonal and phenacetin, as well as with antipyrin, for the same considerations apply to all. One would have thought the Committee had a very simple task indeed. The first man they met in the street could have advised them that the way to meet the difficulty and to maintain their natural supremacy would be that they themselves should prescribe analgesine or sedatine when they meant antipyrin; then the pharmacist would not be left in doubt, and the Teuton would reap no benefit. But the Committee did not adopt any such ordinary decision as this. They took legal advice, and, with that assistance, they arrived at the astonishing conclusions which are literally translated as follows: “(1) Conformably with the doctrine separating scientific questions from commercial questions, the physician may in his prescriptions order the medicament under its usual name, and the pharmacist may furnish it [the substance] and designate it in his register under its scientific synonym. (2) The Academy directs the attention of the authorities to the necessity of revising the legislation affecting pharmacy.” The second of these conclusions has no obvious connection with the subject, and the first needs the explanation which the Committee give of it. They are advised by their counsel as follows:—That when a physician desires to prescribe one of these new medicaments, in the title of which there is a German monopoly, he may designate it by the name which constitutes its commercial mark: antipyrin, for example. But if the physician does not further indicate the special article he wants, the pharmacien may supply the substance corresponding, manufactured by X. Y. Z., on condition that he shall make an entry in his prescription register of the chemical name of the substance supplied; that is to say, in the case of antipyrin, dimethyloxyquinizine, in that of sulphonal, diethylsulphondimethylmethane. The Committee's report was adopted by the Academy with one dissentient only, M. Bouchardat fils.

Dispensing as in England. A few weeks ago we called attention to a case of poisoning which happened through a foreign pharmacist dispensing for the eclectic preparation gelsem in the alkaloid gelsemine. Dr. de Thilo, of Lausanne, referring to the case in the *British Medical Journal*, warns English practitioners, in sending prescriptions to their patients residing abroad, not to forget the great difference between the strength of the drugs prepared according to the German and British Pharmacopœias. Unless, he says, the chemist has lived in England, or is in the habit of frequently making up English prescriptions, mistakes are liable to occur. Some time ago a Swiss chemist, with English experience, told Dr. de Thilo that, happening one day to look in on one of his colleagues, he found him busy preparing an English prescription. Something in the preparation having roused his suspicions, he inquired about it, and discovered to his horror that the man had used in his preparation the liq. strychnin. of the German Pharmacopœia, which is far stronger than the English preparation. Another frequent source of error arises from the different systems of measuring which obtain in the two countries. Modern Continental chemists, especially in Switzerland, have all but forgotten the ancient method of weighing and measuring by grains, drachms, &c., and the metric system has taken its place. All this is, of course, worth taking a note of, but we wonder where that Swiss chemist got the formula for liquor strychnin. Ph.G. It is not in the German Pharmacopœia.

LINSEED MEAL.—Dr. E. Eidam has found the residue of castor seeds, a poisonous purgative, in some Continental linseed meal. If used for feeding cattle the results might be serious. The recognition of the fraud is effected by means of low microscope powers, when the characteristic longitudinal marbling of the castor seeds is detected.

THE DRUG TRADE AND THE RAILWAY RATES REVISION.

DISCUSSION ON THE SUB-COMMITTEES' REPORTS.

A MEETING of wholesale druggists, chemical manufacturers, and others interested in the question of railway rates was held at the offices of the London Chamber of Commerce, Eastcheap, E.C., on Monday, April 29, to receive and discuss the reports prepared by the drug and chemical sub-committees appointed at the meeting on March 12 last. Mr. Thomas Tyrer, of the firm of May & Baker, presided: and the following gentlemen were also present:—Arnold Baiss (Baiss Bros. & Co.), Richard Barron (Barron, Harveys & Co.), A. C. Bishop (Kemball, Bishop & Co.), S. B. Boulton (Burt, Boulton & Haywood), J. Elborough, John J. Evans (Evans, Sons & Co., Liverpool), J. F. Fuerst (Fuerst Bros.), W. H. Francis and G. B. Francis (Hearon, Squire & Francis), A. B. Hill (Arthur B. Hill & Co.), Chas. Hodgkinson (Hodgkinson, Treaeher & Clarke), David Howard (Howards & Sons), E. T. James, N. H. Martin (Brady & Martin, Newcastle-on-Tyne), R. Messel, J. Pierre Morson (Morson & Sons), John Moss (John Moss & Co.), Alfred Preston (Thos. Hodgkinson, Prestons & King), Geo. Pugh, John Robbins (John Robbins & Co.), A. Spies (Spies Bros.), J. M. Steel, Chas. Umney (Wright, Layman & Umney), E. A. Webb (Evans, Lescher & Webb), and Stacey (Corbyn, Stacey & Co.).

The CHAIRMAN called upon the Assistant Secretary of the Chamber of Commerce to read the minutes of the last meeting, explaining that the full report of that meeting was extracted from the "excellent report of the proceedings which had appeared in THE CHEMIST AND DRUGGIST of March 16." This was taken as read, and the minutes approved of, whereupon the Chairman said that the present meeting was not merely one of the committees of the chemical and drug trades which had been appointed to investigate the question of the proposed new railway rates, but that all persons interested in this important matter, as bearing upon the trades they represented, had been invited to attend. The committees appointed about six weeks ago had met several times, and had done a great deal of work in sifting out the multitude of details and suggestions placed in their hands by a very large number of firms connected with the drug trade all over the country. The brunt of the work had fallen upon Messrs. W. H. Francis and Chas. Umney—(hear, hear)—and these gentlemen were present there to-day to explain any questions which might arise with reference to the report which had been prepared. An important question which had cropped up during the sittings of the sub-committees was that of the carriage of inflammable and corrosive liquids in parcels of drugs. At present the railway companies winked at the packing of such liquids in drug consignments, but this matter was not arranged on any satisfactory or legal basis, and they would have to consider in how far it would be desirable to have the carriage of such goods expressly regulated, or whether it would be preferable to continue on the present permissive basis. Speaking entirely for himself, he strongly favoured regulation, because he thought that they could make out a strong case in favour of regulating the question in a manner satisfactory to the trade. It could be proved in support of this contention that the total claims for breakage on druggists' consignments was very small indeed, and did not average over one shilling per 100*l.* worth of goods carried, and that, so far as could be traced, not a single case of accident had ever occurred from the carriage of explosive compounds in druggists' goods. He thought it advisable that it should not be able to be laid to the charge of the drug trade that they had shirked the settlement of this serious question. The chairman concluded by asking for the opinion of the meeting as to whether the reports of the sub-committees (copies of which had in the meantime been distributed) should be read *in extenso* or clause by clause, for the purpose of debate. After some conversation the meeting decided in

favour of *in extenso* reading, and the official of the Chamber of Commerce present then read the report, which runs as follows:—

GENERAL OBJECTIONS.

Objections to the Railway Companies' Proposals discussed and agreed upon by the Wholesale Druggists' Sub-Committee of the Chemical Section of the London Chamber of Commerce.

The classification of drugs and chemicals, both as at present and as proposed, is capable of very great improvement, and it is much to be wished that a systematic classification were adopted; without, however, attempting to supply such a classification the committee call attention to the following particulars, which are of great importance:—

Drugs and chemicals in hampers and cases are composed to a large extent of articles in Classes C, 1, 2, 3, 4. In Class C, such as alum, bicarbonate of soda. In Class 1, such as bichromate of potash, pearl ashes, sugar of lead, orange peel. In Class 2, such as borax, carbonate of ammonia, chlorate of potash, nutgalls. In Class 3, such as aniseeds, cream of tartar, vaseline, boracic and oxalic acids. In Class 4, such as citric, tartaric, and carbolic acids, honey, cod-liver and olive oils, medicinal seeds. Drugs and chemicals are packed in hampers, &c., by experienced packers of glass ware, who do nothing else.

Claims for breakage are of rare occurrence, and invariably for small amounts, and they do not when made exceed on the average the proportion of 1*s.* for each 100*l.* worth of goods carried. In comparison with the value, the weight of the consignments is considerable—an average value of the consignments by wholesale druggists being about 70*s.* per cwt. Now as the value of goods in Class 4 is from 40*s.* to 150*s.* per cwt., the advance from Class 4 to Class 5 would be a gross injustice to the druggists. Moreover, the drug trade would be at a great disadvantage as compared with dry-salters, who trade in many articles similarly classified.

Further, it must not be lost sight of, that the druggist's business is unique in requiring that his goods should be consigned so that the odour of one drug shall not in any way be communicable to another; hence it is that the packing of his wares in green glass bottles and earthenware jars is a necessity, and so considerable a proportion do these packages form (which when empty are classed in Classes 1 and 3) that their average weight is at least 25 per cent. of the whole consignment.

EMPTIES.—The business of the druggist necessitates the use of bottles and jars for liquids and solids; these are in the main so different from those used by other trades that they could rarely be sold by the retail druggists for other purposes. It is, therefore, absolutely necessary that every facility for their return to the wholesale druggist be given. The empty returns consist almost entirely of "Dirty glass bottles and earthenware jars." Now "new bottles and earthenware jars" are carried in Classes 1 and 3, therefore dirty bottles, &c., should not be placed in a higher class than Class 2. The injustice of putting empties in Class 5 is further shown by the fact that each consignment of empties never amounts to 560 lbs. in weight, and therefore comes under the head of "Small packages," for which the proposed maximum charges would in many instances far exceed the actual value of the empties, and thus render their return impracticable.

OBJECTIONS TO SPECIAL ARTICLES.

AMMONIA LIQUID.—Some of the industries having vast capital sunk in plant are working by processes which have no chance of success, except by the utilisation of their waste products (of which ammonia liquid is one), and need all the facilities for trade that can possibly be given. When ammonia liquid is packed in glass bottles of $\frac{1}{2}$ -gallon capacity, in which a large portion of the trade is carried on, the glass bottle (classified when empty in Class 1) forms at least 40 per cent. of the weight of the total consignment. Being of low value, the transfer of this article from Class 3 to Class 5 will be a great hardship to the drug and chemical trade.

GLYCERINE.—A third-class rate would be sufficient for this article, as it is securely packed in tins contained in strong cases, and is, therefore, not liable to be easily damaged.

This substance is now largely used for a variety of purposes, and the advance to a fifth-class rate would undoubtedly check trade in so useful an article.

HONEY.—No objection is made to putting "honey in jars" in Class 4. But honey in casks or tins contained in cases is not liable to be easily damaged, as the packages are strong. This class of honey is of lower average value than the goods in Class 3, in which it was formerly classified, and should, therefore, remain in that class.

LIME OR LEMON JUICE, OR LIME AND LEMON-JUICE CORDIALS.—These should be left in Class 2, as heretofore. There is a developing trade in these articles. They are of great use to the community at large as anti-scorbutics, and are really articles of food developing temperance in a marked degree. The value is small, they are easily handled, and not liable to breakage or leakage. When there is such a large increased consumption and transport of beer, spirits, &c., it is clearly to the advantage of the community that the lowest possible rates be charged for articles like lime and lemon juice.

CASTOR OIL.—Objection is made to this article being raised from Classes 2 and 3 and included with other "oils" in Class 4, as it is largely used as a lubricant for stationary and marine engines and for manufacturing purposes. Much of the oil imported is sold at 22*l.* per ton. The advance to Class 4 would seriously affect the trade in this useful commodity.

COD-LIVER OIL.—Objection is made to this article being raised from Class 2 and included with other "oils" in Class 4. The traffic in this oil is of considerable magnitude for a medicinal agent—several thousand barrels of it (weighing about 250 lbs. each, and of an average value of 80*s.* per barrel) are sent annually into this country from Norway and other places, the freight from the Norwegian ports into London or Hull being only about 4*s.* per barrel, equal to about 36*s.* per ton. The withdrawal of this oil from its previous classification will fall hardly upon the poorer classes of Great Britain and Ireland, as much is distributed gratuitously by means of hospitals and infirmaries.

OLIVE OIL.—The use of this oil for dietetic purposes has, with much advantage to public health, increased to no inconsiderable extent during the past few years, and it is desirable that even on this account every facility should be given for increased rather than restricted traffic. The inferior olive oils not adapted for eating are used for lubricating and other purposes. In many instances no other oil can be substituted; this latter is particularly the case with many medicinal preparations for which it is largely used. The same objection to re-classification applies as in the case of cod-liver oil.

"SMALLS."

SMALL PACKAGES.—Although wholesale druggists have an intimate knowledge of the additional cost of filling orders for small quantities, as compared with those for original packages or large bulk of goods, and do not think it would be justice to ask railway companies to carry consignments under 5 cwt. at the same *pro rata* charge as for 1 ton and upwards, they do most strenuously oppose the proposed "double rates for smalls," inasmuch as three-fourths of their consignments are under 560 lbs. in weight, and the cost of carriage on the bulk of their trade would be thus doubled. They are of the opinion that if some diminishing percentage charge were added on, being varied according to the amount of the freight itself, that such system would be unobjectionable, and think the table published in the Clearing-House Book, termed "Scale of Charges for Smallsm under 500 lbs.," is a type of what might fairly be charged under such circumstances, for it is impossible to be argued that the increased cost of carrying *Smallsm* is anywhere in the proportion of double the rate.

They are also of opinion that the proposal to charge any fraction of a quarter of a ton as a quarter of a ton would be very unjust in the case of consignments under one ton.

They are also of the opinion that the weight for smallsm should be left at 500 lbs., as in former scale, but they do not press their objection to this alteration.

THE DISCUSSION.

The CHAIRMAN, after the reading of this report, observed that the Chamber of Commerce had to deal with the reports and investigations of a number of its sections representing a great many trades, and that they should endeavour as far as possible to formulate their suggestions and objections in such a manner as to obtain the greatest possible similarity and "parallelogism."

Mr. CHAS. UMNEY said that the drug trade sub-committee had unanimously come to the decision that they had better reserve the whole of their strength to attack such of the railway companies' proposals as affected them most seriously. True, matters like the terminal charges, sidings, &c., also touched the drug trade, but by no means to the same extent in which they affected other trades dealing in heavier goods. They might, therefore, leave it to such industries as those of Birmingham, &c., to attack those points, which the latter could do with far greater success than they, as the average consignments of druggists were rather below than above 200 lbs. in weight. He would like some of the gentlemen present who were not members of the committee to give them their views on some of the clauses of the report which had just been read.

Mr. RICHARD BARRON thought the proposed increase in the charge for empties was open to the most serious objection. Anyone comparing the present rate and that which the railway companies now proposed to make would see how hard the increased charge would press upon their customers. With reference to the suggestions which they had made about "smallsm," the committee's report also should be most carefully considered by the meeting, and the hands of the committee would be greatly strengthened if that meeting would decisively place it upon record whether it approved or disapproved of the committee's recommendations. As regards terminal charges, Mr. Barron bore out what Mr. Umney had said—viz., that the average of the druggists' consignments was comparatively so light that they had not felt it their duty to go into that part of the question.

Mr. JOHN J. EVANS thought that it would be wise, previous to bringing the objections before the Board, to employ counsel or a solicitor for the purpose of framing the objections in proper legal phraseology. The meeting might be interested to know that on the previous Saturday a meeting of the local chemists' association was held in Liverpool, at which certain resolutions were passed affirming that chemists were compelled at present to sell their goods for less profit than they had formerly obtained; that the rates now charged by the railway companies in this country for carrying drugs and chemicals were amply remunerative, and higher than in other countries; that the proposed increase in rates would encourage the forwarding of goods by water, &c., thus causing delay in the carriage; that the proposed increase of about 100 per cent. on the rates for small parcels was exorbitant, especially to chemists and druggists, the average weight of whose goods was lighter than that of other trades; that the usual assortment of a chemist's goods consisted principally of low-priced articles, which were less liable to damage than other goods; and that, therefore, drugs should, if anything, be classed lower, and not higher, than they had hitherto been rated.

INFLAMMABLE AND CORROSIVE LIQUIDS.

Mr. ALFRED PRESTON believed that it was of no use for a meeting of that size to enter into all the details of the proposed objections and debate them at length, and as it was evidently necessary that a further report should be made, he would move the adjournment of the meeting. From the observations of the Chairman, he gathered that the question of corrosive and inflammable liquids might also be profitably dealt with in the final report. Mr. Umney and the speaker had been to some of the railway authorities to see what could be done to bring about a satisfactory solution of this question, but he found that the companies only tolerated the forwarding of such goods, and by no means admitted the right of the druggists to send them.

The CHAIRMAN could not see the use of postponing the meeting, and appealed to Mr. Preston to withdraw his resolution.

Mr. C. HODGKINSON expressed the opinion that THE CHEMIST AND DRUGGIST should be requested not to report what had fallen from different gentlemen with reference to

the carriage of inflammable and corrosive liquids. The fact that the druggists were at present in the habit of including such goods in their consignments was *sub rosa*. The public did not know that such articles were sent, and if through the agency of the journal of the trade this became generally known, considerable injury might be inflicted upon retail dealers. As to the wholesale firms, they would not be much affected.

Mr. DAVID HOWARD said they all knew that the tender mercies of the railway companies were by no means kind, and that they would get very little consideration from that quarter. He would earnestly beg that the Board of Trade should be requested to make definite provision for the carriage of inflammable and corrosive liquids.

Mr. CHARLES UMNEY thought that the meeting was digressing from the subjects which they were met to discuss, and after a few remarks by the Chairman and others, the first clause of the report of the sub-committee, relating to the classification of drugs and chemicals in hampers and cases, was agreed to.

THE CASE FOR THE COMPANIES.

Mr. MARTIN advised the trade not to look at the question exclusively from their own point of view. If they would take the trouble to consider the matter from the side of the railway companies they might discover that the latter had not made these new proposals without being able to bring forward very cogent reasons in their support. He had himself gone carefully into the question, and had applied to the representative of one of the great carrying companies (Sutton's) in his own town of Newcastle-on-Tyne, thinking that he might find assistance in that quarter, when he was told that Sutton & Co. found that no less than 80 per cent. of the claims upon them came from druggists, and that, moreover, there was never any salvage on druggists' goods, whereas on other merchandise the proportion of salvage, as a rule, was considerable. With reference to the committee's objection to the classification of empties, and their complaint that returned empty bottles should be classed higher than new ones, statistics could be adduced to prove that new bottles, being better packed than returned empties, were less liable to damage and claims.

Mr. CHAS. UMNEY could not admit that the railway companies had acted at all reasonably in their proposed classification of drugs. It was perfectly preposterous to place drugs in the same class with pianos, mercury, and dead horses. As to the smallness of claims on druggists' consignments the percentage (1s. per 100l. worth of goods carried) mentioned in the report was not an imaginary one, but had been arrived at by the careful comparison of the actual claims of a large number of wholesale firms extending over the whole of last year.

Mr. MARTIN: The railway companies do not look at the proportion of claims to the value of goods carried, but to their proportion at the ratio of their (the companies) own receipts—in other words, to the freight paid. In Newcastle they found that the average of the claims was 5s. 2d. per 100l. of carriage paid.

Mr. DAVID HOWARD contended that even such a proportion would not justify the companies raising the carriage to the extent they proposed doing.

SUTTON AND SALVAGE.

Mr. ALFRED PRESTON had never known a case of a claim by a drug house in which there had been no salvage. He could not understand that observation of Mr. Martin's at all.

Mr. RICHARD BARRON believed that his firm sent as many parcels through Sutton's agency as any other drug house in the country, and they did not know, so to say, what breakages were, and never had to make any claims, save when, as occasionally happened, parcels went astray altogether, but then they obtained an allowance. He had asked Mr. Hodgkinson for the experience of the latter's firm with regard to breakages, and was told that their claims amounted to one in three or six months. In answer to a question Mr. Barron created some merriment by saying that of course if parcels were lost there was no salvage.

Mr. WEBB thought that it was an element of strength in the railway companies' case that they had in previous years frequently reduced their rates, and that formerly their charges had been higher than they were now.

Mr. W. H. FRANCIS believed that Mr. Webb was mistaken in this statement. Having gone carefully through the whole of the tariffs he could affirm that the instances where rates had been reduced were infinitesimal as compared with cases where they had been raised.

Mr. S. B. BOULTON, in support of this view, read a letter from a provincial correspondent, in which the latter complained that upon the strength of the proposed new rates the London, Chatham, and Dover Company had already commenced to raise their charges 30 per cent. The second clause of the report relating to empties was then agreed to, and the clauses relating to certain specific articles were approved of *en bloc*.

WEIGHT OF DRUG CONSIGNMENTS.

With regard to the clause concerning small packages

Mr. WEBB thought that it was scarcely enough to say that three-fourths of a wholesale druggist's parcels consisted of consignments under 560 lbs. in weight. He certainly thought the proportion much larger than that, and believed they might just as well put this part of their case somewhat stronger.

Several members having expressed their approval of this suggestion, the Assistant-Secretary read a resolution passed at a meeting of the sub-committee of the grocery trades, held that morning, in which it was decided to agree to a 2-cwt. limit for "smalls," with an addition to the respective class-rates not exceeding 20 per cent. on parcels up to 2 cwt. in weight. It was suggested that a similar recommendation might be adopted by the drug trade, especially as at present the average increase on the class-rates for "smalls" was only 11 to 12 per cent., while in Continental tariffs it was not even as much as that. Mr. David Howard believed that the average weight of drug consignments was less than 200 lbs. and Mr. Umney informed the meeting that out of a batch of one hundred invoices sent out by his firm, and taken without regard to any special circumstances, there was not one for a consignment weighing more than 2 cwt. Upon the formal motion of Mr. Webb, seconded by Mr. R. Barron, it was then agreed to substitute the words "four-fifths" for "three-fourths" in the sixth line of the clause relating to small packages. It was also agreed to strike out all the words after "scale" in the last line of the same clause, and to insist upon the retention of the 500-lbs. limit for "smalls."

