

REGISTERED AS A NEWSPAPER.

Subscription: **10/- PER ANNUM**, Post Free to any Part of the World.

BRANCH OFFICE,  
AUSTRALASIA:  
NORMANBY CHAMBERS,  
MELBOURNE.

ESTABLISHED IN

ENGLAND ... .. 1859.  
AUSTRALASIA .. 1885.

[Registered for Foreign Transmission.]

Vol. XXXII.

MARCH 24, 1888.

{ SUBSCRIPTION, 10s. PER ANNUM, INCLUDING  
DIARY, POST FREE THE WORLD OVER.  
SINGLE COPIES 4d. EACH POST FREE.



ARRIVAL OF NEW SEASON'S

# GOOD LIVER OIL

FROM FRESH AND SELECTED LIVERS, AND OF EXCEPTIONAL QUALITY.

**BRIGHT, LIMPID, AND OF THE MOST DELICATE FLAVOUR.**

The fishing contiguous to our stations has been highly satisfactory this season, the fish being large and in prime condition, consequently the yield of oil is good and remarkably fine quality.

Our oil is, in fact, of unusual excellence, and we are in a position to offer it on advantageous terms.

We shall have pleasure in forwarding sample and price on application.

## Men & Hanburys,

MANUFACTURING, PHARMACEUTICAL, AND ANALYTICAL CHEMISTS,

## WHOLESALE AND EXPORT DRUGGISTS,

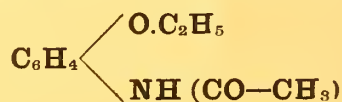
ROUGH COURT, LOMBARD STREET, LONDON.

Works—BETHNAL GREEN, LONDON.

Oil Manufactories — LONGVA AND KJERSTAD, NORWAY.

THE NEW ANTIPYRETIC  
**PHENACETINE**

(Para-Acetphenetidine).



PHENACETINE has been already used with marked success in the treatment of Neuralgia, Vomiting, Pneumonia crouposa, Typhus Abdominalis, Morbilli, Sepsis Puerperalis, Pleuritis, Pyæmia, Typhus Recitativus, Meningitis Cerebrospinalis, Peritonitis, Perityphlitis, Parametritis, Angina.

**PHENACETINE**

MAY BE HAD THROUGH ANY OF THE

**WHOLESALE HOUSES**

OR IN QUANTITY FROM

**MAY & BAKER**

(W. G. Baker. R. C. Heath. T. Tyrer. W. E. B. Blenkinsop),  
 MANUFACTURERS OF

**FINE, PHARMACEUTICAL, AND GENERAL CHEMICALS.**

(See former Advertisements in THE CHEMIST AND DRUGGIST.)

MEDALS—1851, 1855, 1862, 1867, 1885.

**GARDEN WHARF, CHURCH ROAD, BATTERSEA,  
 LONDON, S.W.**

# A WARNING.

1 London House Yard, London, E C., March 20, 1888.

I beg to call especial attention to the case referred to below. In that action the Plaintiff's Manager swore, and his affidavit was in no way disputed, that—

## KEATING'S INSECT DESTROYING POWDER

is quite harmless to animals and human beings, and that it does not contain any substance that is poisonous to either.

I take this opportunity of again stating that "Keating's Powder" is a special preparation, different from, and not to be compared with, any so-called Insect Powders which give so much dissatisfaction to customers.

My Trade Mark, registered October 11, 1876, is—

### KEATING'S

PERSIAN

### INSECT DESTROYING POWDER.

Any one infringing this I shall at once proceed against, as such a step is as much an injury to the whole trade as myself.

**THOMAS KEATING.**

In the High Court of Justice.

CHANCERY DIVISION.

MR. JUSTICE NORTH.

26th October, 1886.

## KEATING v. POLL.

### IT WAS ORDERED:

That the Defendant be perpetually restrained from stating or causing to be stated that Keating's Persian Insect Destroying Powder contains **any substance poisonous to animals or human beings**, or from making any statement to the effect that such Powder is dangerous to animals or human beings.