Upon the motion of Mr. Charles Umney, seconded by Mr. J. J. Evans, it was then unanimously resolved:—

That the report referring to the drug-trade section, subject to the alterations disapproved and agreed to this day, be referred back to the committee with instructions to add examples, and to confer in their discretion with an expert in order that the terms be drafted into suitable phraseology for transmission to the Board of Trade and the railway companies.

Mr. DAVID HOWARD then moved as a separate resolution, and Dr. MESSEL seconded:—

That it is essential that the transmission of small quantities of corrosive and inflammable liquids should be provided for, the present arrangements being such that it is impossible to send such consignments as are required in retail quantities.

This was unanimously agreed to.

Mr. RICHARD BARRON would like to know whether the council of the chamber or the committee would be represented before the Board of Trade by counsel.

THE SINEWS OF WAR.

In answer to this it was explained that the Board of Trade had announced that they would not hear counsel *qua* counsel, but that the interests represented might appoint a "spokesman," who might be a barrister. Mr. Barron then formally proposed to start a guarantee fund, so that the drug trade should have it in their power to instruct counsel if necessity arose, and be prepared for emergencies. Up to the present Mr. Francis (who, with Mr. Umney, had practically done all the work of the committee) had only expended, he believed, some 20l.; but it would be as well to provide funds to spend, say, 100l. if it should be necessary. He would be glad to open such a fund, and he knew that there were a great many "sundries men and such like, as well as manufacturing chemists and that class of people," who would be anxious to

bear their share of such a fund. Mr. Maw, of S. Maw, Sons & Thompson, had already requested him to put the name of that firm down for the same amount which he (Mr. Barron) was going to give. He moved:—

That it is desirable that a guarantee fund be now founded for defraying the necessary expenses connected with the subject of the Railway and Canal Traffic Act (1888), in so far as concerns the wholesale drug trade.

Mr. C. HODGKINSON seconded the motion, which was adopted unanimously, it having been stated in answer to Mr. S. B. Boulton that the fund would be used in the interests of the drug trade alone, and not in that of the heavy chemical section. At and after the meeting the following firms sent in subscriptions of 5*l.* 5*s.* each towards the fund to Mr. W. H. Francis:—

Barron; Harveys & Co.; Howards & Sons; Hodgkinson, Treacher & Clarke; Evans, Sons & Co.; Evans, Lescher & Webb; Hearon, Squire & Francis; Wright, Layman & Umney; Arthur S. Hill & Co.; Baiss Brothers & Co.; Thos. Hodgkinson, Prestons & King; Corbyn, Stacey & Co.; J. Morson & Sons; Wyleys & Co. (Coventry); Davy, Yates & Routledge; S. Maw, Son & Thompson; Southall Brothers & Barclay (Birmingham); Jas. Woolley, Sons & Co. (Manchester); Langton, Edden, Hicks & Clark.

Most of the druggists then left the room.

THE CHEMICAL COMMITTEE'S REPORT.

Mr. S. B. BOULTON rose to read the interim report of the Sub-committee of the Chemical Trades.

He stated that the Tar Distillers' Association, of which he was President, and which consisted of about thirty manufacturing chemical firms in various parts of the United Kingdom, had met to consider the question, and had arrived at certain resolutions. In the first place, they did not see that, under the new Act, there should be any addition to the rates at all. The Act had been passed to prevent undue preference and to redress grievances, and there was no excuse for the railway companies to take advantage of it by raising the rates. They therefore objected generally to any addition to the maximum rates which had hitherto existed. In the next place, they objected to any addition to the terminal charges being agreed to unless some work or service was done in return.

Then, going into details, the Tar Distillers' Association objected to the classification of various articles. For instance, coal-tar pitch, which could be loaded and unloaded as easily as coal, and is not more dangerous or difficult to send or to handle, should be put into Class A, instead of C.

Coal tar, creosote or heavy oil of tar, and gas liquor or ammoniacal liquor, when carried in owner's tank trucks, should be removed from Class C to A, crude anthracene from Class 3 to C, and "anthracene, except otherwise herein provided," should be put in Class C, instead of 5.

Crude carbolic acid (liquid) and carbolic acid (solid), disinfectants or crystals, should be put in Class C, and sulphate of ammonia from Class C to B.

The committee then made the following additional recommendations:—

Chromate ore from Class C to A.

It was suggested that alkali, which under the new schedule is withdrawn from classification, should be included in Class A, but that in no case should a higher rate be made than 1½*d.* per ton under twenty miles or 1*d.* per ton over that distance.

The above to include all solid chemicals, such as caustic soda, soda crystals, &c., in waggon loads of 4 tons and upwards.

It was stated that "copperas" was included in Class 1, whilst sulphate of iron was put in Class C; but, as the two terms were generally considered as synonymous in the trade, it was suggested that "copperas" should be included in Class A.

Silicate of soda should be removed from Class 1 to A.

Sal ammoniac and borax from Class 2 to C.

Saltpetre and caustic potash from Class 1 to A.

Chemicals (not dangerous, corrosive, or explosive), in casks, iron drums, bales, or bags, from Class 3 to C.

Bichrome and bichromate of potash in casks, from Class 1 to A, and coal, fuel, patent, from Class B to A.

THE CLASSIFICATION OF THE MANCHESTER CHAMBER OF COMMERCE.

With regard to the classifications suggested by the Manchester Chamber of Commerce, the tar distillers as a trade require certain modifications therein. For instance, "anthracene" should be placed in Class C, whereas it answers to the description of articles which, in the Manchester Chamber's list, are included in Class 1. Carbolic acid should also be included in Class C. The schedule drawn up by the Manchester Chamber appears to partake of a new classification, departing from the system adopted by the railway companies in their published schedules, and there may, therefore, be some difficulty in following the course suggested by that Chamber.

The manure manufacturers of London appear to be working through their own association, and no representative from the manufacturers of acids having attended on the committee, the secretary has been requested to write to Dr. Rudolph Messel asking him for his views on the subject.

Mr. S. J. STEEL read a number of statistics prepared by him for the purpose of proving that under the proposed new charges the rates on alizarine would be practically doubled in a great many instances. The alizarine trade in this country was becoming a very important one, and had to exist and progress in the face of a most strenuous competition of German works. The principal alizarine markets in this country are Glasgow and Manchester. The present charge for carriage of the article from London to Glasgow was 43*s.* 4*d.*, the proposed rate was 85*s.* 9*d.*; from London to Manchester the rate was now 27*s.* 6*d.*, and it was proposed to increase this to 50*s.* per ton. At present alizarine was placed in Class III., the companies propose to raise it into Class IV., whereas the committee demand that it shall be reduced to Class C.

After some further remarks by Dr. Rudolph Messel on the subject of the rates for crude acids, the meeting broke up.

The sub-committees meet on Monday to make the necessary additions to the objections and prepare the final schedules for the consideration of the Board of Trade.

OLEATE OF MERCURY.

MR. A. P. BROWN, PH.G. communicated a paper to a recent meeting of the Philadelphia College of Pharmacy on the preparation of oleate of mercury. The paper is published in the *American Journal of Pharmacy*, but we give the practical and essential points of it. In Dr. Wolff's method for preparing the oleate by double decomposition of sodium oleate and mercuric chloride, the aqueous mixture is boiled, and Mr. Brown points out this has the effect, if boiling be long continued, of decomposing the mercuric oleate with the formation of a black compound, which affects the colour of the resulting product. He proposes the following plan:—Mix together in a mortar ʒviij. of powdered white castile soap and ʒiij. ʒij. of bichloride of mercury in fine powder; add distilled water sufficient to form a pasty mass; throw this immediately into boiling water, and boil carefully until a yellow oily liquid is formed; allow to cool, pour off the water and wash the resulting oleate with distilled water until tasteless; place it in an evaporating dish, and on a water-bath heat until all the water is driven off. By following this process an oleate of mercury will be obtained resembling very much recently-prepared citrine ointment. This can be diluted with lard or lanolin to any desired strength. The author prefers lanolin. [Two points should be kept in mind regarding this preparation: (1) It is of full mercurial strength—that is, 100 per cent.—and *must be* diluted for medicinal use. (2) It is not a pure oleate, but will, like the powdered oleates made from olive-oil soap, contain palmitate also.—ED. G. & D.]

THE "ART OF DISPENSING" is a very excellent work, giving general directions for many of the perplexities in dispensing work, such as pill excipients, suppositories, &c.—*New England Druggist*.



The following applications for Patents have been registered at the Patent office.

- Acetic Acid.**—5,221.—March 26, 1889.—M. Cannon. Improvements in the manufacture of.
- Acids for Aërated Waters.**—4,294.—March 12, 1889.—J. G. Chapman. Improvements in compound acids for use in the manufacture of aërated waters and other beverages.
- Antiseptic Preparations.**—5,984.—April 8, 1889.—R. Hannan. Improvements in.
- Artificial Musk.**—4,963.—March 21, 1889.—A. Baur. A method for producing.
- Boxes.**—4,936.—March 21, 1889.—W. H. Hartley, in behalf of Sequah (Limited). Improvements in the construction of pill and powder boxes.
- Bronchitis Kettle.**—6,319.—April 13, 1889.—R. J. Lee, T. Toogood, & J. Toogood.
- Capsules.**—6,245.—April 12, 1889.—G. Twigg. Improvements in the manufacture.
- Catheters.**—4,816.—March 19, 1889.—C. A. Chapman & E. H. Grimwade. Improvements in.
- Cleaning Compound.**—6,601.—April 17, 1889.—J. H. Casey. For paint, veneer, varnish, &c.
- Copying Ink.**—5,550.—April 1, 1889.—E. Edwards.
- Corns.**—5,329.—March 28, 1889.—A. G. Speight. Curing corns or hard excrescences on the foot.
- Cotton Seed.**—5,622.—April 2, 1889.—I. Pearson. Treating cotton-seed oil mucilage to obtain soap.
- Cough Mixture.**—4,639.—March 16, 1889.—Julia Bernstein.
- Disinfectants.**—4,387.—March 13, 1889.—H. Oppenheim. Tablets for disinfecting, antiseptic, medical, bleaching, and laundry purposes.—4,558.—March 15, 1889.—W. W. Colley. Improvements in medicating and disinfecting paper.—6,411.—April 15, 1889.—F. W. A. Hillé.
- Disinfecting Adhesive Paint.**—5,368.—March 28, 1889.—H. E. Kent.
- Disinfecting Enamel or Paint.**—5,792.—April 4, 1889.—L. E. Andés.
- Face-powder.**—6,224.—April 11, 1889.—A. Abramoff.
- Feeding Bottles.**—3,941.—March 6, 1889.—A. C. Weiss. Improvements in.—4240.—March 11, 1889.—A. & A. Greenberg. A new appliance for.
- Liniment for Rheumatism.**—6,426.—April 15, 1889.—W. D., J. B., & C. J. Farn.
- Medicine.**—6,345.—April 13, 1889.—H. J. Needs & W. T. G. Williams. Chemical preparation for the cure of the disease known as pip.
- Medicines.**—4,315.—March 12, 1889.—J. L. Mortimer. Improvements in medicinal preparations for external application.
- Ointment.**—5,692.—April 3, 1889.—C. J. Tozer. For application to wounds and eruptions.
- Oxymethoxybenzoic Acids.**—5,785.—April 4, 1889.—J. Y. Johnson. Production of.
- Periodides of Phenols and Salicylic Acid.**—5,079.—March 23, 1889.—B. Willcox. Manufacture of.
- Picric Acid.**—4,359.—March 15, 1889.—E. Eisenmann & A. Arche. Improvements in the manufacture of.
- Polariscope.**—5,155.—March 26, 1889.—J. Anderton. An improved.
- Polish.**—5,267.—March 27, 1889.—C. Hartridge. To be called "Starpolite."

Polishing Paste.—5,439.—March 29, 1889.—A. C. Fursc. Improved composition of.

Powder Scoop.—4,506.—March 15, 1889.—J. W. Wardley.

Purifying Quicksilver.—5,980.—April 8, 1889.—P. & A. Schroedter.

Sauces and Condiments.—4,940.—March 21, 1889.—L. E. Blackwell.

Sealing-wax.—5,349.—March 28, 1889.—J. Freemont. Improvement in the manufacture of.

Self soaping Washing-pad.—5,990.—April 8, 1889.—S. Goldman.

Soap Powder.—4,651.—March 16, 1889.—H. C. Foulsham.

Soda Alum.—6,443.—April 15, 1889.—E. Augé. Manufacture of.

Stamp or Label Moistener.—6,449.—April 15, 1889.—J. Franke.

Syringe and Medicine Case.—5,636.—April 2, 1889.—G. B. Ross.

Tablets.—5,861.—April 5, 1889.—J. A. McFerran. Machinery for compressing powdered substances.

Teething Pads.—5,285.—March 27, 1889.—Thompson, Walters, Hole & Co. (Limited), and L. Walters. Improvements in.

Toilet and Nursery Powder.—4,643.—March 16, 1889.—H. W. Langbeck.

Tonic Grit for Birds.—4,150.—March 9, 1889.—R. A. Hyde.

Trusses.—5,338.—March 28, 1889.—W. Dyer. Improved belt and expanding pad for rupture.—5,807.—April 5, 1889.—J. Arnold. Improvements in surgical pads and pessaries.

Varnishes.—6,581.—April 17, 1889.—G. H. Smith. Treatment of gum copals, gum resins, and other gums, for the manufacture of varnishes, &c.

Waterproofing Solution.—5,763.—April 4, 1889.—M. Gaugl & J. Mössner. For rendering cloth, felt, paper, and the like waterproof.

Specifications recently published.

1888.

- 3,094. Merch & Mennel. Mercury compounds. 6*d*.
- 4,392. Livesley and Charlesworth. Truss pads. 6*d*.
- 4,404. Thompson. Filling teeth. 8*d*.
- 4,649. Browne. Surgical lint manufacture. 8*d*.
- 5,212. McDougal & McDougall. Sulphurous acid, &c. 11*d*.
- 5,723. Webster. Chalybeate waters. 6*d*.
- 5,866. Payne. Plate powders. 4*d*.
- 5,878. Fisher. Paints or varnishes. 6*d*.
- 5,996. Haanen. Abdominal belt. 6*d*.
- 6,151. Chatfield. Baking powder. 6*d*.
- 6,407. Lake. Disinfectants. 8*d*.
- 6,576. Haywood. Pads for trusses, &c. 4*d*.
- 7,060. McDougall & others. Bisulphites. 11*d*.
- 8,048. Dodd. Pads for trusses, &c. 4*d*.
- 8,262. Morris. Vaseline. 4*d*.
- 11,247. Dunnett. Bronchitis kettles. 8*d*.
- 13,866. Buckton. Infants' feeding-bottles. 6*d*.
- 15,750. Green. Pill-coating machinery. 8*d*.
- 17,135. Marriott. Baby comforters. 6*d*.
- 17,549. Barbe. Vinegar. 11*d*.
- 18,647. Dewsbury. Medicine bit. 6*d*.
- 18,775. Giles & others. Bi-sulphite and meta-bisulphite of sodium or potassium. 4*d*.
- 18,860. Allison. Cleansing filtering-media. 8*d*.

1889.

332. Koppel. Injecting syringe. 8*d*.
- 3,215. Sparrow. Curing indigestion, &c. 4*d*.

Abstracts of Patents.

The following are abstracts of published specifications:—

Trusses. (No. 11,885. September 2, 1887. By T. G. Daw, Sevenoaks. 8*d.*) The pad of the truss is the portion upon which the inventor operates. By means of five screws and levers he so constructs the pad that the patient, actuated by his sensations and feelings, can adjust the pad himself. The specification contains a diagram showing how this is done.

Disinfectant. (No. 12,222. September 9, 1887. By Richard V. Tuson, New Charlton, Kent. 4*d.*) A solution of 3 lbs. chloride of zinc and 2 oz. of corrosive sublimate in $\frac{1}{2}$ gallon of water is made, and to this is added enough saturated aqueous solution of sulphurous acid to make 1 gallon.

Disinfectant. (No. 12,483. 1887. By J. Bennett, Grove House, Goole. 4*d.*) A mixture of 68 parts peat dust, 28 parts water, and 4 parts sulphuric acid.

Trusses. (No. 12,503. September 15, 1887. By P. Kerivan, 26 Anghrim Street, Dublin. 8*d.*) This is a linen elastic belt, rather broad, with the pad or pads in the proper position in the inside, but moving up and down, and these are adjusted by means of a strap or straps passing under the scrotum. The specification is accompanied by a diagram.

Cleansing Powder. (No. 13,047. September 27, 1888. By J. W. Paton, Leith Offices, Moorfields, Liverpool. 6*d.*) A mixture of 3 cwt. of 56 per cent. carbonated soda ash and 1 cwt. of precipitated carbonate of lime—both thoroughly dry. Used for cleaning floors, oilcloths, marble, metal, and other materials.

Pill Spatulas. (No. 13,145. September 28, 1887. By T. F. Golding, 172 Albany Street, N.W. 6*d.*) This invention consists of a peculiar shaped blade, with a concavity in one edge which fits the contour of the pestle. The back is curved, so that the contents of the mortar can be readily scraped out. The drawing shows the conformation of the blade, which is made in three sizes.

Black Varnish. (No. 7,929. May 30, 1888. By T. Garton and W. Berkeley, London. 4*d.*) Tar is boiled until it becomes hard on cooling. 25 per cent. of powdered asphalt is then added, followed by 10 per cent. of gum animé previously melted in a separate vessel. The whole is incorporated, and, if need be, thinned with boiled linseed oil, while hot. 10 per cent. of litharge is finally added. Is said to stand comparatively high temperature, and to be useful for stoves and the like.

Powder Puff. (No. 13,470. October 5, 1887. 8*d.*) The invention of Miss A. M. F. Thatcher, artist, The Wigwam, Montpelier Square, Brompton, S.W. The leather bag of an ordinary powder puff is so made that it may be filled with toilet powder, and being perforated at the base, this exudes when desired. The same principle is applied to other articles, such for example as a pocket case of chamois with the powder section perforated.

Sozoiodol, or Iodized Sulpho-Acids of Phenol, &c. (No. 14,820. October 31, 1887. 6*d.*) This patent relates to the preparation of the iodized sulpho-acids of phenol, cresol, and thymol, by a process devised by Dr. E. Ostermayer, of 4 Weissfrauengasse, Erfurt. The process is, briefly stated, this: Dissolve 16.5 kilos. of potassium iodide in 10 kilos. of water, and add 52 kilos. of hydrochloric acid and 7 kilos. of sodium nitrite. To this add a solution of 21 kilos. of potassium paraphenol-sulphonate in 60 kilos. of water, when in a short time an acid potassium salt of iodoparaphenol sulphonic acid will crystallise out. This salt is impure, but by converting it into the barium compound and treating as described, it may be purified.

Disinfectant. (No. 14,864. November 1, 1887. 6*d.*) The inventors are Mr. W. B. Giles and Mr. A. Shearer, both of Stratford. In a suitable apparatus (which is described) they place strong sulphuric acid, to which 30 per cent. of sulphuric anhydride is added, and with this they mix some benzine, or one of its homologues. Chemical reaction results, and as heat is evolved, means are taken to control this. The reaction at an end, the acid-liquid is treated with

a base, such as lead or barium, in order to separate excess of sulphuric acid. After standing the supernatant liquid is decanted, and after purification is ready for application as an antiseptic, disinfectant, and preservative.

Sinapism. (No. 15,013. November 3, 1887. 6*d.*) The inventors are J. J., F. E., J., & R. J. Colman, of Norwich. The sinapism is made by simply pressing firmly ground mustard very strongly between two pieces of muslin (one open and one closely woven), whereby the whole adhere to form one solid piece. Four to five grammes of mustard are thus spread over a surface of one square decimetre. The metal plates between which the sinapisms are pressed have markings, which emboss the sinapisms, thereby ensuring perfect union. The sinapisms are further enclosed in waterproof paper or parchment coverings.

Ink. (No. 15,079. November 5, 1887. 6*d.*) Mr. William Hackney, C.E., of Swansea, proposes by this invention to prevent the drying up of ink by adding to it a deliquescent substance, such as calcium chloride. And to expedite the drying of the ink when used in writing, he further proposes to incorporate with the writing-paper a substance—such as sodium sulphate—which will decompose the calcium chloride. Obviously in that case calcium sulphate and sodium chloride—non-deliquescent substances—will be formed. The ink may also be “fixed” by using ordinary paper for writing on, and blotting with a bibulous paper impregnated with a soluble sulphate. The specification also describes how letters written with the ink are to be copied, and further details, interesting only to paper-makers, are given.

Hydrophobia. (No. 15,202. November 8, 1887. 4*d.*) Dr. Thomas McCall, of Morecambe, is the inventor of an application described in this specification “for the prevention of hydrophobia and other diseases of a similar origin, and pocket case therefor, to be carried about the person in the pocket or otherwise.” Practically the case is a caustic holder, the “caustic” consisting of a mixture of nitrate of potash, sal ammoniac, sugar, or other inert substance, and “a certain proportion of bichloride of mercury or other powerful virus destroyer.”

Antiseptic. (No. 15,564. November 14, 1887. 4*d.*) The inventors have discovered that salicylic acid is soluble in solutions of the alkaline sulphites, and they therefore propose to make such solutions for antiseptic purposes. Thus a saturated solution of sodium sulphite dissolves a sixth of its weight of salicylic acid. The solution is suitable for preserving beer, milk, &c., for disinfecting, and for surgical purposes. The specification is signed by A. Boake, F. G. Adair Roberts, A. Shearer, and William B. Giles, all of Stratford.

Tooth-brush. (No. 15,802. November 17, 1887. 6*d.*) This is the invention of J. Evans, dentist, and F. Golding, chemist, both of Albany Street, N.W. The brush has instead of the usual long handle a small holder into which it screws. The holder is large enough to admit the finger, and may be used as a case for the brush itself. The drawings show the structure clearly.

Medicinal Lozenges. (No. 16,700. December 5, 1887. 4*d.*) Mr. C. Willson, chemist, of Grimsby, proposes in this invention to combine saccharin (Fahlberg's) with sodium carbonate or other alkaline carbonate, and with sugar, sugar of milk, gelatine, gum, or other substance, to form pearls or tablets. Medicinal substances, such as ginger, ipecacuanha, lemon kali, &c., may be added, so as to render the tablets suitable for the treatment of various complaints. They may be made by “cutting, rolling, stamping, moulding, or pouring,” &c. The claim covers the application of saccharin in the manufacture of every kind of simple and medicated lozenge.

Embrocation. (No. 17,008. December 10, 1887. 4*d.*) Mr. J. L. Polley, surgeon, of Belfast, is the patentee in this case, and his invention is comprised in the following formula:—(1) Powdered capsicum, 1 lb.; rectified (or methylated) spirit, 1 gallon. Macerate for four days and filter. (2) Melted vaseline, 1 lb.; spirits of turpentine (or turpentine), 1 gallon. Mix well. Nos. 1 and 2 are to be blended in order to form a uniform cream, and to each gallon the inventor may add 6 oz. of Mona bouquet, or other suitable perfume. This liniment is intended for the treatment of rheumatism, pulmonary diseases, and the like.

THE PHARMACEUTICAL SOCIETY PRELIMINARY EXAMINATION.

A MEETING of the Board of Examiners for England and Wales was held on Thursday, May 2, 1889.

The report of the College of Preceptors on the examination held on April 9 was received.

437 candidates had presented themselves for examination, of whom 204 had failed.

The following 233 passed, and the Registrar was authorised to place their names upon the register of apprentices or students:—

Adams, William Stewart, Dundee
 Adamson, Andrew, East Wemyss
 Allen, George, Crewe
 Allen, John Wilfred, Douglas, I.M.
 Askham, Harry Joe, Rotherham
 Atkin, Frederick C. D., Cambridge
 Ayre, Henry, South Molton
 Bagshaw, Robert R., Leveushulme
 Bainbridge, Algernon R. C., York
 Barker, Robert, Aldborough
 Barrett, Rees, Talley
 Barton, John, Lower Ince
 Barton, John English, Aspatria
 Bell, Robert John, London
 Benington, Philip, Liverpool
 Bertles, Saml. R. G., Warrington
 Betts, Harold George, Smethwick
 Bingham, Frank, Mashborough
 Blackwood, Wm. S. S., Muirkirk
 Braddock, William, Oldham
 Brander, William, Tnrriff
 Brauer, Fredk. Hy. F., Prestwich
 Brown, John, Edinburgh
 Brown, John Arthur, Ripley
 Buckland, J. D., Hucknall Torkard
 Burnett, Charles J., Dufftown
 Burrows, Harry, Southgate
 Bushnell, Edward L., Ahergele
 Burton, Percy H., London
 Butterfield, Frank, Blackburn
 Butterfield, Harry, Blackburn
 Butterworth, Hy. L., Oswaldtwistle
 Buxton, Albert, Cockermouth
 Cameron, Lauchlan, Brighton
 Campbell, Colin, Glasgow
 Cay, Armistead G. W., Exeter
 Chambers, George H. F., Taunton
 Chantrell, William E., Birmingham
 Chapman, Frnk. E., Great Yarmouth
 Charlton, William A. P., Anson, New-castle-on-Tyne
 Chrystall, Robert, Forres
 Clarke, John, Liverpool
 Clarkson, John, Wigan
 Cole, Frederick Wm., Dartford
 Cook, J. C., Glasgow
 Cooke, Charles W., Market Drayton
 Coulson, Horace, Cambridge
 Cowpe, Henry Fisher, Preston
 Crichton, George, Kilmarnock
 Daniels, Charles, Ripon
 Dann, Charles, Whittington Moor
 Davey, Ernest Jas., Cheltenham
 Davies, Robert F., Pontardawe
 Davis, Henry, Riverhead
 Dawson, Henry G. W., Derby
 Dealve, Albert Ernest, Tavistock
 Denton, John Gill, Pontefract
 Dixon, Arthur Steele, Ambleside
 Dodd, Arthur Myddleton, Chester
 Donaldson, Hugh, Kilmarnock
 Dowson, Charles Beever, Norwich
 Dunbar, John, Dufftown
 Duncan, James, Turriff
 Dunn, Benjamin Sydney, Fareham
 Dunn, Samuel E., Hazel Grove
 Eden, William James, Manchester
 Ellison, J. B., Moyland Common
 Ettles, John, Elgin
 Evans, David, Carmarthen

Ewart, Samuel, Dalbeattie
 Exell, Edmund Charles, Sheffield
 Fenton, Richard, Blackburn
 Fish, William Sadler, Doncaster
 Fletcher, Charles S., Liversedge
 Florence, Alexander A., Aberdeen
 Francis, Arthur Edward, London
 Fryer, John William, Brigg
 Gane, Charles Hillman, Nottingham
 Garwood, George James, Norwich
 Gay, Valentine Henry, London
 Gedge, Horatio W. Turner, Clifton
 Gerhold, Henry Archer, Cardiff
 Gilbert, Sydney Frederic, London
 Grayson, William, Pickering
 Gregory, Arthur, Weymouth
 Greig, Charles John, Scalloway
 Greig, John Sangster, Aberdeen
 Grierson, George, Thoruhill
 Griffith, John R., Port Dinorwie
 Griffiths, Arthur Daniel, St. Clears
 Griffiths, Frederic G., Manchester
 Guyer, Richard Glode, Torquay
 Hale, Giles, London
 Hall, Arnold, Grantham
 Hall, Herbert, Manchester
 Hall, Robert Beeching, Folkestone
 Harley, David, Burntisland
 Harrison, Frederick C., Durham
 Harry, Elias, Carmarthen
 Hatfield, Victor John, Southampton
 Heap, Robert Edwin, Shelton
 Henry, T. A., Barrow-in-Furness
 Highfield, Henry, Darnall
 Hislop, Isaac, Dundee
 Hogg, Richard, Glasgow
 Hogg, Walter, Ulverston
 Holmes, John, Bradford
 Hopkins, William E., Llandoverly
 Humphrey, Walter Edwin, Louth
 Innes, John, Portgordon
 James, Frederick, London
 Jones, Herbert, Newport, Mon.
 Jones, James Evan, Pontypridd
 Jones, John Daniel, Ahernystwith
 Jones, Morgan Richard, London
 Keunedy, Alexander, Anchesterless
 Lawrence, Alex., Little Brighton
 Leggott, George William, Hull
 Lewis, William Spencer, Farnham
 Lister, James, Perth
 Littler, John, Frodsham
 Lloyd, Douglas M., Wolverhampton
 Long, Edward Frank, Chichester
 Lucas, Harry F., Cradley Heath
 McCallum, Alex. Phimister, Buckie
 McDougall, Edmund C., London
 MacDonald, James Maxwell, Goole
 MacGregor, Charles A., Devonport
 McKerlie, John, Dumfries
 McKinnell, W. C., Northampton
 McLean, John, Glasgow
 McLeod, John D., Kirkcaldy
 Makepiece, Arthur B., London
 Mason, Alfred Harry, Luton
 Masterman, Henry, Sowerby
 Matthews, Harold E., Cirencester
 Medley, Fred, Barnsley
 Menhinick, John, St. Mabyu
 Midg'ey, Arthur James H., Gole

Miller, Alexander, Glasgow
 Mitchell, Henry Searle, Truro
 Molson, Algernon H., Sleaford
 Morgan, Thomas A., Gwernogle
 Morgans, David, Llansawel
 Mortimer, William H., Taunton
 Moss, George Henry, Chester
 Murray, Donald S., Edinburgh
 Nicholson, George Barker, Thirsk
 Nicoll, John, Edinburgh
 Oakes, Edwin York, Bridgnorth
 Orton, Edward Charles, Foleshill
 Parry, Fredk. G., Stockton-on-Tees
 Pearson, Percival E., New Brompton
 Pick, William, Boroughbridge
 Pilgrim, Horace Granville, Selby
 Pirie, George Finlayson, Arbroath
 Plant, Thomas, Hanley
 Pooley, Arthur Henry, Norwich
 Porter, George Betton, Driffield
 Prichard, David L. K., London
 Richards, Evan William, Hirwain
 Roberts, Frederic, London
 Robson, Walter, Rugeley
 Roger, James, Dundee
 Rose, Wm. H. T. R., Lowestoft
 Ross, William Neil, Partick
 Ruff, William, Whithy
 Russell, Joseph Jackson, Cleator
 Russell, Robert, Lerwick
 Sadler, Walter, Tamworth
 Sanders, Edward Colin, Liverpool
 Seath, John A., Dumfermline
 Shirliff, W. E. Daniel, London
 Short, John, Edinburgh
 Shorthouse, H. S., Birmingham
 Sim, William, Paisley
 Siminon, Thomas, Warminster
 Skerchly, William Pearson, Derby
 Skitt, James Henry, Silverdale
 Smith, Albert George, Liverpool
 Smith, Joseph T. K., Dumfries
 Smith, Percy, Gloucester
 Smith, Thomas, William, Whithy
 Smith, W. H. Harold, Cromer
 Solly, Charles, Brockley
 Spence, Thomas, Musselburgh
 Stalker, John Falconer, Perth

Stohio, James, Alloa
 Stockbridge, F. H., Weston-super-Mare
 Strachan, James Emslie, Montrose
 Sutherland, Alexander G., Dundee
 Tasker, John H. A., London
 Tattersall, John, London
 Taylor, Abraham, Eccleshill
 Taylor, John, Pontefract
 Templeton, John, Kilmarnock
 Thomas, David, L., Willenhall
 Thomas, Hugh William, Carnarvon
 Thompson, Edward C., Sedgley
 Thomson, Charles, Cullen
 Tilbury, Robert, Andover
 Tilley, Arthur Percival, Frodsham
 Tindale, Joseph Edward, Whithy
 Tod, Adam Allan, Bishop Auckland
 Trail, Stephen Gatt, Fraserburgh
 Truhshaw, James Harold, Uttoxeter
 Turner, William, Birmingham
 Turton, Edwin E. H., Nottingham
 Walkey, William R., Devonport
 Waller, John, Stanley
 Wardale, Francis Charles, Boston
 Watkins, James Giles, Portsmouth
 Watson, Arthur Theodore, Ripon
 Wedderburn, Chas. Geo., Aberdeen
 Wharton, George Edwin, Hastings
 Wheeler, John Fredk., Ramsgate
 Whitaker, Albert, Nottingham
 Whitby, Ernest Clucas, Widnes
 Whitehead, John, Manchester
 Wyhte, William, Glasgow
 Wilkie, David Thomson, Lichfield
 Wilkinson, Arthur J., Rochdale
 Williams, George, Redruth
 Williams, Wm. Ricobd., Llandilo
 Wing, John Joseph, Boston
 Winterbottom, Arthur, Batley
 Wolseley, Marion J., King's Horton
 Wolstenholme, Jesse, Manchester
 Worswick, Frederick, Wigan
 Wray, Thomas, Haydon Bridge
 Wrothwell, F. J. H., Northallerton
 Young, Alexander, Kinross
 Young, Herbert George, Shanklin

THE meeting of the American Pharmaceutical Association at San Francisco is expected to be a large one, and the excitement is growing.

MESSRS. THOS. CHRISTY & Co. inform us that they have been appointed London agents for the Liverpool Lint Company. They will keep stock at their Lime Street warehouse, and execute orders from there within a radius of twenty miles from London.

SUPPOSED SUICIDE OF A SURGEON.—A painful sensation has been caused in Epsom by the death of Mr. Arthur O'Brien Jones, surgeon to the Metropolitan Police, Epsom division. The deceased was found on Wednesday night dead in his room, with a phial of prussic acid by his side, and also, it is said, a statement written by the deceased. Mr. Jones had spent over fifty years in Epsom, being about 76 years of age. He was surgeon for several public institutions, and though of somewhat eccentric character was much esteemed.

ON RABBIT IT!—M. Pasteur's plan for the extermination of rabbits in Australia has proved a failure. The commission appointed to report progress declares that, although the virus is fatal to bunny when he is inoculated, he won't come out to undergo that necessary operation. And so while the corn grows the bunny 'un increases also, and the experiments with chicken cholera have only succeeded in making the Australians themselves choleric. The rabbits, no doubt, consider that they have been subjected to foul treatment, and decline to play at this new game of chicken hazard. One old buck was heard to remark, "In England they wire us, and here they virus us!" The Australians will have to seek "fresh woods and Pastors new." The farmers see that pharmacy is no good! - *Judy*.

Trade Report.

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.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., May 2.

BUSINESS has been moderately active this week, and a turn in the tide of quietness is now anticipated in many quarters. The drug auctions commenced to-day were among the heaviest known in recent years, and nearly one-half of them had to be postponed until to-morrow. There were a good many alterations in the quotations established to-day, most of them being towards lower values. As regards chemicals, cream of tartar has made a decided step forwards, and tartaric acid is just a shade firmer to-day. Cocaine is well maintained, but quinine, sulphate of copper, and second-hand quicksilver are rather easier. As regards drugs, there are advances, more or less important, in Angostura bark, Calabar beans, Maracaibo bark, jalap, Jamaica honey, castor oil, rhubarb, and Jamaica beeswax. Ambergris and ipecacuanha are firmly held, but the following are on the downward path: Canada balsam, cascara sagrada, cardamoms, cascarrilla, Damiana, golden seal, Spanish ergot, Sumatra gum benjamia, *Hemidesmus indicus*, gums kino, myrrh, and gamboge, musk, tamarinds, and vanilla.

In the allied markets shellac has further declined, while cloves, gambier, and several varieties of isinglass have improved their position.

CHEMICALS IN THE NORTH OF ENGLAND.—Our correspondent writes that business is still of a very limited character in all departments, and that no new features have occurred since his last report.

THE LATE MR. FRED. BARRON.—At the commencement of the drug auctions Mr. John Griffin, from the brokers' rostrum, on behalf of the drug trade, moved a resolution of sympathy with the family of the late Mr. Fred. Barron, which was agreed to unanimously, and subsequently, Mr. Samuel Figgis, in a few well-chosen words, gave further expression to the feelings of the trade. Mr. Figgis spoke of the deceased as a thorough English gentleman of the old school, whose example the present generation would do well to emulate. It had been his privilege to have known Mr. Frederick Barron for a quarter of a century, while his partner, Mr. Peat, had been an intimate friend of the deceased for nearly fifty years. Whenever contributions were wanted for the assistance of his poorer fellow-men, Mr. Barron was always a liberal giver. Mr. R. Barron, as a relative of the deceased gentleman, thanked the trade for the manner in which they had received Mr. Figgis' kind words about his uncle.

THE AMSTERDAM QUININE WORKS.—The annual meeting of shareholders in the above-named works was held in Amsterdam on Monday, April 29, when a dividend for the year 1888 of 29f. per share of 500f. (or 5½ per cent.) was declared. It was stated that during the year under review the works had turned out over 350,000 oz. of sulphate of quinine, which had found a satisfactory market, although the average profit had, of course, been but a small one. Permission was given to the board of directors to issue the remaining 100 shares (of 500f. each) for the purpose of taking up the manufacture of other chemical products in addition to quinine salts.

ACIDS.—*Citric* remains very quiet at 1s. 4½d. per lb. on the spot, and 1s. 5d. per lb. for forward delivery. *Oxalic* unaltered at 4½d. per lb. *Tartaric* firm at 1s. 2¾d. to 1s. 3d. for foreign, and a fraction above that price for English. It

is said that a large business has been done for early forward delivery.

ALOES.—Fine *Cape* aloes were not reached to-day, but prices are scarcely likely to advance much to-morrow. A parcel of 30 cases very ordinary quality, mixed with earth, shipped here from New York, sold at 2s. per cwt., subject to defraying the charges. A large quantity of *Curaçao* aloes, mostly of ordinary quality, was disposed of extremely cheaply for low grades, of which the bulk consisted, but fine brown liver in gourds are held at the relatively high price of 100s. per cwt. Dark to good bright *Capey* sold at 17s. to 26s.; ordinary frothy overheated and black at 10s. down to 5s. per cwt. *Socotrines* fair brown soft to hard, 5l. to 5l. 10s. suggested. Common qualities are neglected, but for fine aloes a good price would be paid. *Hepatic Zanzibar*, in skins partly of fair colour, sold at 75s. to 80s.; dark at 57s. 6d. per cwt.

ANGOSTURA BARK.—The holder of the first-hand lot in New York is reported to have cleared out, and higher prices are now asked (4d. to 4½d. per lb. "c.i.f.") for this drug, which is very scarce.

ANISE.—A few parcels are included in the drug sales, but none were reached to-day. The article remains very cheap, *Chilian* at 19s. 6d., *Turkish* at 22s. 6d. per cwt., but the demand has been slightly better recently.

ANNATTO.—Some good bright red *Seeds* from South America (shipped here *via* Hamburg) were offered to-day, and sold at 2d. per lb. Dry Brazilian *roll* annatto was bought in at 1s. per lb. Cayenne annatto is held at 1s. to 1s. 2d. per lb. in Liverpool.

AMBERGRIS.—The drug auctions comprise only one lot of fine grey ambergris of fine flavour, which will be reached to-morrow, and for which the holder, in view of the extreme scarcity, is said to ask 5l. 15s. per oz. A nine-oz. lot of dark grey heavy stuff, of fair flavour, sold with good competition at 38s. per oz.

ARSENIC firm at 13s. to 13s. 3d. per cwt. for best white powder.

BALSAMS.—*Canada* balsam is offering rather lower from America, and appears cheap at present. From 1s. 5d. to 1s. 5½d. per lb. "c.i.f." is quoted. *Copaiba.*—Fine qualities are still very scarce, and held at high rates, bright Maranham at 2s. 10d. to 2s. 11d. in Liverpool. A parcel of 122 lbs. of a blackish liquid, said to be *copaiba* from Central Africa, was shown at auction to-day and bought in. About six months ago 1s. 1d. per lb. is said to have been paid for a similar lot. New York advices state that the Central American varieties, such as Carthagena, Angostura, Maracaibo, &c., continue to arrive freely, but Maranham and Pará are not offered in first hands. *Peruvian* balsam remains quiet at about 4s. 3d. per lb., perhaps a fraction less. There was a good demand for *Tolu* balsam to-day at low rates, and of 15 cases 12 were sold at 1s. 1½d. (subject) to 1s. 2½d. per lb.

BLEACHING POWDER depressed, and dull of sale at 8l. to 8l. 2s. 6d., and up to 7l. 10s. on the Tyne.

BORAX quiet at 28s. 6d. in the second-hand.

BROMINE and the Bromides unchanged.

BUCHU.—At to-day's auctions some very bright green round leaves of new import were shown and partly sold at 3¼d. per lb., which is cheap, though a fraction above the recent quotations.

CALABAR BEANS have further advanced, and sales have been made in Liverpool at 10¼d. per lb. on the spot, while for arrival one ton has been sold at the same price.

CALUMBA quiet with very little inquiry; 14 bags small to bold, good clean washed yellow root, were bought in at 36s. per cwt.

CAMPHOR.—In *Refined* camphor the market is steady, but without alteration in price. *Crude* is firmly held at last week's prices, but we have not heard of any further business on the spot. The *Carmarthenshire* has just arrived from Kobe (Hiogo) with 647 tubs. Reports from Hong Kong dated March 26 state that the market there was almost bare of stock, with only small supplies expected from Japan, and a firm tendency.

CANTHARIDES.—Sound *China* flies are nominally held at 1s. 1½d. to 1s. 2d. per lb., but at to-day's auctions there were no buyers for the 23 cases shown.

CARDAMOMS.—Very heavy quantities were brought to auction this week, the total number of packages offered exceeding 400. Some of the owners, especially those holding Indian cardamoms, were limited above the present market values, and withdrew the whole of their supply, but others offered freely, and of the 243 packages reached to-day, about 150 were sold at an irregular decline of from 2d. to 5d. per lb., medium qualities being comparatively dearest. The following prices were paid:—*Ceylon Malabar*, fair round brownish mixed, rather light, 1s. 8d. to 1s. 10d.; smaller but paler, 1s. 6d. to 1s. 8d.; small pale round, 1s. 6d.; ordinary brown small to medium specky, 1s. to 1s. 1d.; split shells and clippings, 6d. per lb. *Mysore*, fine pale medium to bold lough and round mixed, 2s. 9d. to 2s. 11d.; fair medium long brownish, mixed, 1s. 10d.; small pale round, 1s. 9d.; small to medium long and round pale heavy, 1s. 7d. to 1s. 8d.; small to medium fair pale, 1s. 3d. to 1s. 5d.; small to medium brown, 1s. 1d.; good small long, very pale bleached, 1s.; small pale, 9d. to 10½d.; ordinary brown and specky, 8d. per lb. True *Malabar*, even, pale medium round, 1s. 11d.; very small to medium round, 1s. to 1s. 7d. *Wild Ceylon*, fair to fine, 1s. 3d. to 1s. 7d. *Seed*, 1s. 3d. to 1s. 4d. per lb. The shipments from Ceylon have fallen off lately. They now total up as follows for the periods between October 1 and April 4:—1888-89, 183,016 lbs.; 1887-88, 212,066 lbs.; 1886-87, 204,983 lbs.