### IT WAS FURTHER ORDERED:

That the Defendant, William Sheppard Poll, do pay to the Plaintiffs their costs of this Action.

**NOTICE.**—*Chemists who make statements to customers defamatory of Keating's Insect Powder will be summarily proceeded against.*

# CAUTION.

## TO CHEMISTS AND DRUGGISTS, AND OTHERS.

Many of our customers, especially those abroad, having complained that when ARTICLES OF OUR MANUFACTURE have been ordered through Merchants and Wholesale Houses, other and inferior goods have been substituted, we beg to inform the Trade that to insure the supply of OUR MANUFACTURES in future our BEST QUALITY GOODS will bear Trade Mark as annexed.

S. MAW, SON & THOMPSON

ALDERSGATE STREET, LONDON.

# S. MAW, SON & THOMPSON

TRADE MARK.



TO IMITATE WHICH IS FELT

*The following SPECIALTIES are well worth the attention of the Trade:*

- |  |  |
|--|--|
| MAW'S ADHESIVE PLASTER                       | MAW'S CATHETERS, Silk Web Unbreakable Eyes, and Solid Ends, Patent |
| MAW'S AMBROSIAL SHAVING CREAM                | MAW'S CHERRY TOOTH PASTE   |
| MAW'S ANTISEPTIC INHALERS                    | MAW'S CHEST PROTECTORS   |
| MAW'S ARECA TOOTH PASTE                      | MAW'S CLINICAL THERMOMETERS  |
| MAW'S AROMATIC TOOTH PASTE                   | MAW'S COCAINE SPRAYS   |
| MAW'S ATMOSPHERIC ODORATORS for Perfumery    | MAW'S COMPRESSED CAMPHOR   |
| MAW'S AURILAVES                              | MAW'S CORK PRESSERS  |
| MAW'S BACK RESTS AND BED TABLES for Invalids | MAW'S CORN RUBBERS   |
| MAW'S BANDOLINE                              | MAW'S CONSTANT & INDUCED BATTERIES                                 |
| MAW'S BATH THERMOMETERS, Latest Improvements | MAW'S COSMETIQUE   |
| MAW'S BLEEDING BASINS                        | MAW'S COTTON WOOL  |
| MAW'S BOUGIES & CATHETERS, Elastic Gum       | MAW'S COURT PLASTER  |
| MAW'S BOUGIES & CATHETERS, Silk Web          | MAW'S COVERED POTS FOR DISPENSING,                                 |
| MAW'S BREAST RELIEVERS                       | MAW'S DISPENSING BOTTLES   |
| MAW'S BRILLIANTINE                           | MAW'S DOMESTIC MUCILAGE  |
| MAW'S BRONCHITIS KETTLES                     | MAW'S EARTHENWARE INHALERS   |
| MAW'S BROWN WINDSOR SOAP                     | MAW'S ELASTIC STOCKINGS, KNEE CAPS,                                |
| MAW'S BRUSH AND SPONGE POWDER                | MAW'S ELECTRO-MAGNETIC MACHINES                                    |
| MAW'S CACHOUS AROMATISES                     | MAW'S ENEMA APPARATUS  |
| MAW'S CAPILAVES                              | MAW'S ENEMA APPARATUS (H. GINSON'S)                                |
| MAW'S CAPSULES                               | MAW'S ENEMA APPARATUS (H. GINSON'S) with Disconnecting Tube        |
| MAW'S CATHETERS, Silk Web, Unbreakable Eyes  | MAW'S FEEDING BOTTLES  |
|  | MAW'S FLESH GLOVES, RUBBER &c.                                     |