CASCARA SAGRADA.—On the spot 3s. 4d. was still nominally asked early this week, but it seems that the recent arrival has not been without effect upon the market, 4½ cwt. being offered at auction to-day and sold at 3s. 1d. per lb. for good usual quality, and 2s. 10d. to 2s. 11d. for bold silvery stout and quilly mixed, a decline of about 3d. per lb. It is thought in America that large quantities of *Sagrada bark* will be collected this year, and exporters are soliciting offers for November shipment at 60s. to 70s. per cwt. "c.i.f." terms, according to quality. September-October offers at 75s. to 85s. per cent. "c.i.f." We also hear from New York that samples of the new Oregon bark have already been received there, a report which seems almost incredible.

CASCARILLA.—At to-day's auctions 56 packages were offered and sold; small grey chips and dust at 25s., fair thin quill, dusty but sound, at 24s. to 24s. 6d., damaged at 21s. 6d. per cwt., all rather lower prices.

CINCHONA.—At to-day's auctions two packages South American *red bark* of dull colour were sold at the very high price of 8s. per lb. for fair to heavy broken quill and flat, and 2s. for ordinary thin mixed broken quill. *Guayaquil* long brown quill, partly damaged brought 6d. to 9d. per lb. For *Huanoco* brown quill 11d. was refused. For good bright broken *Lima* quill 2½d. per lb. was refused one lot; flat yellow *Calisaya* sold at 1s. 8d. per lb., a large quantity was bought in. *Maracaibo* firmly held for full rates. A parcel imported *via* Hamburg sold at 7d. to 7½d. for the damages, but 8d. was refused for the sound lots. At present about 2,400 packages (about one-half of British-Indian growth) are advertised for sale next Tuesday. The exports of cinchona from Ceylon between the periods of October 1 and April 4 have been as follows:—1888-9, 6,057,408 lbs.; 1887-88, 5,343,892 lbs.; 1886-87, 7,953,871 lbs. The receipts of bark at Colombo from the interior during the first three months of the year have been 900 tons against 1,332 tons last year. The exports of cinchona bark from Java in the eight months between July 1 and February 28 have been as follows:—

	1888-9	1887-8	1886-7	1885-6
Private plantations .. Amst. lbs.	2,444,870	2,001,171	1,125,310	677,627
Government	529,110	490,653	480,777	330,242
Total	2,973,980	2,491,824	1,606,087	1,007,869

CLOVES have been in speculative request since last week, and a considerable advance has been made; but at yesterday's auctions the article was again a ¼d. lower, at 7¼d. to 7½d. for fair to good, and 8¼d. for fine *Zanzibar*.

COCA LEAVES.—To-morrow a few bales of fine quality will be offered, including leaves grown in Ceylon and in Java.

COCAINE firm. German makes in bulk are held at from 15s. 6d. to 17s. per oz.

COCHINEAL remains quiet, and in very limited demand.

COPPER (SULPHATE) quiet and lower since last week. Spot is quoted at 24½, June at 23½.

CREAM OF TARTAR has had a sharp advance this week, business having been done in first crystals at prices ranging from 94s. to 97s. per ton. On the spot the drug is scarce, and quoted at 96s. to 97s., while for forward-delivery 98s. 3d. per cwt. "c.i.f." terms is wanted.

CROTON-SEED.—Only 10 bags brown mixed *Ceylon* seed were shown to-day, and sold at the low price of 11s. per cwt.

CUBEBS.—Five cases very dry berries from Bombay of weak flavour, slightly stalky, and mixed with pepper, are held at 23½, an offer of 22½ being refused. It is rumoured that a considerable consignment is on the way, but in February last only 11 piculs were shipped from Java, bringing up the total since July 1, 1888, to 174 piculs.

CUMIN SEED neglected, and still tending lower. Only a few unimportant lots were sold at to-day's auctions.

CUTCH is quiet, but steady. The exports from Rangoon between January 1 and April 20 have been:—1889, 8,560 tons; 1888, 9,330 tons; 1887, 6,050 tons. In Liverpool the following prices are quoted:—*Y three stars* in slabs, 32s. to 32s. 6d.; *Flag BB*, 30s.; *Star B*, 28s. to 28s. 6d. per cwt.

CUTTLEFISH.—Good hard white, partly bold, bone from Bombay sold at 5d. per lb.; ordinary, partly discoloured, at 3½d. per lb.

DAMIANA LEAVES.—The American market is more liberally supplied now, and Californian leaves are offering at 9d. to 9½d. per lb.

DRAGONSBLOOD.—Several lots were offered to-day, but there is an absence of demand, and only a few packages were sold, good red saucers at 6½. to 6½. 7s. 6d.; fair block, 6½. 5s.; for bright red seedy saucers 7½. 10s. is the price.

ERGOT OF RYE sold at lower prices to-day, small but sound *Spanish* at 1s. per lb. For another lot of good clean *Spanish* ergot 1s. 3d. per lb. was refused.

GALLS.—*Turkey* galls remain very quiet, although holders seem rather anxious to sell. *China* and *Japan* galls are also quiet, and beyond a small sale of the latter (sifted) at 62s. per cwt. no business has transpired this week.

GAMBIER firm and dearer. On the spot sales have been made at 27s., for March-April 26s. 9d., and June-July 26s. per cwt. The shipments from Singapore to all ports for the first four months of the year have been:—1889: 10,680 tons; 1888: 11,995 tons; 1887: 10,555 tons.

GAMBOGE.—Fourteen cases were sold to-day at pretty good prices; ordinary ricey and discoloured pipe at 10½. 2s. 6d. to 10½. 5s.; common dull pipe at 9½. 17s. 6d.; bold run pieces, off colour, at 9½. 12s. 6d. per cwt.

GOLDEN SEAL ROOT reported lower at 1s. 6d. to 1s. 7d. per lb. "c.i.f."

GUINEA GRAINS are still firmly held in Liverpool, but the high rates are checking business, and only a small trade at 28s. 6d. to 30s. per cwt. is reported.

GUM ARABIC.—Privately the market has been very quiet. At auction to-day several parcels were sold, fair pale crushed Trieste siftings, without reserve, at 12½. 10s.; good small glassy drop, of Senegal character, 9½. 2s. 6d. per cwt. For good soft coarse palish *Cape* siftings 95s. was refused, and 67s. was also declined for small pale siftings. *Australian*, small dark red drop, sold at 41s.; ordinary block, 25s. per cwt. In *Senegal* gum Bas-du-fleuve is held at 7½., and Galam at 6½.; but there are no sales reported. At auction one lot sold at 6½. 10s. per cwt. The Liverpool holders of *Brazilian* gum have accepted somewhat lower rates, viz. 45s. to 46s. per cwt. for ordinary, at which figures they have been able to transact rather more business. Fine selected is held at 70s. per cwt.

GUM ASAFOETIDA.—Of 287 cases offered to-day 135 were sold at 35s. for good almond pinky, and 27s. to 32s. for fair partly drossy to good fair. The *Huzara* has arrived this week with 260 cases from Bombay.

GUM BENJAMIN.—Large quantities were offered at to-day's auctions, and met only lower offers. In the case of Sumatra gums, these were mostly accepted, and a decline of from 5s. to 15s. per cwt. resulted. In *Siam* gum our market is very much overstocked, and for a parcel offered on sale to-day, had it been sold only one-half would have been obtained of what it is said to have cost the importers about two years ago. *Siam*, dark common grain, mixed with wood, withdrawn; ordinary partly blocky grain bought in at 7l. 10s. to 8l. 10s.; ordinary drossy thirds held at 6l.; small to medium loose almonds limited at 16l. *Sumatra*, good bold almondy, partly false packed, in small boxes, 8l. to 8l. 7s. 6d.; good almondy centred seconds, partly old, rather grey borders, 8l. 5s. to 8l. 7s. 6d.; fair seconds, almondy centres, brown borders, 7l. 15s. to 7l. 17s. 6d.; fair grey, partly almondy, partly false packed seconds, 7l.; more drossy, mixed, 6l. 10s. *Penang*, fair grey seconds, partly dark and false packed, partly almondy, 6l. 5s. to 6l. 7s. 6d. per cwt.

GUM ELEMI.—Holders of fine Manila are again asking very high prices—40s. per cwt. for the best, and 38s. for good white.

GUM KINO.—Of 17 cases, 10 were sold very cheaply, at 25s. per cwt. for fair bright, being lower.

GUM MYRRH.—The demand is very slack indeed, and although 85s. was recently accepted privately for fair *Aden* sorts, that price could not be obtained now. Five barrels rather dark sorts sold at 79s. to-day.

HEMIDESMUS ROOT.—Arrivals have been pretty heavy lately, and values are coming down. Of 25 bales imported from *Madras* 8 were sold at 3d. per lb. for good brown root in small bundles.

HONEY.—*Jamaica* honey was in demand to-day at full prices, and about 70 packages sold at 37s. to 39s. for good thin brownish, 33s. to 35s. for brown, and 29s. 6d. for dark, being an advance of about 2s. on the previous sale rates. A parcel of half 'candied brown honey of very disagreeable flavour sold at 8s. per cwt. At auction in Liverpool a few days ago there was an exceptionally good demand for ordinary and medium grades of *Chilian* honey at 29s. to 30s., and fine at 40s. The *Potosi* has brought another 416 packages from Valparaiso this week.

IODINE and iodides firm, but unchanged.

IPECACUANHA.—Forty-eight serons were offered to-day, and there was a good deal of curiosity as to how the article would go, it having been reported that there had been a good inquiry privately at full rates, 7s. 6d. to 7s. 9d. per lb. Previous to offering his supply, the principal holder remarked that he had sold 50 serons for export in one line, and that he seriously suggested to the trade the prudence of buying to-day, as his principals certainly expected to raise the price. He would not be surprised if ipecacuanha were to be put up to 15s. per lb. The importers, owing to the altered rate of exchange and other circumstances, really made less on the article now than when the price was very much lower. This advice was not lost upon the trade, and with good competition practically the whole of the supply was sold at 7s. 6d. to 7s. 7d. (one lot 7s. 8d.) for fair partly stout root, and from 7s. 5d. down to 7s. 2d. for thinner or rather seriously damaged lots. There were 11 packages of ipecacuanha, said to be cured by a new and much more expensive process, which would be adopted more extensively if remunerative prices were obtained. These lots, which to all appearances only differed from the other root in being browner in colour, sold at the same prices as the other ipecacuanha.

IRISH MOSS.—There is scarcely any stock, and the arrival of the new crop is rather anxiously awaited.

ISINGLASS.—At the auctions held last Friday a quiet tone prevailed, and only a small quantity was sold at steady rates for *Brazilian* and *West Indian*, and a slight advance for *Penang* leaf and purse. Good to fine *Bombay* purse 2d. to 3d. dearer. *Saigon* steady.

JALAP still very firmly held. Three bales good Vera Cruz sold to-day at 7d. per lb.

MATICO.—Eight serons of fair greenish but stalky leaf are held at 6d. per lb.

MUSK.—There was no demand at to-day's auctions, but sales could only have been effected at lower rates. Privately small sales of fine blue-skin *Tonquin* pods, first pile, are said to have been made at 88s. per oz., but at auction that figure would scarcely have been obtainable, and thus the bulk of the supply was bought in. Over 30 caddies Pile I. were offered, of which one was sold at 78s. for small to medium old-fashioned pods, with skin and underskin, well trimmed. For the remainder of this parcel only 75s. 6d. was offered. Fine Pile II. small to medium blue-skinned pods, very broken, brought 75s.; Pile III., of which 14 tins were sold, 40s. for good thin-skinned pods, but damp, 33s. 6d. for dry, untrimmed, hard old-fashioned; 25s. to 25s. 6d. for bold to small untrimmed damp pods. China *Cabardine*, small to bold skinned well-trimmed pods, sold cheaply without reserve at 24s. to 25s.; for good but hard and skinny Russian cabardine 25s. is asked. *Trimnings*, 1s. to 1s. 4d. per oz.

NUX VOMICA.—Over 100 bags were sold rather cheaply to-day, small, earthy and damaged to fair *Bombay*, 7s. 9d. to 9s. 6d.; partly perished to fair silky *Cochin*, 9s. to 11s. per cwt.

OIL (CASTOR).—Fine *Italian* and *French* oils are still very firmly held. At auction to-day 50 cases good Calcutta seconds were sold at 3½d. per lb., which seems a slight advance. In Calcutta the market is firm, and with very small stock and high prices for seed a rise is anticipated.

OIL (COD-LIVER).—There is no alteration to report this week; the agents for one of the standard brands quote from 78s. to 80s. per barrel "c.i.f."

OILS (ESSENTIAL).—There is nothing new to report as regards *French* or *Italian* essential oils. In *Otto of Rose* a rather brisk business is said to be doing at unaltered rates. Of *Star-anise* oil 7 cases (Luen-Tai) were shown to-day, and 5s. 10d. per lb. would have been accepted, but only 5s. 9d. was offered, which shows a lower tendency. Dark-coloured *Cassia* sold at 3s. 4d., another and apparently better lot is held at 3s. 6d. per lb. Some *Cinnamon* "bark" oil sold very cheaply at 1¼d. per oz., but for good oil of cinnamon 1s. 3d. per oz. is wanted. The exports of cinnamon bark and leaf oil from Ceylon are considerably less this season than they have been for several years, the figures being between October 1 and April 4; 1888-89, 26,187 oz.; 1887-8, 46,292 oz.; 1886-87, 43,447 oz. *Citronella* oil is dull at ½d. to ¾d. per oz. for native brands. The following figures refer to the shipments of citronella oil from Ceylon during the periods between October 1 and April 4; 1888-9, 7,660,660 oz.; 1887-88, 4,870,162 oz.; 1886-87, 3,951,264 oz.

As regards the market for Mitcham oils we understand that during the last week or two there has been a good inquiry for Mitcham *peppermint* oil, and growers of the finer descriptions are now asking more money, 23s. to 24s. per lb. being quoted. It is difficult yet to give anything like an accurate forecast of the crop prospects, at the same time there is a more confident feeling amongst some growers of better prices this next season. That a considerable quantity of both old and young mint has been ploughed up is certain, and it is difficult to see where the young plant is to come from to replace it, as, owing to the bad season of last year, no very extensive "mint beds" were put out, from which the young plant is drawn; it looks, therefore, as if a shorter crop than usual might result this season. An *American* drug-house points out that at the present season, when the planting out of the roots is about to commence, strong efforts are being made to bring down the price so as to frighten growers into reducing their acreage. At auction to-day 5 cases H.G.H. oil were offered, but there was no response at a suggestion of 13s. per lb. *Spearmint* oil is becoming scarce in the States, and the price has advanced to 9s. 6d. for bulk, and 11s. to 11s. 6d. for H.G.H. in bottles.

PATCHOULY LEAVES.—A second bale of West Indian leaves arrived this week. In appearance this variety shows a very fine green leaf of very pronounced aroma. At the auctions brown and stalky leaves imported *via* Singapore were offered at 4½d. per lb.

QUICKSILVER is quiet at 8l. from the importers. Second-hand quotations are a shade lower, say 7l. 15s. 6d.

QUILLAYA very firmly held at 14l. 10s. per ton, the entire Liverpool stock being in the hands of one firm.

QUININE lower. There has been very little doing since our last report but during the latter part of this week German in bulk has declined to 1s. 1d. and 1s. 0 $\frac{3}{4}$ d. per oz., at both of which figures business is said to have been done.

RHUBARB.—The market remains very firm, and holders are by no means anxious to part with their supply, while the arrivals are limited to two comparatively small consignments. At to-day's auctions only a few lots were reached, but some of these sold at exceptionally high prices, very much above the valuation. *Shensi*: Fair medium coat, partly rough, three fourths pinky, though rather grey, one-fourth spongy, flat, 3s. 6d.; ditto round, 3s. 6d.; small druggists' root, 2s. 3d. per lb. *High-dried*: Round common horny coat, rather wormy, 7 $\frac{1}{2}$ d. per lb. The *Antenor* brought 36 cases from Shanghai this week.

SARSAPARILLA.—A few lots sold rather cheaply to-day. *Lima-Jamaica*: First and second-class, damaged, 1s. 3d. to 1s. 4d.; common, 1s. 1d. Good red (native) *Jamaica*, 1s. to 1s. 1d. per lb.; common ditto, 7d. per lb. Ordinary *Mexican*, 4d. per lb.

SASSAFRAS.—Root bark is reported in small available supply in America, and quotations have been advanced to 4 $\frac{1}{2}$ d. to 5d. per lb. Sassafras root in logs 8l. 10s. per ton.

SENEGA.—There is no news of the coming crop yet, and no new root is expected to be available for shipment until well in July. The price now asked from America (where there is said to be a good demand) is 2s. 3d. to 2s. 3 $\frac{1}{2}$ d. per lb. "e.i.f."

SENNA.—Part only of the extensive supply catalogued for sale was reached to-day, and this was mostly sold at $\frac{1}{4}$ d. to $\frac{3}{4}$ d. per lb. for low darkish to dull brown and yellow mixed leaves. For a few slightly better parcels 1 $\frac{3}{4}$ d. to 2d. per lb. was paid; and for 2 bales fine bold green leaves, the very high price of 1s. 2d. per lb. was paid. This variety is very scarce.

SHELLAC.—This article has been flat and depressed throughout the week with the solitary exception of a passing show of firmness at Tuesday's "call." At the auctions on that day a rather considerable quantity was offered, consisting of:—

	Cases	Cases	
Orange lac.. ..	410	of which 306	were sold.
Garnet „ ..	361	„ 275	„
Button „ ..	129	„ 46	„
Total	900	627	

As compared with the preceding auctions, fine orange sold fairly steadily, second orange fully 2s.; garnet, 3s.; and button, irregularly lower. The following prices were paid:—Fine reddish out of condition ASSL, 81s.; a few lots, 82s.; good strong fair reddish, 65s. to 66s.; bright cakey out of condition, 63s.; ordinary dark, 51s.; *Garnet AC* fair, 53s.; AT dullish ruby, 51s.; BCB, 50s. to 51s.; OCO fine bright ruby at 51s. per cwt. The publication of unfavourable London statistics has had the effect of accentuating the decline in the article, and at to-day's call the quotations were:—

	May	June	July	Aug.	Sept.
	s. d.	s. d.	s. d.	s. d.	s. d.
Second orange TN sellers	66 0	66 0	67 0	69 0	68 6
„ buyers	62 0	63 6	64 6	65 0	65 0
Garnet AC sellers	52 0	53 6	55 0	55 0	55 0
„ buyers	51 0	51 0	51 0	51 0	51 0

TAMARINDS.—At the weekly spice auctions on Wednesday nearly 600 packages of the new West Indian tamarinds came up for sale, and were mostly disposed of at a decline; fair to good bright *Barbados*, 16s. to 17s.; *Montserrat* at 9s. 6d. to 10s. per cwt. The West Indian steamer this week brought 698 packages from the various islands.

TEA.—The China market is steady for all grades of Congou, and firmer for teas for price, with very light sales for the week. Common Shantam fetches 4 $\frac{1}{4}$ d., though not many sales are made, and common Kaisow must also be quoted at the same price. As regards better teas, however, the firmness is apparent rather than real, for there is a large quantity of good tea, both Moning and Kaisow, in the hands of importers, speculators, and dealers, and a good deal of this is likely to be cleared out for what it will fetch before new season's teas arrive. It is reported from China that the new crop of

Moning is heavy and good, but it is too early yet to attach much importance to these statements. A few Newmakes may arrive next week of the 1889 and 1890 crop, but it is stated that new Capers will not be here till the beginning of July. Assams are selling rather more easily than last week, fair Souchong at 6d., and good useful broken tea at 6d. to 7d. Fine to finest teas are in strong demand. The sales of Ceylon for Tuesday and Thursday were altogether unprecedentedly heavy, though last Tuesday's sale of 12,000 packages is eclipsed by 15,000 printed for next Tuesday. As was to be expected, many lots went very cheaply, and wonderful value was to be had on Tuesday in leaf tea from 6 $\frac{1}{4}$ d. to 8d., and in Pekoes under 1s. On the whole fine teas maintained their quotations, but all lower grades went at a distinct decline.

VANILLA.—A very large supply of over 400 tins was offered at auction to-day, and sold at irregular rates, but generally about 2s. lower, or, according to one of the brokers, at 3s. below the Mauritius parity. Good chocolate, 5 to 3 inch, 14s. to 22s.; fair ditto, 6 to 8 inch, 15s. to 19s. 6d.; good plump oily fresh uncrystallised, 5 $\frac{1}{2}$ to 8 $\frac{1}{2}$ inch, 13s. to 18s.; 8 to 9 inch ditto, 19s. to 20s.; slightly brownish cottony, 4 to 8 $\frac{1}{2}$ inch, 13s. 6d. to 14s. 6d.; fair small lean chocolate, 4 to 5 $\frac{1}{2}$ inch, 11s. to 16s.; common, 8s. to 12s. per lb.

WAX (BEES').—Good prices continue to be paid for *Jamaica* wax, which finds a ready sale. To-day the following rates were obtained:—Very fine pale yellow, 6l. 5s. to 6l. 7s. 6d.; good even orange, 6l.; brown mixed 5l. 15s.; red and grey mixed, 5l. 7s. 6d. to 5l. 12s. 6d.; pale to dark and dull grey, 5l. 5s. to 97s. 6d. per cwt.

THE GERMAN MARKETS.

HAMBURG, April 30,

OUR drug and chemical market was again extremely quiet last week, and nearly all changes which have occurred have been in the direction of lower prices. There is not much doing in spices, and pepper, pimento, and cassia can be had at less money.

The prices in this column are given in marks (11 $\frac{3}{4}$ d.) per 100 kilos. or per kilo (1 kilo. = 2lb. 3 $\frac{1}{2}$ oz., 50 $\frac{3}{4}$ kilos. = 1 cwt.).

BALSAMS.—*Copaiba* is firmly held at 5.40m. to 5.75m. for genuine qualities, and without supply in first hands. *Peruvian* without alteration, although it is said that the article has been more inquired for, and that some holders now want 8m. *Tolu* unchanged, at 2.85m. to 2.95m.

BARKS.—*Cinchona*.—A lot of 187 packages Porto Cabello brought again high prices, but of this article heavy quantities are expected this week, and lower prices are to be looked for. The price to-day ranges from 120m. to 135m., according to quality. A few parcels of flat yellow Calisaya—viz., 51 packages—were disposed of at 3m. to 4m.; further arrivals, about 80 packages, ex *Abydos*, are in sight. *Cascara sagrada* weaker: 6m. to 6 $\frac{1}{4}$ m.; July-August shipment, 1.75m. to 2m. In *Condurango* small sales have been made at 1.40m. to 1.50m.

HONEY.—*Chilian* is very steady and tending higher; 730 casks, ex *Abydos*, were already disposed of on delivery.

JALAP.—Holders still ask 125m., but there is no demand at these rates. Small shipments of the new crop are expected.

MENTHOL.—There is no new feature to report in the position of this article, and prices remain weak; 600 kilos. are offered at 9m.

OILS (ESSENTIAL).—*Star-anise* and *Cassia* are without alteration. *Peppermint* (H. G. H. brand) neglected, and 12 $\frac{1}{2}$ m. to 12 $\frac{3}{4}$ m. per English lb. would now be accepted.

SAFFRON.—105m. to 125m. Prices are very steady.

SEEDS.—Malta *Cumin* very dull and without any business. Fair quality is held at 62m. to 65m., according to quantity. *Sabadilla* is firmly held at 85m.

WAX (BEES').—*Chilian* in good demand; prices unchanged; 232m. Of *Mozambique* 60 cwt. sold at about 95m. *Japan* is still slowly declining in value; 92m. is asked for prime white.

THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, May 2.

At to-day's cinchona auctions 2,339 packages, nearly all Java bark, were offered for sale. Of this quantity, 1,964 packages were disposed of at an average unit price of 8 to 9 cents per $\frac{1}{2}$ kilo. (= $1\frac{3}{8}$ d. to $1\frac{9}{16}$ d. per lb.). Manufacturers' barks sold at 11 to 82 cents per $\frac{1}{2}$ kilo. (= 2d. to 1s. $2\frac{1}{2}$ d. per lb.) for quill, broken quill, and chips, and 13 to 19 cents (= $2\frac{1}{2}$ d. to $3\frac{1}{4}$ d.) for root. Druggists' barks, in long to broken quill and branch, sold at 6 to 64 cents (= 1d. to $11\frac{1}{2}$ d. per lb.), and root bark at 6 to 59 cents (= 1d. to $10\frac{1}{2}$ d. per lb.). The principal buyers were the Auerbach Quinine Factory, the Amsterdam Quinine-works, and Messrs. Zimmer & Co., of Frankfort-on-the-Main.

NEW COMPANIES.

THE INTERNATIONAL DRUG COMPANY (LIMITED).—Registered by R. Jordan, 120 Chancery Lane, W.C., with a capital of 6,000*l.*, in 10*l.* shares. Object, to carry on business as chemists, druggists, drysalts, oil and colourmen, &c., at 159 Stretford Road, Manchester. Registered without articles of association, and consequently the regulations of table A in the first schedule to the Companies Act, 1862, apply. The subscribers are: William Bourne, brace manufacturer, 9 Norman Road, Rusholme, Manchester; Peter Forrest, bookkeeper, 5 Monmouth Terrace, Rusholme, Manchester; Joseph Pass, pattern-card maker, 41 St. John's Road, Longsight, Manchester; Frank Bode, correspondent, 18 Parkfield Street, Moss Lane, E., Manchester; Anthony Violet, jeweller, 16 Barlow Terrace, Longsight, Manchester; Frederick Wm. Langsdorff, cashier, 15 Beaufort Avenue, Sale, Cheshire; William Maben, contractor, 29 Blantyn Street, Hulme, Manchester; George Hutton, teacher, 25 Heywood Street, Manchester.

BALY, SUTTON & CO. (LIMITED).—Capital, 20,000*l.*, in 10*l.* shares; formed to acquire and carry on the business of artificial and chemical manure manufacturers now conducted at Runham, near Great Yarmouth, by J. Baly and F. Sutton under the style of Baly, Sutton & Co. The first subscribers are:—J. Baly, 28 Camperdown, Great Yarmouth; F. Sutton, Norwich; G. Baly, Hardingham, Norfolk; H. Baly, 34 Silent Street, Ipswich; Mrs. Baly, 28 Camperdown, Great Yarmouth; H. Cox, Chester Place, Norwich; Mrs. Simpson, Horringer, Bury St. Edmunds; Miss E. A. Baly, 28 Camperdown, Great Yarmouth; Miss A. Baly, 28 Camperdown, Great Yarmouth; Miss E. J. Baly, 28 Camperdown, Great Yarmouth; J. Skelton, Thorpe; H. Ludlow, Hemsby, Norfolk. J. Baly, F. Sutton, G. Baly, J. R. Skelton, and H. J. Case are appointed the first directors. F. Sutton is appointed first scientific director, with a remuneration of 125*l.* per annum.

THE AUTOMATIC SCENT-FOUNTAIN COMPANY (LIMITED).—Capital, 20,000*l.*, in 1*l.* shares. Object, to carry on the business of manufacturers and exhibitors of scent-fountains of all kinds, whether automatic or not, for supplying scent. The first subscribers are:—P. Everitt, 47 Cannon Street, E.C.; A. Hendricks, Worthing; W. Bush, Artillery Lane, E.C.; R. Bush, Artillery Lane, E.C.; J. Bush, Artillery Lane, E.C.; M. R. Webb, J.P., Barbican Chambers, Aldersgate, E.C.; R. F. Webb, Barbican Chambers, Aldersgate, E.C. The number of directors shall not be less than two nor more than five. The first are W. E. Bush, R. A. Bush, P. Everitt, and A. Hendricks. Remuneration to be determined in general meeting.

DANIEL JUDSON & SON (LIMITED).—Capital, 60,000*l.*, in 1*l.* shares. Formed to acquire the undertaking and assets of Daniel Judson & Son (Limited), now in liquidation, and to continue the business of drysalts, &c., hitherto carried on by Daniel Judson & Son. The first subscribers are:—W. Dunstan, Springfield House, East Dulwich, S.E.; E. Jones, 27 Kildare Terrace, W.; F. Judson, 77 Southwark Street, S.E.; C. Sisterson, 131 Fenchurch Street, E.C.; C. Wood, 10

Wansey Street, Walworth, S.E.; J. Rundell, 5 Somerleyton Road, Brixton, S.W.; S. Thompson, 165 Fenchurch Street, E.C. The number of directors shall not be less than three nor more than five. The first are: C. Sisterson, E. S. Jones, H. Dunstan, and F. H. Judson. Qualification, 49 shares. Remuneration, 100*l.* each, and one-fifth of net profits after 10 per cent. dividend.

Scientific Prebilities.

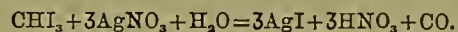
Castor Oil.—Hazura and Grüssner, as the result of experiments, have arrived at the conclusion that of all the fatty oils examined so far castor oil is the only one which contains no oleine.

Morphine.—Knorr, working on methylmorphimethine methiodide, has obtained results which show that of the three carbon atoms in morphine one is attached to the nitrogen atom as methyl, so that the alkaloid cannot contain a pyridine-ring.

Olive Oil.—Hazura and Grüssner have made a searching examination of the oxidation products of the liquid fatty acids of olive oil, the result of which points to the fact that both oleic and linoleic acids are present in the oil, and in all probability they exist in most non-drying oils.

Thymol gives a beautiful reaction with a few drops of solution of potash and the same of iodine and potassium iodide solution. The mixture is at first yellow, but on heating it becomes of a beautiful red colour, even if as little as 0.05 milligramme of the thymol is present.

Estimation of Iodoform.—According to Greshoff, silver nitrate acts readily on iodoform at ordinary temperatures as follows:—



The reaction takes about an hour and a half for its completion, and the nitric acid set free can then be titrated.

Acetone may be detected in the Urine by adding to the liquid a few drops of a concentrated solution of sodium nitro-prusside, and sufficient potash solution to make the mixture distinctly alkaline. An evanescent red colouration appears, and on the addition of acetic acid the liquid becomes dark violet if acetone be present.

A New Barometer Scale is proposed by James Asher in the *Scientific American*. Instead of saying the air supports a certain height of mercury, he states the ratio of given pressure to standard. The 760 mm. mercury column is divided into 1,000 degrees. The editor of the journal commends the proposal, but it is difficult to see where the advantage lies.

Tartaric Acid may be detected in citric acid by noticing the action of the solution upon potassium chromate. A solution of citric acid coloured with a drop of solution of the chromate remains unchanged for some days at common temperatures, even if a few drops of sulphuric acid are added, but tartaric acid converts the yellow chromate into a violet salt of chromic oxide, so quickly that in a few hours 0.5 per cent. of tartaric acid may thus be recognised in citric acid.

The Solubility of Chlorate of Potassium.—Mr. Alver Findlay, in a paper read to the Edinburgh Chemists' Assistants' Association recently, showed that at 40° F. the solubility of this salt in water is only 1 in 26. He also stated that the presence of tincture of perchloride of iron in a mixture materially increased the solubility of potassium chlorate, and that even in the cold chlorine was slowly liberated. The addition of glycerine was found to diminish the solubility.

Alcohol in Essential Oils.—Hager proposes to take advantage of the miscibility of glycerine with alcohol for the purpose of detecting the latter in essential oils. The mode of operating is to place in a graduated tube 8-10 cm. long and 7-9 mm. wide, 1.5-3 c.m. of glycerine (containing 20 per cent. of water), and after noting the volume, 2-3 c.m. of the essential oil is added and the volume again read off. After shaking and subsequent separation of the liquids, the increase in the volume of the glycerol is noted.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

The Medicine-stamp Act.—What is Wanted?

SIR,—I think the great grievance with regard to this Act is its tyrannical interference with the chemist in recommending his goods. If it were only levied on articles the makers of which claimed to have any occult secret or art, any exclusive right or title, or which have been or are sold under authority of letters patent, or held out as nostrums or proprietary articles, it would not be felt to be the gross injustice it is now. The intolerable burden appears to be tersely expressed in pars. 5 and 6, page 54, Alpe's "Medicine-stamp Duty." The repeal of the words "or as specifics or otherwise for the relief, prevention, or cure of any such distemper, malady, ailment, disorder, or complaint as aforesaid" from schedule 16 would be a great boon.

Personally, I think the Act is utterly unjustifiable, a simple anomaly in this free-trade epoch. No Liberal and few Conservatives could harmonise it with their principles of commercial policy. Shylock wants his 200,000*l.*; the chemists are practically "a feeble folk." *Hinc illæ lachrymæ.*

Yours faithfully,

30 Church Street, Camberwell, S.E., H. H. RUSBURY.
April 25.

SIR,—Permit me to remind Mr. B. S. Proctor that the first step in the movement for the amendment of the above Act was indisputably taken as long ago as May, 1887, by the Dover Chemists' Association; who then passed, at my instance, a resolution calling the attention of the Council of the Pharmaceutical Society to the harsh and arbitrary scope of the instructions for its working issued by the Board of Inland Revenue. The matter was graciously taken into consideration by the Council the following October. I am ashamed to seek to occupy your columns again so soon, but admission to the *Pharmaceutical Journal* has been twice denied to my letter on this subject. No doubt the fact that it treats of a matter affecting the common welfare of the trade, and emphasises the persistent neglect with which the present Council have treated such things, fully justifies the editor, in his own opinion, in burking what I had to say.

Market Square, Yours very obediently,
Dover, April 27. J. F. BROWN.

SIR,—I am obliged by such reply as you give to my queries on this subject. Had the editor of the *Pharmaceutical Journal* ventured to give as much the readings side by side might have been instructive. All my questions had a practical object bearing directly upon the experience of either myself or my neighbours in this subject.

The difficulty I experience in getting clear answers to questions from various authorities to which I have applied scarcely accords with the statement that the Stamp Acts are so intelligible that it is discreditable to chemists to acknowledge that they do not understand them. Nor is the differing of authorities among themselves satisfactory.

Newcastle, April 29. BARNARD S. PROCTOR.

SIR,—Allow me to reply to the above query, which you print in your issue of April 20 last. The Inland Revenue

authorities to grant stamped-medicine licences to registered chemists only, and raise the cost of licence to meet the deficiency caused to the Exchequer. This, were it done (and where are the objections?) would keep this branch of business in its right channel, which, I think, any sane person must concede belongs to the chemist.

Yours faithfully,
Melksham, Ex A. P. S.

Quinine-making in British India.

SIR,—With reference to the article at page 369, in your issue of March 16, concerning the cultivation of cinchona and manufacture of sulphate of quinine in India, will you kindly permit me to state that the process for the manufacture of sulphate of quinine adopted by the Indian Government was not invented by me, but by Mr. C. H. Wood, formerly quinologist and chemical examiner to the Government of Bengal, and professor of chemistry, Calcutta Medical College, and now of Holloway, London.

Yours faithfully,
Government Cinchona Plantations, J. A. GAMMIE.
Darjeeling, India, April 8.

Liq. Ammon. Acet.

SIR,—With your permission I will now supply the required corrections to my paper on the above subject, which appeared in your journal of March 30, 1889.

Page 448, col. 1, line 35, for "18 pints" read "15"; col. 2, line 17, for "6 fluid drachms" read "5"; col. 2, in the formula for the weaker liquor, for "376 grains" read "452"; and in the formula for the stronger liquor, for "3,008 grains" read "3,616." On page 450, for the table which appears there, substitute the following, which is the result of a new series of experiments:—

	Carb. Ammon. Grs. in Pint	Acet. Am. Grs. in Pint	Sp. Gr.
Normal	452	677.7	1.0158
1 = 2	904	1,355.5	1.0302
1 = 4	1,808	2,711.1	1.0576
1 = 5	2,250	3,325.2	1.0706
1 = 8	3,616	5,422.2	1.0946
1 = 10	4,520	6,777.7	1.1098

Also fourteenth line from end, for "3,008" read "3,616."

The chief objects of my paper, which were to introduce the lead test, and to point out the inconvenience of the introduction of a second strong solution, there already being a convenient one in use, remain unaffected.

Newcastle, April 29. BARNARD S. PROCTOR.

The Sale of Medicated Wines in Scotland.

SIR,—Your correspondent is in error anent the wine licence, as no chemist and druggist in the county has a licence such as I applied for; there are those who have a wholesale wine licence, but this licence does not require a magistrate's order, the Excise granting same on application; but could you say, Mr. Editor, if those acting under this licence are within the law in selling single bottles? I am afraid not.

Yours respectfully,
Glasgow, April 29. WALTER SLOAN GALBRAITH.

[A wine dealer's licence, 10*l.* 10*s.*, applies to the whole of the United Kingdom, may be had without a magistrate's certificate, and permits the sale of wine and sweets, for consumption off the premises, in any quantity.—ED. C. & D.]

Railway Charges.

SIR,—Now the question of railway charges is so much to the front, kindly allow me a little space to make a suggestion which, if carried out, would be a great boon to all having carriage to pay. It is that wholesale houses should weigh all packages and mark the gross weight on the address label before forwarding; thus the consignee could check the carrier's sheet and avoid being charged overweight, which is

no uncommon occurrence, and is passed over unsuspected by many. This is done by a few houses, and if it were made a rule by all it would be a saving and convenience to chemists, the majority of whom have no convenience to weigh heavy packages, and, consequently, are at the carrier's mercy. Perhaps wholesalers will give the suggestion their consideration.

Yours truly,
A. H.

Wellington, Salop.

Cash v. Credit.

SIR,—I should like some of my cutting *confrères* to give me the benefit of their experience of the cash system. I am conscious of having offended three customers who have regularly dealt with me hitherto. No. 1 inquired price of St. Jacobs Oil. I told her it was 2s. 6d., but for cash I sell at 2s. She asked for a bottle, and said she would pay in three days. When told she could have it, but the price would be 2s. 6d., she said then she would wait and get it at the grocer's, and would never enter my shop again. No. 2 asked for Seigel's Syrup. I said 2s. 6d. bottle for 2s. She would pay in two days. I told her it would be 2s. 6d. then. She said she could get it cheaper than 2s., but had always dealt here, and did think I would oblige her; has not been in my shop since. No. 3 asked price of St. Jacobs Oil. I said a 2s. 6d. bottle for 2s. He had one; did not pay; came again and had another bottle, for which he paid 2s., but has not paid for the first.

It is anything but agreeable to know familiar faces are getting scarce as customers, and I have sometimes asked myself the question, "Am I too severe in distinguishing between the cash and credit systems?" My contention is, if an article is booked for one hour it ceases to be a "cash purchase."

What is the usual practice also as to prices after shop is closed, and also on Sundays and holidays?

My shop is in a small town where one is known everywhere, but where influence goes a very little way when cash is under discussion.

Yours truly,
SUB JUDICE. (37/35.)

Commercial Travellers.

SIR,—In reply to "Manufacturer's" letter, we always welcome travellers with samples from sundry houses, as they show us the latest goods, and save a lot of trouble in making out sundry orders. As to those from drug houses, they are rather a —, as they take up a lot of time and do no good.

We should gladly accept an extra 1½ per cent. on our accounts, and dispense with their quarterly visits.

Yours truly,
April 27. WEST OF IRELAND. (38/37.)

How It Happened.

SIR,—Noticing the reference in your issue of April 27 to the action of the police authorities in Vienna in regard to Warner's Safe Cure, I beg to say that I have just returned from that city, where I have been investigating the circumstances of the case.

It appears that their action was owing to the fact that certain herbs used in the manufacture of Warner's Safe Cure are not included in the Austrian Pharmacopœia, and the official analyst was therefore not aware of their properties, and could not recognise them as legitimate. As the articles referred to are in the British and United States Pharmacopœias I do not anticipate much difficulty in securing the privilege of selling our goods as heretofore, and matters are progressing satisfactorily towards that end.

As regards the character of our advertising, it is very similar to what we do in this country; but just for that reason it is essentially different to the style of advertisements in vogue there, and, as anyone acquainted with the Continental way of regarding and commenting upon new departures well knows, it was criticised freely. That and the spirited demand for Warner's Safe Cure seem to have been the reasons why our article received the special attention of the authorities.

I might say that the matter is entirely municipal; it does not extend, or in any way affect the sales, beyond the limits

of that city. Warner's Safe Cure is in high favour with the apothekers and the public. The advance it has made since we introduced it, less than a year ago, is nothing less than remarkable.

Yours very truly,
G. G. MACPHERSON,
General Manager, H. Warner & Co.

No Connection.

SIR,—We note in your issue dated April 20, 1889, under "Applications for Debtors' Discharge," Mr. H. R. Lipscombe gives our address.

Such notice is entirely incorrect, as Mr. H. R. Lipscombe has had no connection with Frederick Lipscombe & Co., of 233 Strand and Queen Victoria Street, for now two years. Kindly insert correction early, and oblige

Your obedient servant,
May 1. FREDK. LIPSCOMBE & CO.

Something Definite.

SIR,—How many times has the question been asked—"What is being done to promote the interests of chemists and druggists?" and how many times has the answer been—"Nothing"? Such being the case, I say let the chemists and druggists take the matter into their own hands. Surely something can be done. I should suggest that a society be formed (in connection with your valuable paper), and then from that a College of Chemists might be founded. We have the Royal College of Physicians, the Royal College of Surgeons, and why not a Royal College of Chemists, having for its object the true interest of all its members, with by-laws something after the following?

All members of this college can practise as chemists and druggists.

All members of this college have the exclusive right (the medical profession and all other legal bodies excepted) of supplying by retail all kinds of medicine whatsoever, to be used or applied externally or internally, for the prevention, cure, or relief of any disorder or complaint incident to, or in anywise affecting, the human body; the preparing or dispensing of prescriptions and medical recipes, and also the exclusive right of supplying by retail all drugs and chemicals.