## S. MAW, SON &amp; THOMPSON'S SPECIALTIES—continued.

MAW'S BOATS AND WICKS	MAW'S PERFUMERY
MAW'S MILLERS' EARTH	MAW'S PESSARY MOULDS
MAW'S EMIGATING PASTILLES	MAW'S PILL BOXES
MAW'S EMIGATING RIBBON	MAW'S PILL MACHINES
MAW'S GAS STOVES	MAW'S POMADE BOTTLES
MAW'S GERMAN FLOATS	MAW'S POMADES
MAW'S GLYCERINE JELLY	MAW'S POWDER FOLDERS
MAW'S GOLD BEATERS' SKIN	MAW'S RESPIRATORS
MAW'S GRADUATED MEASURES	MAW'S RETORT STANDS
MAW'S HAIR BRUSHES	MAW'S ROOT CUTTERS
MAW'S IMPROVED BINAURAL STETHO- SCOPES	MAW'S ROSE LEAF POWDER
MAW'S IMPROVED DOUCHES	MAW'S SAUCE PIQUANTE
MAW'S IMPROVED HEARING TRUMPETS, Nickel Plated	MAW'S SCALES AND WEIGHTS
MAW'S IMPROVED INDIARUBBER URINALS	MAW'S SEALING WAX
MAW'S IMPROVED SUBCUTANEOUS SYRINGES, with Huggett's Permanent Solutions	MAW'S SMELLING BOTTLES
MAW'S IMPROVED VAGINA SPECULUMS, Covered with Web and Elastic Gum	MAW'S SODA WATER TAPS
MAW'S INDIARUBBER TEATS	MAW'S SPIRIT LAMPS
MAW'S INHALERS	MAW'S SPONGE BAGS AND BATHING CAPS
MAW'S ISINGLASS PLASTER	MAW'S SPRAY PRODUCERS
MAW'S LABEL DAMPERS	MAW'S STEAM AND HAND BALL SPRAYS for Antiseptic Purposes
MAW'S LIME JUICE AND GLYCERINE	MAW'S SUPPOSITORY MOULDS
MAW'S LIT	MAW'S SURGICAL APPLIANCES
MAW'S LISTS	MAW'S SURGICAL INSTRUMENTS
MAW'S MARKING INK	MAW'S SYRINGES
MAW'S MEDICINE CHESTS	MAW'S TEETHING PADS
MAW'S MINTHOL CONES	MAW'S THERMOMETERS
MAW'S MORTARS AND PESTLES	MAW'S TOILET POWDER
MAW'S MOUTH AND THROAT SPRAYS	MAW'S TOOTH BRUSHES
MAW'S NIPPLE SHIELDS	MAW'S TOOTH PICKS
MAW'S OILED SILK	MAW'S TRUSSES
MAW'S PALETTE AND PILL KNIVES	MAW'S VIOLET POWDER
MAW'S PERFUMED TOILET SOAPS	MAW'S WAFER PAPER
	MAW'S WARBURG'S TINCTURE
	MAW'S WATCH SPRING PESSARIES
	MAW'S WAXED PAPER
	MAW'S WHITE DEMY PAPER

TAYLOR'S SUPER A1 LINT.

SPECIAL TERMS TO SHIPPERS. SAMPLES AND QUOTATIONS ON APPLICATION.  
For further particulars see Quarterly Price Current and Book of Illustrations, which will be forwarded on application, enclosing Business Card, post free to any part of the world.

**S. MAW, SON & THOMPSON,**  
MANUFACTURERS OF  
**SURGICAL INSTRUMENTS & DRUGGISTS' SUNDRIES,**  
to 12 Aldersgate Street, LONDON, E.C.

## The Chemist and Druggist of Australasia.

FEBRUARY 1, 1888.

CONTENTS OF NO. 2, VOL. 3.

Editorial articles on "The Pharmaceutical Society of New South Wales Incorporation Bill," "Dental Registration in Victoria" (Important); and "Tariff Revision and Customs Duties on Patent Medicines," &c.  
Correspondence on "Rough on Rats," "Peptonising Powders," and "Medical Practice."

### COLONIAL REPORTS.

*New South Wales.*—Pharmacy Board—Pharmaceutical Society (Official Report)—The Society's Examinations—Incorporation Bill (Result)—Additions to the Poison Schedule—Prosecution under the Sale and Use of Poisons Act—Customs Rules—Toilet Soap in Court.