Before one can be accepted a member of this college he must take oath that he will not connect himself with any co-operative body, so as to under-sell or damage the interest of any member.

Of course many other clauses could be added with great advantage, and many amendments made; but all things must have a beginning, and I am of opinion that if such a scheme were started it would meet with the approval of more than three-quarters of the trade.

What chemists really require (and I consider it to be their right) is to monopolise the dispensing of prescriptions and all medical recipes, and the supplying by retail of all kinds of medicines (whether stamped or otherwise) and drugs and chemicals. This, I think, would settle the patent-medicine question, which has been so much discussed lately.

I firmly believe that if such a society were formed and a Bill drafted, it would meet with the approval of both Lords and Commons.

Will you, Sir, undertake to receive subscriptions if a list is started? I, for one, will do all I can to assist you in the matter, and shall be happy to receive any communication, remarks, or suggestions your readers may have to make on the subject. I would ask all who are in favour of this scheme to forward to me by post-card or letter their names and addresses, and what they would be willing to subscribe; we should then be able to tell what could be done in the matter. Trusting this will meet with your approval and that of the majority of chemists and druggists,

I am, yours faithfully,
PRIMROSE.

[There is not, in our opinion, the remotest chance of getting from the legislature anything like that which is here suggested; and we could not, therefore, assist even tacitly in promoting an enterprise which, as we think, would be labour wasted. If, however, any readers think well to co-operate with "Primrose," we will forward their letters to him if they distinctly mark the envelopes with the *nom de plume* given above.]

Envelopes for Counter Use.

SIR,—Will it not be an advantage to chemists to use envelopes for putting up many things similar to those for seeds? The penny pictorial flower-seed packets are typical of shape and quality; for larger kinds, buff cartridge. Name and address can be printed with a rubber-stamp where a limited number only are required.

Yours,
Neyland, April 27. GEO. E. STEPHENS.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Iron and Quinine Pills.

SIR,—Would you suggest a satisfactory method of making up the following formula? I have followed the plan of intimately mixing the ferri sulph. and potass. carb. separately with glycerine, and then together, finally adding the other ingredients previously mixed; but unless the mass is very soft I have not been able to roll it out without the pills crumbling, and after a few minutes have to work my mass up again with more excipient.

	Grss.
Quinine sulph. $\frac{1}{2}$	36
P. digitalis	18
Pot. carb.	72
Ferri sulph.	72
Ft. mass. Divid. in pil. 72.	

AJAX. (37/43.)

[See "The Art of Dispensing," pages 61-63, regarding the various methods for forming sulphate of iron and an alkaline carbonate into a pill. The above prescription requires the addition of 10 grains of tragacanth powder. Reduce the sulphate of iron to fine powder; triturate it with the tragacanth; add the quinine and digitalis; mix well; then add the carbonate of potash, previously reduced to fine powder. Six drops of glycerine may now be added, and the mixture massed with water; about 10 drops will be required.]

An Immiscible Liniment.

Hydrarg. oleat., 10 per cent.	5iv.
Lin. camph. co.	3iss.
M. Ft. lin.	

To be rubbed into the knee night and morning for ten minutes.

How should the above be manipulated to produce a miscible liniment? A solution will greatly oblige

A SUBSCRIBER. (37/39.)

Ae. Phosph. Dil. and Tr. Ferri Perchlor., &c.

39/53. *Brown* asks (1) why dilute phosphoric acid decolorises a mixture containing tinctures of digitalis and perchloride of iron? (2) Is there tannin in tincture of digitalis? (3) Why does the tincture colour a mixture containing tr. ferri perchlor.?

[(1) There is double decomposition between the phosphoric acid and the perchloride of iron; the solution of the resulting ferric phosphate is colourless. (2) Yes. (3) Ferric tannate is formed.]

LEGAL QUERIES.

37/60. *T. R. P.*—We should think your "toothache essence" label would not render the preparation liable to duty; but you might make sure by inquiry from Somerset House.

37/18. *Chemicus* asks if it would be legal to make and use for business purposes (without selling or intending for sale) a patented article? It would be illegal. The justice of this is obvious if the question were applied to an important matter. For instance, if X were to patent a valuable improvement in engines, would a great railway company be

justified in using his patent for their business purposes without any intention of selling?

37/47. *E. B.*—You cannot use the title "pharmacist" unless you have passed the Major examination of the Pharmaceutical Society (section 15 Pharmacy Act, 1868); you can describe yourself as a consulting family chemist and druggist; you are eligible for election as a member of the Pharmaceutical Society, but you must be so elected and pay the fees before you so describe yourself. The secretary of the Society, 17 Bloomsbury Square, will give you particulars of the conditions.

35/49. *W. F. G.*—In our opinion the words you propose to use, except the title "Dental Anatomist," would not infringe the Dentists Act. The title quoted might or might not be regarded by a Court as implying a special qualification. You would be wise not to employ it.

37/67. *Myrrh.*—If the wholesale druggist referred to is a registered chemist or druggist he has a legal right to sell cyanide of potassium either wholesale or retail. In any case he may sell it wholesale, and the transactions named would probably be regarded as coming within the range of wholesale dealings.

38/46. *Partnership.*—The title "wholesale druggist" may not be legally used by an unregistered person. The Pharmacy Act does not interfere with the sale by unregistered persons of carbolic, sulphuric, and hydrochloric acids, sulphates of zinc, iron, or copper, or acetate of lead.

13/270. *T. B.*—You can have no legal right to use the letters A.P.S. for a single day after your subscription to the Pharmaceutical Society expires.

39/31. *Qualified Chemist.*—The unqualified person can sell all the substances you name. He may sell all patent medicines whether they contain poison or not. Cantharidin hair-wash would not need a poison label, unless it should be a vesicating preparation of cantharides, and the sale of sweet spirits of nitre is not protected at all.

39/59. *J. H. A.*—A person who has obtained membership of the Pharmaceutical Society under the 18th clause of the Pharmacy Act has no right to describe himself as a pharmaceutical chemist.

39/36. *Balance.*—The Board of Trade have declined to publish a scale of permissible errors in weights. Slight variations between weights and the standards must occur, and inspectors may use their discretion as to marking as correct such weights as depart to a slight extent from the standard. You had better, therefore, consult your inspector as to your weights.

37/35. *Sub Judice* puts the following case:—An apprentice, who boards with his master and family, but who sleeps out in a room furnished by his master, is taken ill and stays away. Who ought to defray the cost of his keep during his illness? The indenture stipulates that medicine and medical attendance are to be paid by apprentice's guardian. The apprentice did not really ask if he might stay away because of illness, and refused food prepared and sent to him. [The point raised has never been decided, according to the best authorities. It was, however, decided in the case of *Regina v. Smith*, 8 C. & P. 153, that a master was legally bound to provide medical attendance for an apprentice, but not for a servant, in case of illness or accident. In this case the indenture of apprenticeship appears to provide that the guardian should supply medicine and medical attendance. It is a nice point as to what may be the meaning of medicine in a case of this kind. It is probable that wine, beef-tea, and the like, which are usually

ordered by medical men in cases of illness, would come under the head of medicine. This point was referred to in the leading case of *Wennall v. Adney*, but was not decided. In this particular case the master appears to have done all that could reasonably be required of him by sending food to his apprentice—provided, of course, that such food was of a kind that he might expect his apprentice to be able to eat. It is very unlikely that any court would hold that a sick apprentice (especially one who stayed away without leave, although this point would not materially affect the case) is entitled to indulge in all sorts of luxuries to be paid for by his master. If this case is fought out it will be extremely interesting both to the legal profession and the general public. The law requires to be settled so as to define masters' obligations in respect of the kind of food, medicine, &c., they are bound to provide for apprentices who are suffering from illness or accident.]

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.

38/42. **Liquid Dentifrice.**—We give several formulæ in the DIARY.

Soap-bubble Solution (R. A.).—See June 16, 1888, page 797.

39/20. **Dispenserships in Army and Navy.**—See Educational number, Sept. 22, 1888.

30/65. **Red Marking-ink.**—May 19, 1888, page 668.

35/16. **An Apprentice.**—The two best books you can read in the meantime are the "British Pharmacopœia" and the "Art of Dispensing." Winter Blyth's "Food: its Adulteration, &c." (Griffin, 16s.) will give you all information regarding adulteration of food-stuffs.

Canoe Caulking.—*Indagator* (37/66) says:—"Alpha" might find the composition sold by Mr. Tagg, Tagg's Island, Hampton, the most suitable for caulking the seams of his canoe.

37/69. **F. R. Kendall.**—Any one of the following books may be used for the Student's Corner work:—Slatter's "Inorganic Chemistry" (Murby, 2s. 6d.), Valentine's "Inorganic Analysis" (Churchill, 7s. 6d.), and Attfield's "Chemistry" (Gurney & Jackson, 15s.). For a beginner the first is especially adapted.

35/74. **J. L.**—We cannot undertake the analysis of patent medicines which are not sent to us in original bottles.

35/43. **J. P. (Palermo).**—**Liquor Ferri Peptonati.**—The following is a method given by Dieterich for making this preparation:—Take 10 grammes of pure peptone (free from common salt), and dissolve by the aid of heat in 50 grammes of water, and with the solution mix 120 grammes of liquor ferri oxychlorati (dialysed iron). Evaporate the mixture to a syrupy consistence and scale. This forms the **Peptonate of Iron**. The liquor is now made by dissolving 16 grammes of the peptonate in 884 grammes of distilled water, and adding 100 grammes of brandy.

26/4. **H. H. P.**—**Sal Soda** is carbonate of soda. The original sal was somewhat impure. Bicarbonate is not meant.

37/17. **Vet.**—Jack is the Edinburgh, and Nimmo the London, publisher of "The Farmer's Veterinary Adviser," and 10s. 6d. is the published price. James Law is the author of the book. No doubt it can be obtained anywhere, if you give the name of the publisher.

36/39. **Apprentice.**—**Mercurial Ointment** is used for keeping fire-irons free from rust. For the bright parts of a bicycle we should use a solution of hard paraffin in benzine.

36/47. **Black Wash.**—**Tinctura Anthemidis.**—This correspondent complains that 24 oz. of rectified spirit is insufficient to saturate 1 lb. of chamomile flowers, as directed in the "Extra Pharmacopœia." Mr. Martindale writes to us on the subject:—"I have never found any difficulty with the tinct. anthemidis (Ex. Ph.). The flowers used by me are the single and fresh flowers, i.e., not the dried flowers. It can only be made when the flowers are in season. They may vary a little according to whether it is a wet or dry season. Perhaps your correspondent has been using the dry flowers which make a preparation with quite a different aroma, &c." (2) The carminative soothing syrup may be considerably improved in taste by the addition of 2 grains of saccharin to each ounce. (3) **White Pomade** of excellent odour may be made from the French *pommades aux fleurs*, such as are used for making perfume essences. These may be combined in sufficient quantity with a mixture of nut oil 4 parts, and white wax 1 part, or with white vaseline simply. Oil of ylang-ylang imparts a very rich odour to pomades, which is quite unlike the common hair-oil scents.

38/1. **Thistle.**—There is no reason why you should not use fresh acetate of morphine to make the hypodermic injection, instead of adopting the roundabout official process. 320 grains of the acetate will make 8 fluid oz. of a 1 grain in 12 minims injection. The B.P. injection is 1 grain in 10 minims.

37/7. **Nono.**—Thanks for yours. If you mix the powders and then add the syrup you will find a difference. Of course you may add more syrup, if it is required.

268/37. **B. E. H.**—**Fresh Decoctions and Infusions** are very generally strained through a little tow packed in the bottom of a funnel. If this is not used, calico gives the next best results.

38/64. **Sapolio.**—Does 22/56 in our issue of April 13 not suit you?

38/49. **Fiasco.**—**Spermatorrhœa.**—Read Dr. Hargreave's book, which is advertised in this journal.

38/39. **Constant Reader.**—You will find full particulars regarding the manufacture of concentrated infusions in the "Art of Pharmacy" (the special treatise of our 1887 DIARY, now out of print). In the case of calumba, take 8 oz. of the root, and in the case of quassia, 2 oz. of the chips, for a pint of the finished product. In each case $4\frac{1}{2}$ oz. of rectified spirit is required to preserve the preparation. Dilute the spirit to 10 oz. with distilled water, moisten the quassia or calumba with it, pack in a percolator, add the rest of the spirit, and after twenty-four hours percolate. Add distilled water until the percolate measures 12 oz. Reserve this portion, and continue to percolate with 16 oz. of water, evaporating this second portion to 4 oz., and mixing with the reserved portion.

38/42. *Iodi*.—(1) **Glycerine and Cucumber**.—The original formula was: White glycerine soap, $\frac{1}{2}$ oz.; cucumber ointment, 1 oz.; distilled water, 32 oz.; jockey club, $\frac{1}{2}$ oz. The improved directions to which we think you refer are: Dissolve the soap in about 3 oz. of water, and put in a mortar of rather large capacity made thoroughly hot. Add the cucumber ointment to the soap, the heat of the mortar will dissolve it, and stir thoroughly till incorporated. Gradually add the remainder of the boiling water, and stir continually until cold; then add the perfume. We notice that Rouse & Co. advertise a cream or paste in this journal which requires the simple addition of water to make the glycerine and cucumber. (2) See "The Art of Dispensing" regarding the coating of pills.

38/32. *Wide Awake*.—We take the following formula for **Sulphonal Mixture** from "The Art of Dispensing":—

Sulphonal	3ss.
Pulv. tragacanth. co.	gr. vi.
Syrupi	5ij.
Aquæ ad	3iss.

Rub the sulphonal in a mortar to fine powder; add the compound tragacanth powder; mix; then add the water and syrup to make a uniform mixture.

If any flavour is required, use a drachm of tincture of fresh orange peel, which should be added to the sulphonal and tragacanth to assist the mixing.

38/15. *G. M. Dunn*.—The prescription is a bogus one.

38/43. *Bunion*.—We have seen an ointment composed of equal parts of belladonna and iodine ointments afford relief in cases of **Enlarged Toe-joint**.

265/3. *H. R. M.*—To remove grease from a bronzed chandelier we should use turpentine. Few things of the grease nature can resist that.

37/33. *Apprentice*.—Applications for admission to the Preliminary examination should be addressed to Mr. Bremridge, 17 Bloomsbury Square, London, W.C.

38/14. *Tropic*.—**Hernia** is now radically cured by a surgical operation, which has been carried out with great success in a large number of cases. There are no hospitals specially devoted to the treatment of the disorder, but there are few general hospitals to which some specialist on the subject is not attached. Amongst those whose names are identified with it are Messrs. Arthur Barker, W. H. Elam, Wm. MacEwen (Glasgow), T. Savage (Birmingham), and Thornby Stoker. Dr. M. K. Hargreaves has recently stated in this journal that the cure to which you refer is valueless. It consists in the use of astringent lotions, &c.

36/35. *Lemonade*.—Your syrup evidently requires to be treated with animal charcoal. Use the bone-black in granular powder in the proportion of an oz. to 1 pint. Shake well up with the syrup, allow to stand over night, then strain through a felt or flannel bag. It will decolourise the syrup and remove the feculence.

37/34. *F. G. W.*—**Rubbing Oils**.—For the label as amended we would suggest the following formula:—

	Oz.
Oil of turpentine	4
Natural camphor oil	2
Olive oil	12
Capsicum	$\frac{1}{2}$
Alkanet root	$\frac{1}{4}$

Bruise the capsicum and alkanet, digest in the mixed oils for three days, and strain.

Carbolic oil has produced fatal results when applied to burns.

38/48. *F. V. G. T.*—Barnard Smith was the author of the book on the metric system published by Macmillan at 3d.

38/31. *Arvensis*.—The best book, and, considering its character, the cheapest, for studying **British wild flowers** by natural analysis is Frederick A. Messer's work, published by David Bogue at 10s. 6d. Hooker's "Student's Flora of the British Isles" (Macmillan) is an indispensable work.

40/63. *Puzzled*.—Perhaps you could give us a little closer reference to the report than that it was published "some time since," though we cannot promise to explain the discrepancy if you do.

79/18. *R. W. G.*—The proportion of unoxidised iron in **Ferrum Redactum** (Japanese Pharmacopœia) is the same as the British—not less than 50 per cent.

33/47. *Blackfriars*.—We do not know of any satisfactory process, except freezing and noting the congealing-point, which will be higher than the normal if resin has been added to the oil.

Nil Desperandum (39/1) writes us a lengthy letter in support of the arguments for putting up one's own specialties. *N. D.* has rescued two decaying businesses from ruin and rendered them flourishing by following this course. He insists on the importance of having good formulæ, and putting everything up neatly.

39/17. *S. H.*—See reply to *S. D. & L.* (39/44). (1) It has been decided in a court of justice that alum may be added to baking-powder without infringing the law relating to the adulteration of bread with alum. (2) Yes.

39/29. *Majaline*.—(1) We do not have it. (2) See page 467 for cement formula, and (3) the **DIARY** for malt and oil. (4) An unqualified person may put up and sell chlorodyne as a patent medicine. With the exception of labelling, the Pharmacy Act does not apply to patent medicines containing poisons.

39/37. *Vaseline*.—Fresh fruit is said to keep well in jars filled with chloroform vapour. Place a layer of cotton-wool at the bottom of the jar; sprinkle a few drops of chloroform upon it, and after a short time pack in the fruit. Then place a layer of wool with a little more chloroform on the top, and cork well.

39/54. *Koko*.—For $\frac{1}{2}$ oz. of 12.5-per-cent. solution of cocaine hydrochlorate 5s. would not be an unreasonable price to charge; but keep the position of the customer in mind.

40/64. *Swaffham*.—Remove as much as possible of the "fur" from the kettle by mechanical means, and finish with spirit of salt. You must wash it well afterwards.

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

31/61. Manufacturers of ice-making machinery.

33/60. Formula for foxes'-lung paste.

BEETLE POISON.—Mr. L. Ledain, Paris, has taken out a patent in the United Kingdom (No. 13,574, 1887) for a paste for destroying insects and beetles. It is made by melting 50 grammes of phosphorus in 1 litre of hot water, and subsequently adding 1,300 grammes of rye-flour, 5 grammes of onion juice, 5 grammes of tartaric acid, and 5 grammes of carrot-juice.

PALATABLE.

RELIABLE.



THIS LABEL

AND THE WORD

KASAK

WERE REGISTERED

January 11, and February 1, 1888,

UNDER THE

Patents, Designs, and Trades Marks Act, 1883.

SOLE IMPORTERS

OF

APOLLINARIS WATER,

FRIEDRICHSHALL WATER,

HUNGARIAN APERIENT WATER

(DIAMOND MARK)

THE APOLLINARIS CO., LIMITED,

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SPECIAL PRICES ON APPLICATION.

**FINEST NEW SEASON'S
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COD LIVER OIL**

**FINEST
ITALIAN CASTOR OIL**

("INSIPID,")

SELECTED DRUGS AND PURE CHEMICALS.

Preparations of the British and
other Pharmacopœias.

Preparations of the B. P. C. Un-
official Formulary.

Lozenges of the British and Throat
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Pills — Pearl-coated or Gelatine-
coated.

**GRANULAR EFFERVESCING
CITRATE OF MAGNESIA.**

**EFFERVESCING SALINE.
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DRUGGISTS' SUNDRIES.

Telegraphic Address—

"ASHILL LONDON."

Monthly Price Lists on application, and
special quotations for quantity.

REGISTERED TRADE MARK.



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ARTHUR S. HILL & SON

(ESTABLISHED A.D. 1755),

Wholesale and Export **Druggists**
and Manufacturing Chemists,

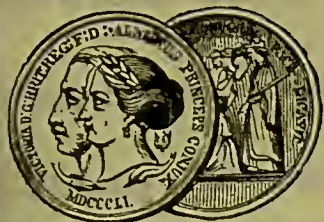
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Established
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Howards & Sons

QUININE, CINCHONA ALKALOIDS,

Acetates of Soda & Potash.
Acids, pure.
Ethers, pure & methylated.
Antimony preparations.
Benzoic Acid & Benzoates.
Bicarbonate of Potash.
Bicarbonate of Soda (Howards').
Bismuth preparations.
Borax & Boracic Acid.
Bromides of the Alkalies.
Caffeine.
Caffeine Citrate, P.B.
Camphor Bells, Blocks, & Flowers.
Citrate of Iron & Quinine, P.B.

Citric Acid & Citrates.
Cocaine and its Salts.
Corrosive Sublimate.
Ext. Cinch. Liq. P.B., & H. & S.
Ext. Cocæ Liq. P.B.
Iodides of the Alkalies.
Iodoform.
Liq. Bismuthi et Am. Citratis.
Magnesia.
Mercurials, Calomel, &c., &c.
Rochelle Salt & Pulv. Seidlitz.
Spirit preparations.
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Urethane. &c., &c.

AND OTHER PHARMACEUTICAL CHEMICALS.

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LOFTHOUSE & SALTMER, MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles
QUOTATIONS ON APPLICATION.

SOLUT. ÆTHERIS NITROSI (Æther. Hyponit.)

1 part to 5 Sp. Vini Rect. 56 o.p. makes Sp. Æth. Nit. 850.
This concentrated preparation is carefully drawn in our own laboratory, is highly recommended, and is daily finding increased favour with the trade for making Sp. Nitre, as required for use, and thus avoiding the risk of a development of free acid, which is more or less prevalent in Sp. Nitre that has been drawn some time. Price in Winchester Quarts, 8s. per lb., net.

Importers of Cod Liver, Castor, and Olive Oils; Otto de Rose, and all Essential Oils; Valerian; Saffron; Vanillas; Fruit Essences; Carmine; Aniline Dyes; Bees Wax, &c., &c. Application for Special Quotations invited.

CLARIDGE & CO.

MANUFACTURING CHEMISTS,

WARWICK, ENGLAND,

RECOMMEND THEIR

PURE PREPARATIONS OF PEPSINE

Guaranteed to answer the tests of all authorised authorities, and superior to any made, whilst the price is considerably lower.

THIS TESTIMONIAL IS SELECTED AMONGST OTHERS.

DEAR SIRS,
We have received a supply of your "Pure Pepsine Porci," and find that 20 grains dissolve (or digest) three hundred and sixty grains of dry fibrin. This result we consider to be very satisfactory, and we can therefore confidently recommend your preparation.
To Messrs. CLARIDGE & SON, Warwick.

BIRMINGHAM, November 23rd, 1887.

Yours faithfully

SOUTHALL, SON & DYMOND.

Also eulogised by DR. LETHEBY in his Lecture before the Society of Arts in London.

PRICES—Pepsine Porci Pur., 2s. per 1 oz.; Pepsine, B.P., 2s. per 1 oz.; Pepsine, best English (Amylated), 30 % pur., 10s. per lb.

SPECIAL CHARACTERISTICS.—Superior activity in digestive power, purity, freedom from objectionable odour, and good keeping properties have secured for 25 years the confidence and preference for Messrs. CLARIDGE'S Preparations by the leading London houses.

Order direct, or through any London firm or Shipping house.

Special discount for 25 ounces and upwards.

SALICYLIC ACID

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SALICYLATES

(KOLBE'S)

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Telegrams—"FUERST LONDON." Telephone No. 462.

SINGLETON'S 250 YEARS' WORLD-WIDE BY FAR THE BEST GOLDEN EYE REPUTATION KNOWN REMEDY FOR ALL DISORDERS OF THE EYES AND EYELIDS. OINTMENT REGD.

KNOWN TO THE PUBLIC UPWARDS OF 250 YEARS AS A CERTAIN CURE FOR
INFLAMED EYES, WEAK SIGHT, SORE EYES, SCORBUTIC ERUPTIONS, PILES, BRUISES, ETC.
Recommended and frequently used by DR. WARE, DR. ALEXANDER, MR. CRITCHETT, and other Eminent Oculists.

CAUTION.—None offered for Sale can be genuine unless the words SINGLETON'S GOLDEN EYE OINTMENT are engraved on the Government Stamp and round the Pot, and the Bill of Directions in which it is enclosed bears the name and address—

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BRAND.

BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

ANALYSIS.

Bicarbonate of Soda	...	...	...	...	...	97.20
Mono Carbonate of Soda	...	...	...	...	...	1.90
Sulphate of Soda	...	...	...	...	...	trace
Chloride of Sodium	...	...	...	...	...	.035
Moisture	...	...	...	...	...	.82
Insoluble	...	...	...	...	...	nil

PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers, Bleachers, Dyers; Glass, Paper, and Soap Makers.

SODA CRYSTALS

OF THE FINEST QUALITY.

BRUNNER, MOND & CO., LIM.

*Manufacturers of Soda by the Ammonia Process
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NORTHWICH, CHESHIRE.

PEPTONATE OF IRON

SOLE MAKERS

PEPTONE OF MEAT

REC. TRADE MARK

DENAEVER'S

LIQUID PEPTONES STERILIZED

Free from microbes!
Keep good for ever in all Climates.
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DENAEVER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.

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Of all Chemists and Wholesale Houses.

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ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
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SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors 1s. 3d. each, including postage. Vaccinations by appointment. F.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to

EDWARD DARKE, Secretary

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KEMP'S "WHOO PALINE"

FOR

The Relief and Cure of Coughs, Colds, Bronchitis, Whooping-Cough, Loss of Voice, Difficulty of Breathing, and all Affections of the Chest, Throat, and Lungs.



PRICE 1s. 1½d. and 2s. 9d. PER BOTTLE.

Sold by all Chemists and Patent Medicine Dealers.

DR. RENNER'S ESTABLISHMENT FOR VACCINATION WITH CALF LYMPH

186 (late 228) Marylebone Road, London, N.W.

VACCINATION FROM THE CALF DAILY FROM 11 TO 12 O'CLOCK.

Reduced price of Calf Lymph (daily fresh).

Tubes	Large	2s. each, or 3 for 5s. 6d.
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Points	Large	1s. " " 2s. 6d.
	Small	9d. " " 2s.
Squares	2s. 6d. each.

Registered Telegraphic Address—"VACCINE LONDON."

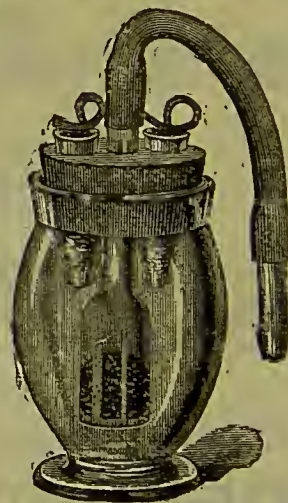
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Awarded the SILVER MEDAL at the Brussels Exhibition, 1885.

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CHLORIDE OF AMMONIUM

CATARRHAL
THROAT
AND
EAR
AFFECTIONS.



LOSS of
VOICE
BRONCHIAL
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HAY FEVER

INHALER

YIELDS a plentiful cloud of Neutral Vapour with little effort on the part of the patient.

Illustrated Prospectus, with the "History of Chloride of Ammonium as a remedial agent," free by post.

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All mixing, cutting, rounding, picking, &c., is accomplished with the aid of steam machinery, by which means we attain uniformity in composition and size such as cannot be equalled by hand-work.

For finish, and general good appearance, they will compare most favourably with any in the market.

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The only oval gelatine-coated pills of English manufacture in the market.

Our "Prices Current" contains an extensive list of coated pills, showing formulæ and prices, together with a number of TESTIMONIALS. Estimates for private formulæ supplied.

MALTED FOOD

FOR INFANTS & INVALIDS.

PRICES.—In Bulk, 42/- per cwt.; Half-pound Packages, 2/- per doz.; One Pound Packages, 7/6 (subject to Patent Medicine Discount).

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FOR USE IN CONSTIPATION.

AS FIRST INTRODUCED BY OURSELVES.

The Lancet says our Suppositories are "most useful and convenient additions to the Materia Medica."

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Ordinary (Pessary size) 1s. 6d. dozen.
Small, for Children 9d. "

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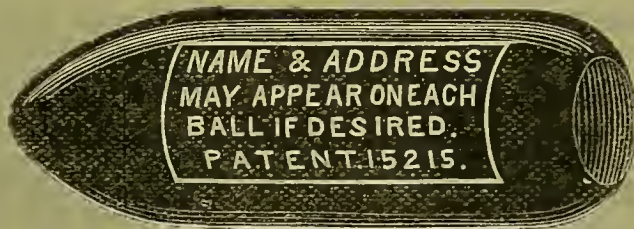
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COATED HORSE BALL.

(PATENTED.)



"The obvious superiority of these balls over the old paper-wrapped articles will impress the most stolidly conservative of farmers."—The Chemist and Druggist, October 27, 1888.

No. 4.—Alterative Balls	24/	per gross.
" 5.—Astringent Balls	24/	"
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UPWARDS OF A CENTURY AND A HALF.
Prize Medals were Awarded to us at the Great International Exhibitions 1851, and 1862, for THE GENERAL
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For neatness and attractiveness in appearance have no equal in the market; the boxes can be opened and contents examined and closed up again without rendering the packet unsaleable. The MEDICINAL BOXES have the properties and uses, with full directions for preparation, and the name and address of our customer, printed on each box, and a supply of descriptive pamphlets for distribution sent to every purchaser.

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GENTLEMEN,—We desire to call your attention to the fact that we are advertising a Specific for Neuralgia called "LETHE," and will be happy to forward you a sample for gratuitous distribution on receipt of card with address.

LETHE. Why is it a success?

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Because it does what it professes. It is an absolute "Specific" for Neuralgia and pain of every description.

LETHE. Cures a larger proportion of cases than all the other remedies combined.

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LETHE. Has been used in private practice for 15 years, and has an enviable reputation due to its marvellous results.

Yours truly,

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DAMIANA WAFERS

THE MOST POWERFUL
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Permanently restores those weakened by early indiscretions, imparts youthful vigor, restores vitality, strengthens and invigorates the BRAIN AND NERVES. A positive cure for IMPOTENCY and Nervous Debility. Prompt, Safe, and Sure. 4/6 per box, 6 for 22/6. Usual discount to the Trade. Send for Circular.

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WHOLESALE AND EXPORT BOTANIC DRUGGISTS,
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COMPOSITION ESSENCE.

This Genuine Essence of Composition will be found superior, both in medicinal properties and aromatic flavour, to that generally sold. The demand for this article being a large and increasing one, all chemists will find it a profitable addition to their stock.

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FLUID EXTRACTS. NEW REMEDIES. MEDICINAL HERBS IN PACKETS.

Special Agents for Messrs. Parke, Davis & Co.'s Fluid Extracts, Concentrations, Pressed Herbs, &c.

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PURE FLUID MAGNESIA.

As Prepared by the Discoverer, SIR JAMES MURRAY, M.D.

FOR OVER 60 YEARS IN USE AS AN EXCELLENT REMEDY FOR ALL DISEASES OF THE STOMACH AND LIVER.

In Summer time, and in warm climates, it is invaluable, as it cools the Blood and improves the system generally.

It is the only known Drug which cures that most unpleasant of all maladies, viz., a HEADACHE. In cases of Gout and Indigestion it is indispensable.

AND IN THE NURSERY IT IS INVALUABLE. SPOKEN OF MOST HIGHLY BY ALL THE PROFESSION

Sold by all respectable Chemists, in Large sized Bottles (the 1s. size containing nearly Double the Quantity usually sold at that price), at 1s., 2s. 6d., and 3s. 6d. each. Also in Winchester Quarts for Dispensary and Hospital use.

CAUTION.—Observe the SIGNATURE of the Inventor on EVERY LABEL.

SIR JAMES MURRAY & SON, CHEMICAL WORKS, TEMPLE ST., DUBLIN.

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TOWLE'S CHLORODYNE

In COUGHS, ASTHMA, BRONCHITIS, INFLUENZA, &c., its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the Throat, promoting Expectoration, and speedily and effectually subduing the Cough.

It soothes the weary aching of CONSUMPTION, relieves the harassing Cough, and often prevents those sleepless nights so trying to the sufferer.

In CHOLERA, DIARRHŒA, DYSENTERY, &c., it has proved itself a most valuable specific, quickly relieving the pain and spasms, and seldom failing to check the disease; for which property, as well as for its value in Sea Sickness (for which it is the best remedy known) it should be an indispensable article in every emigrant's outfit.

TESTIMONIALS.

"Superior to every other I have tried."
F. H. GREEN, M.R.O.S.,
Rochdale Dispensary.

"Peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections."
ALFRED ASPLAND, F.R.O.S.,
Consulting Surgeon to Ashton Infirmary.

"I have used it largely in Spasmodic and Painful Affections, Bronchitis, and Neuralgia. It has the property of being readily combinable in ordinary prescriptions—an advantage over all similar preparations."

R. TRAFFORD WHITEHEAD, M.R.O.S.

A Surgeon writes:—"In Diarrhœa, Colic, Ague, Spasms, I have found it relieve more pain and canse more joy than any other article that can be named. Has proved itself a specific against sea-sickness."

Island Bridge, Dublin.

"I am pleased to say that although I have not finished a quarter of the bottle (2s. 9d.) the pain has left my chest, and the cough is almost well."—J. BROWN.

Immediately Relieves

COUGHS,
CONSUMPTION,
ASTHMA,
BRONCHITIS,
TIC,
SPASMS,
HYSTERIA,
DIARRHŒA,
DYSENTERY,
CHOLERA,
CRAMP, AGUE,
Sea-Sickness, &c.

REVISED PRICE LIST.

	Retail.	Per doz.
	s. d.	£ s. d.
Towle's Chlorodyne	1 1½	0 8 6
Ditto	2 9	1 3 0
Ditto (3 fluid oz.)	4 6	1 16 0
Ditto (8 ")	11 0	4 13 0
Liq. Chlorodyni (Original and only Genuine Preparation) ½ lb. ..		1 10 0
Ditto ditto ½ lb. ..		2 14 0
Ditto ditto 1 lb. ..		4 16 0
Winchester Quarts (6 lb.) 7/6 per lb., bottles free.		
Towle's Antibilious Pills	1 1½	0 8 6
Ditto	2 9	1 3 0
Towle's Chlorodyne Lozenges }	0 7½	0 5 3
Ditto Jujubes }	1 1½	0 8 6
Ditto in bnk, bottles free, containing 1 lb., 2/9 each.		
Ditto ditto 1 lb. 10 oz., 4/6 "		
Ditto ditto 4 lb., 10/- "		
N.B.—The Commissioners will allow them to be sold by the retailers without further duty, provided they are simply wrapped in paper, and not enclosed in a box, bottle, or packet.		
Thornton's Celebrated Toilet Cream	1 0	0 9 0
Ditto	1 6	0 14 0
Ditto	2 6	1 4 0
Amboline (Registered Trade Mark)	2 6	1 4 0
The Thornton (Red) Lotion (Stamped)	2 6	1 4 0
Thornton's Paragon Hair Wash	1 0	0 9 0
Ditto	2 6	1 4 0

Posters, Bills, and Showcards on application.

£5 worth (assorted or otherwise) Carriage Paid.

7 lb. Lozenges and upwards stamped with Chemists' own name, free of charge.

A. P. TOWLE & SON

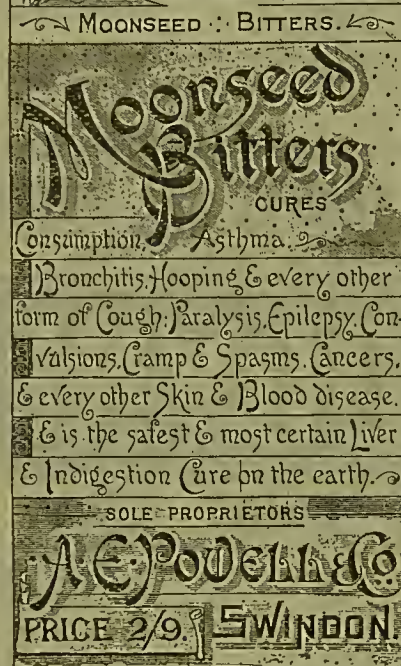
75 BACK PICCADILLY,
MANCHESTER, December, 1888.

"CUTTING COUNTERACTED."

MOONSEED BITTERS brings FULL PRICES.

WHY?

Because every one who retails Moonseed Bitters has to sign an Agreement or Contract in the following terms:—



MOONSEED BITTERS.

Above is Facsimile of
THE WRAPPER LABEL
of the 2/9 size.
It is also sold at 4/6.

MOONSEED OINTMENT.

Retails at 1/1½, 2/9, 4/6 per box.

Memorandum of Agreement made this.....day of..... 1889, between A. E. POWELL & COMPANY, of Swindon in the County of Wilts, Proprietors of the Moonseed Bitters and Moonseed Ointment (hereinafter called the "Vendors"), of the one part and of (hereinafter called "the Purchasers"), of the other part.

Whereby it is mutually agreed between the said parties hereto as follows:—

In consideration of the Vendors selling to and supplying the Purchasers with Moonseed Bitters, Moonseed Ointment, and other preparations manufactured and sold by them (hereinafter termed "the Goods") at their usual prices, the Purchasers will observe and perform the following terms and conditions:—

1. The Purchasers to sell the Goods retail for full printed prices only, and for each and every Bottle or Box of Moonseed Bitters, Ointment, or Pills sold by him or them at any less price, without the written consent of the Vendors, the Purchasers shall pay to the Vendors the Sum of Twenty Shillings in the nature of a penalty, to be recoverable as ascertained liquidated damages.

2. The Purchasers not to supply any Wholesale House nor to sell the Goods wholesale to any Chemist or Druggist or Medicine Vendor who will not previously enter into an Agreement to retail the same at prices in accordance with the preceding Clause No. 1 of these presents.

All Purchasers who have signed a similar form of Agreement to the foregoing will be supplied upon the Vendors' usual trade terms, but those Purchasers who do not sign a similar form of Agreement to be supplied upon the following terms only, namely:—RETAIL, 4s. 5d. for each and every 4s. 6d. Box or Bottle, 2s. 8d. for each and every 2s. 9d. Box or Bottle, and 1s. 0½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. WHOLESALE, 4s. 4d. for each and every 4s. 6d. Box and Bottle, 2s. 7d. for each and every 2s. 9d. Box or Bottle, and 11½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. This Agreement and the terms and conditions herein contained to remain in full force and virtue for the term of 7 years from the first day of March, 1889.

As witness the hands of the said parties hereto the day and year first above written.

We call attention to the important steps which we have taken to prevent our specialities being retailed at less than the advertised prices, and we ask the co-operation of the Trade in maintaining the integrity of the scheme whereby the sale of our preparations may always be retained by the legitimate trade. We will not only endeavour, by all means in our power, to prevent the advertised prices being "Cut," but will give Chemists every assistance and facility for making this a large as well as a paying business.

Please write for Terms and Form of Agreement. NOTE that we allow retailers of Moonseed Bitters 2s. 6d. per thousand for the Distribution of Pamphlets.

A. E. POWELL & CO., SWINDON.

WE REPLY TO OUR CRITICS.

The announcement made to the Trade through THE CHEMIST AND DRUGGIST on January 26th last immediately absorbed attention, and, as is always the case with novel movements, a little scepticism. For example, some critics tried to knock the bottom out of our scheme by saying that our goods could be obtained through ordinary channels at the ordinary rates. To that we reply that:—The scheme commenced on March 1st, when we hoped all the Wholesale Houses would have their stocks of the MOONSEED BITTERS and OINTMENT exhausted. From that date we start fair, and we shall do our very utmost to prevent cutting and protect the Trade. Recently some Chemists have, through the columns of THE CHEMIST AND DRUGGIST, done their best to belittle the scheme which we propose. We HAVE AN ANSWER TO EVERY CRITICISM, and here are a few:—

What Critics say.

- (1) Messrs. Powell's proposals will not help the chemist very much in solving the question as to "retail prices of patents," seeing that the large advertisers could not, if they would, adopt their methods.
- (2) Messrs. Powell's method cannot be adopted by others.
- (3) That traitors will kill the scheme.

Our Reply.

We are among the largest advertisers. We have initiated the method, and if all other makers of Proprietary preparations had done the same in the early days of their success cutting would never have been heard of. What we are anxious to do now is to ensure that every bottle of Moonseed Bitters and every box of Moonseed Ointment will be sold at the full advertised prices. "A little leaven leaveneth the whole." In time all Proprietors of Patent Medicines may adopt our method. Is this not what the trade wants?

We are not particularly anxious to have our original device stolen by our rivals, but there is no reason why they should not adopt a similar scheme, and with the determined support of the trade success is certain.

Our reply to that is short. No traitor survives starvation, and those who violate the bond receive no more supplies. Traitors violated our unstamped papers, and for that reason we threw them open to the trade from June 1888 to March 1889.

We respectfully call the attention of the Drug Trade to the Terms of the Agreement as given on the opposite page, and ask their support in maintaining prices, and in extending the profitable sale of the article.

[2]

A. E. POWELL & CO., SWINDON.

R C TREATTDunster House Mincing Lane
LONDON

IMPORTER OF

Musk Civet Ambergris Attar - of - Rose**ESSENTIAL OILS**

APPLICATION.

ON

QUOTATIONS

AND

PRICE LIST

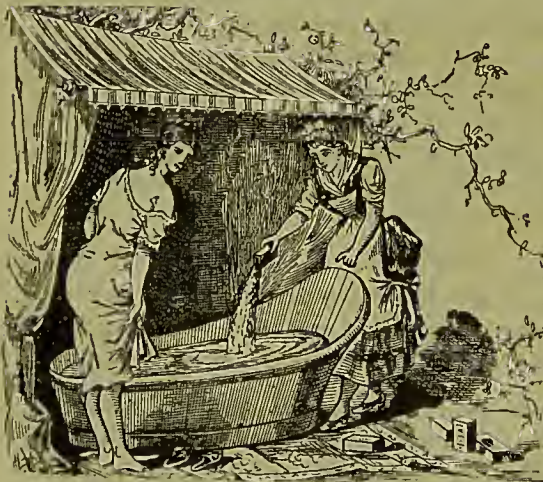
WHITE AND SOUND TEETH.**JEWSBURY & BROWN'S****ORIENTAL TOOTH PASTE.**

This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

ORIENTAL AROMATIC SALTS,
FOR BATH AND TOILET PURPOSES.

The ORIENTAL AROMATIC SALTS, when dissolved, render the water very soft, and impart a most agreeable and refreshing perfume that can be diffused with advantage in a room where the air is close and depressing.

The ORIENTAL AROMATIC SALTS strengthen the tissues, perfume and invigorate the body, preserving it from contagious diseases, and cleanse the pores, thus facilitating the cutaneous transpiration so necessary to life.

The ORIENTAL AROMATIC SALTS are unrivalled for beautifying and preserving the Skin, rendering it soft and velvet-like; and for keeping the complexion perfectly bright and clear.

They are indispensable in the Bath as well as in the Bedroom, and should be used by everybody. In most cases of Skin Diseases these Salts will be found invaluable.

Sold in Bottles at 1/6. Wholesale of the Patentees and Manufacturers—

S. TRAVADO & CO., 27 Jewry St., E.C., LONDON.

To be had also of Messrs. BREIDENBACH & CO., Perfumers to the Queen, 157b NEW BOND STREET, W.

**COLLAPSIBLE TUBES.**METAL BOTTLE CAPS
AND
SCREWED BOTTLES.For Paints, Perfumes, Soaps, Creams, Oils, and all Fluid
or Semi-Fluid Substances.**H. G. SANDERS & SON**
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DOUGLAS, ISLE OF MAN.

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HAIR NUTRITIVE & SEDATIVE
CREAM

The only preparation for the Hair recommended by leading Physicians for the removal of Scurf, allaying irritation, preventing greyness and baldness, and producing a

LUXURIANT HEAD OF HAIR.

JOHN A. WALCOTT, M.D., M.R.C.S., says:—"I feel much pleasure in being able to recommend (with confidence) your Nutritive Cream in all cases of irritation of the scalp, accumulation of dandruff, and loss of hair, in each of which I have freely used it, and with *unfailing* success."

In bottles, 1s. 6d., 2s., 2s. 6d., 3s. 6d., and 5s., of all Perfumers and Chemists.

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SPECIALITY OF
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DISTILLERS AND EXPORTERS,
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Agent for Great Britain—G. P. BAKER, 19 Ivy Lane, LONDON, E.C.

THE OTTO OF ROSE which this house distils and exports is known above all by the absolute purity of its quality and the unexcelled sweetness and strength of its odour. It is guaranteed to be the finest essence produced in the famous Rose Valley of Bulgaria.



Until further notice, an extra Bottle of the Perfume will be sent gratis with first order for one dozen, to open and place on Counter.

EUROPEAN DEPÔT:

67 HOLBORN VIADUCT, LONDON, E.C.

Gold Medal, Hygienic Exhibition, Ostend, 1888.



This entirely new and excellent Health-giving Preparation softens the Water, gives it a Most Delicious Odour, and Beautifies the Complexion in an extraordinary way. Should be in every bathroom and dressing room. Pasta Mack of all respectable Perfumers and Chemists throughout the world. Beware of Worthless Imitations See the Trade Mark on every box.

Sole Manufacturer and Inventor, H. MACK, Ulm a/D.

Export from all Wholesale Houses

Wholesale Agents for Great Britain, OSBORNE, GARRETT & CO., London, W.

IMMENSE SALE.

SOLD EVERYWHERE.

WOODS' ARECA NUT TOOTH PASTE,

As used and recommended by Madame Marie Roze, the Prima Donna.

PRICE, 6d. and 1s. per Pot.

CAUTION.—SEE "WOODS, PLYMOUTH," ON EACH POT.



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Flint Glass Bottle Works,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.
THE HEART SCENT BOTTLE (Reg.), for Salts or Perfume.

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

Price, Plain or Fluted (in 5 GROSS lots):—Assorted WHITE and COLOURED, 12/6 per gross.
N.B.—The Caps for these will be fitted, if desired, with indestructible washers, to resist the action of ammonia, which destroys cork in a short time.

METAL SCREW-CAPPED LIMES, in White Flint, Actinic Green, or Amber.
The Best Bottle for Glycerine or Pills. Prices: 1 oz. 13/6, 2 oz. 15/-, 3 oz. 18/-, &c. per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered.

Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

TELEGRAPHIC ADDRESS—"FOREFRONT LONDON."

[3]

Established over 25 Years.

Buyers are respectfully solicited to compare with other Manufacturers.

**GASOGENES, SYPHONS,
FEEDING BOTTLES,
AND ALL KINDS OF
BOTTLES**

CHEAPER THAN EVER.

Price for Black-fitted Feeding Bottles for quantity, 37s. per gross, packed in one dozen cardboard boxes.

Prices can be had on application. Special quotations will be given for quantities.
Seltzogenes, 3-pint Nickel Plated, 7/6 each.
" 5 " " 11/6 "
" 8 " " 18/6 "
Syphons, 18/6, 19/6, 21/ per doz.; if Nickel Plated, 3/ per doz. extra.

Telegraphic Address,

"ASSORTED LONDON."

JULES LANG & CO.

16 Hatton Garden, London, E.C.
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DISPENSING BOTTLES & PHIALS

The following are our greatly Reduced Prices:—

CLEAR BLUE TINTED.

3 and 4 oz.	6/6 per gross.	12 oz.	11/6 per gross
6 and 8 oz.	7/6 "	16 oz.	15/6 "

**WHITE MOULDED PHIALS.
LONG OR SQUAT SERIES.**

1 oz.	3/0 per gross.	1 1/2 oz.	4/3 per gross
1 oz.	3/6 "	2 oz.	4/9 "

Prompt attention to country orders. Packages 1/ each, allowed for if returned. Sample bottle sent free on application.

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GLASS BOTTLE MANUFACTURERS,

25 Francis St., Tottenham Court Road, London, W.C.

Established upwards of 70 years.

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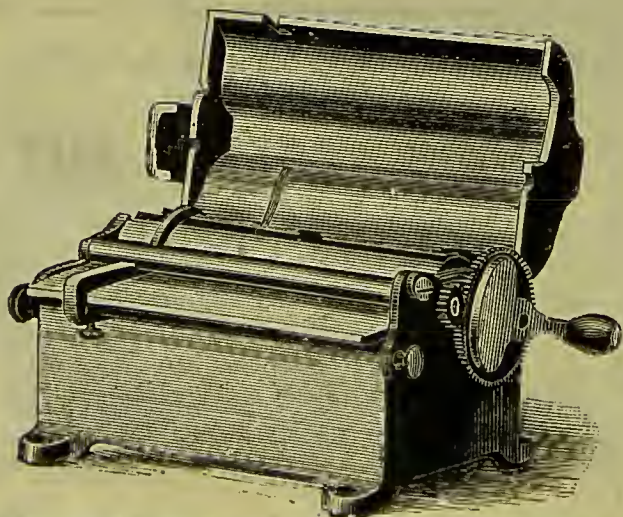
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**MACHINES FOR MAKING
COMPRESSED TABLETS.**

MACHINES FOR GUMMING

Either an entire surface or the edge only of Labels,
Wrappers, &c.

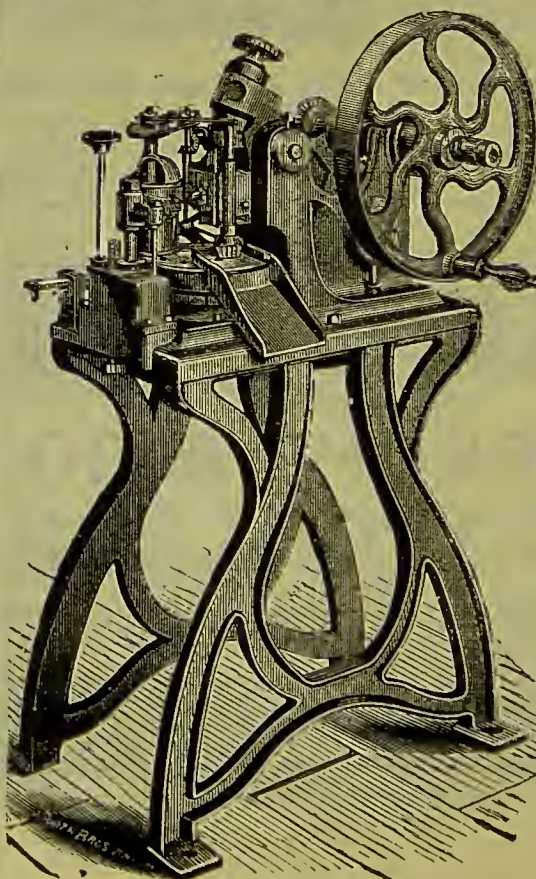


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Of various Sizes and Prices.



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THE ALEXANDRA.
(Earthenware Cap.)



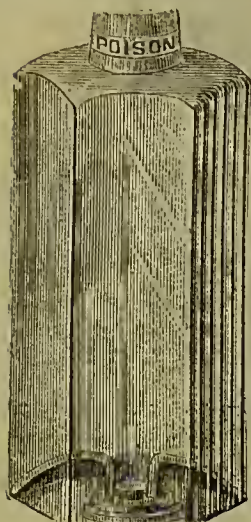
THE EXPORT.
(Glass Screw Stopper.)

	White Fittings.			Black Fittings.		
Alexandra, China or Wood Top Corks ... per doz.	3/8	—	—	4/3	—	—
Alexandra, 2nd Quality, Wood Top Corks ..	3/-	—	—	3/6	—	—
Alexandra, Earthenware Caps.....	—	8/-	11/-	—	8/6	12/-
Alexandra, Earthenware Screw Stoppers ..	—	—	11/-	—	—	12/-
Alexandra, Glass Screw Stoppers	4/-	8/-	11/-	4/6	8/6	12/-
Export, China or Wood Top Corks	3/6	—	—	4/-	—	—
Export, 2nd Quality, Wood Top Corks ...	2/9	—	—	3/3	—	—
Export, Earthenware Caps	—	7/3	—	—	8/-	—
Export, Glass Screw Stoppers	4/-	7/6	—	4/6	8/-	—

FOR FURTHER PARTICULARS SEE QUARTERLY PRICE CURRENT, PAGES 65 AND 66.

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

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**HERMES' PATENT.
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PRICES, PER GROSS, fitted with Boxwood-topped Corks, complete:—

3-oz., 18/6 ... 4-oz., 20/- ... 6-oz., 22/- ... 8-oz., 25/-

The Patentee has appointed as his Sole Manufacturers,

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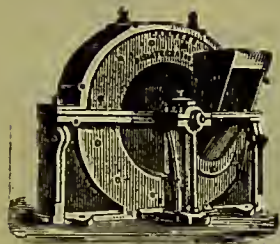
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NEARLY 1,300 IN USE

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Rotary Pill Cutters, Piping Presses, Gelatine Pill Coating Machines, for large or small quantities, Pill Counting Apparatus, &c., &c.

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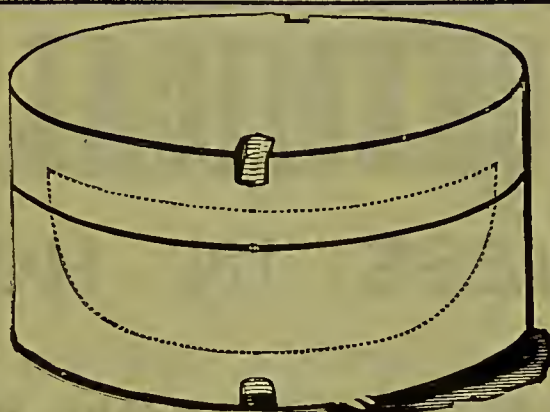
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*Are claimed to be the most perfect
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Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

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1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6 per doz.

THIN for DISPENSING—

$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.
1/7	1/8	1/10	2/-	2/4	3/-	3/8	5/-	6/- per doz.

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Nos. 1	2	3	4	5
Capacity 12	25	66	100	160 ezs.
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It speedily saves its own cost.

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Never Fails to KILL all of these vile Pests.

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During the coming season, and it will be a great convenience to them, and a source of profit to yourselves, to stock these. They are put up in a convenient form and will retain their saleable condition for any length of time.

Wholesale Terms, 3s. per gross net, Three months for 50-gross lots.

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In Original Kegs, 160s. per cwt., 1s. 8d. per lb.

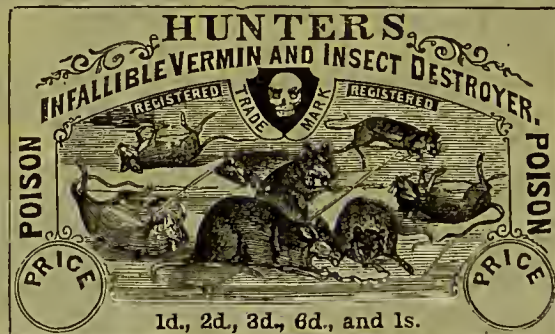
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time, in any climate.Testimonial from Mr. JAS. THOMPSON, Farmer, Carlisle,
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VERMIN DESTROYER.' It is the best thing I ever used,
having often cleared stackyards with it of both rats and
mice in a day or two."

By all the Wholesale Houses. Shippers will oblige by sending for terms.

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CARBOLIC POWDER, £4 TON.

1-ton lots and upwards.

CARBOLIC PINK POWDER, 5/-, 7/6, and 10/- per cwt., in bags or casks.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES

Holding 1½ lbs. (usual 1/- size), 3/- doz. Ditto, LARGE SIZE (usual 1/6 size), holding about double quantity, 4/8 doz.

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CRUDE CARBOLIC ACID (Brown), 9d., 1/-, and 1/6 Gallon; also in patent stoppered bottles, labelled, ½ pint (1/- size), 4/- dozen.

DARK SANITARY FLUID (to be used with 80 parts of water, making a *milky fluid*), 2/- PER GALLON.

10 PER CENT. DISCOUNT OFF ABOVE PRICES FOR CASH WITH ORDER.

All goods delivered free in London or suburbs, or to rail or docks. THE CHEAPEST HOUSE IN THE TRADE.

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THE ONLY COMPOUNDS SANCTIONED BY H.M. BOARD OF TRADE.

FLUID, POWDER, AND SOAP.

"PERFECT PURIFIER," in 6d. and 1s. bottles, and in bulk at 5s. per gallon. SANITARY POWDER, in 6d. and 1s. tins, and in bulk. HOUSEHOLD AND DISINFECTANT SOAP, from 4d. per lb. TOILET SOAP, in fancy boxes, from 1s. each. DOG AND POULTRY SOAP.

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A Refined Preparation of Jeyes' Disinfectant Fluid, for Medical and Surgical use, and a perfect non-poisonous substitute for Carbolic Acid, Iodoform and Corrosive Sublimate. In 4-oz. and 12-oz. bottles, at 1s. 1½d. and 2s. 9d., or in bulk at 10s. per gallon.

JEYES' 10 % SURGICAL SOAP,

The best Antiseptic and Disinfectant Soap for Use by Surgeons after operations, &c. In Metal Boxes at 1s.

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 GOVERNMENT DISINFECTANT 	
CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & ½ Packages	
CARBOLIC POWDER (PINK) in TINS 6d & 1/-	CARBOLIC SOAP No 1 & No 2
CARBOLIC FLUID in 6d 1/ & 1/6 STOPPERED BOTTLES	CARBOLIC & GLYCERINE SOAP in ¼ lb. TABS
THE GOVERNMENT SANITARY CO., LONDON E.	
FREE FROM POISON. AGREEABLE IN SMELL.	TO BE HAD FROM ALL WHOLESALE DRUGGISTS.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2-Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order.

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

ESCHMANN BROS. & WALSH,

Inventors and Manufacturers of the

SOFT SILK FLEXIBLE CATHETER,

GUARANTEED WITH WOVEN EYES.



To be had of all Surgical Instrument Makers and Wholesale Houses.

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WHOLESALE BRUSH MANUFACTURERS

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OFFER LOWEST QUOTATIONS, ON APPLICATION, FOR

FINEST RECTIFIED SPIRITS OF WINE,
Methylated Spirit and Finish; Finest Orange Wine, Sherries,
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PURE GRAIN SPIRIT 56 O.P., B.P.... 18/5

Do.

Do. DOUBLE DISTILLED 18/9

Cash with Order. Reductions for Larger Quantities than Two Gallons.

SAMPLES FREE.

STEPHEN SMITH & CO., BOW, LONDON, E.

S.V.R.**SPECIALITY FOR PERFUMERY.**

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Price, 19/-, 56 o.p.; 19/6, 60 o.p. Cash with order

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METHYLATED SPIRIT & FINISH

Supplied of the best quality in wholesale quantities by

J. & W. HARVEY & CO., Distillers, Yoker, GLASGOW.

LONDON AGENTS—JAMES CHAMBERS & CO., 23 BIRCHIN LANE, CORNHILL, E.C.

PURE SPIRITS OF WINE.(STEAM STILL'S
ONLY.)

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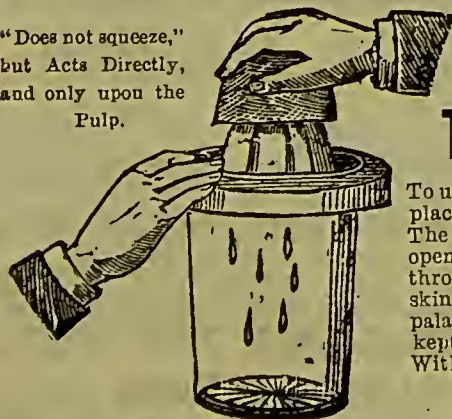
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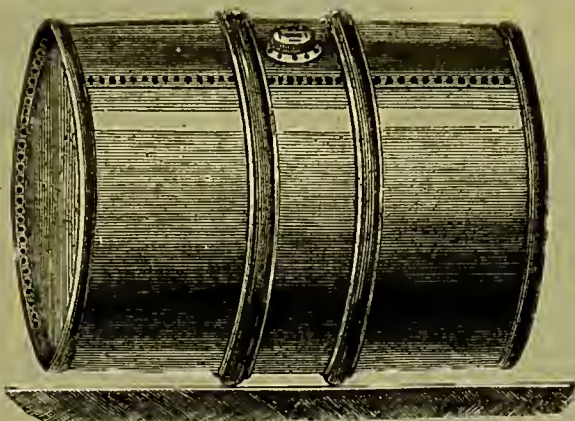
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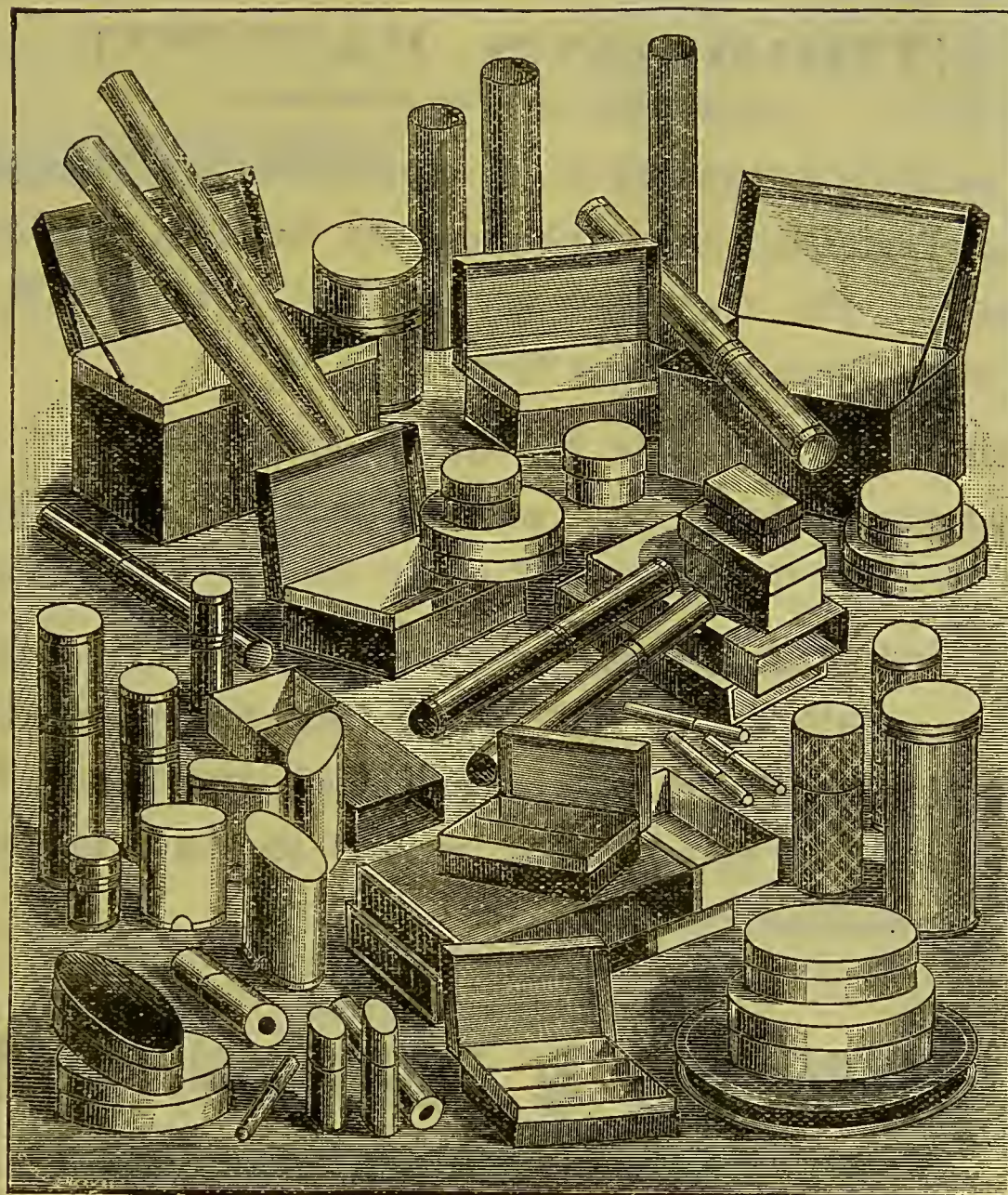
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