*New Zealand.*—Pharmacy Board Official Report—The Result of the Examinations—The Midland Pharmaceutical Association—Prosecution under the Sale of Poisons Act.

*Queensland.*—Pharmaceutical Society (Report of Meeting)—Examinations—The Quicksilver Mines.

*South Australia.*—Pharmaceutical Society—Election of Council and Officers—The Society and the Past Year's Work—Society's Finances and General News.

*Tasmania.*—Correspondence *re* Hop Bitters—Poisoned by Nitrate of Mercury, &c.

*Victoria.*—Pharmaceutical Society Council Meeting—Pharmacy Board—The Veterinary Surgeons' Act—Prosecution of an Unregistered Assistant—School of Mines, Sandhurst—Kieselguhr in Victoria.

*Western Australia.*—Patent Medicines and Infant Mortality—Patent Medicines and the New Tariff.

Sponges in Victoria—Trade Notes—The Victorian Tariff, &c.  
(Copies may be obtained at the London Office, 42 Cannon Street, E.C., 6d. each, or the journal will be supplied to extra Australian subscribers at 5s. per annum.)

PUBLISHED BY J. & A. CHURCHILL.

The Pocket Formulary and Synopsis of the British and Foreign Pharmacopœias; containing all the Formulæ of the B. P. of 1885, and comprising standard, approved, and most reliable Formulæ for the Preparations and Compounds employed in Medical Practice. By HENRY BRASLBY. Eleventh Edition, 18mo., 6s. 6d.

By the same Author, &c.

The Druggists' General Receipt-Book: comprising a copious Veterinary Formulary, numerous Recipes in Patent and Proprietary Medicines, Druggists' Nostrums, &c.; Perfumery and Cosmetics; Beverages, Dietetic Articles and Condiments; Photographic Chemicals and Formulæ; Trade Chemicals; Scientific Processes; and an Appendix of Useful Tables. Ninth Edition. 18mo., 6s. 6d.

Also,

The Book of Prescriptions; containing upwards of 3,000 Prescriptions, collected from the practice of the most eminent Physicians and Surgeons, English and foreign; comprising also a compendious History of the Materia Medica, Lists of the Doses of Official or Established Preparations, and an Index of Diseases and Remedies. Sixth Edition, much enlarged. 18mo., 6s. 6d.

LONDON: 11 NEW BURLINGTON STREET.

## THE LONDON HOMŒOPATHIC HOSPITAL AND MEDICAL SCHOOL, GREAT ORMOND STREET.

A NEW WARD, unoccupied for want of funds, is much needed for the Patients, and will be opened so soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accommodation cases, the latter specially Certified. G. A. CROSS, Secretary.

Just Published, Crown Octavo, Price 5s.

## A PRACTICAL MANUAL OF VENEREAL AND GENERATIVE DISEASES:

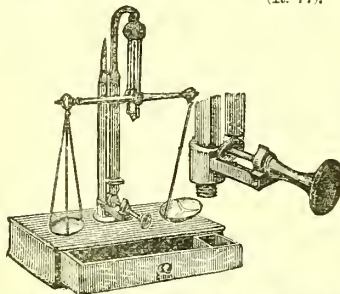
Including SPERMATORRHOEA, PROSTATORRHOEA, IMPOTENCE, and STERILITY in Both Sexes.

By M. K. HARGREAVES, M.D.

LONDON: R. KIMPTON, 126 WARDOUR STREET, LONDON, W.

## IMPROVED DISPENSING SCALE

(R. 77).



Patent Screw Lift, Brass Beam, Pillar, &c., on Mahogany Box, with Drawer. This Scale has the advantage over the old pattern slide, as by the patent action of the new Thumb-screw Lift greater accuracy is insured in weighing. It avoids the unsteady action of the lever, and by raising the beam gradually it remains suspended, thus freeing both hands for dispensing. 6-in. beam & 8-in. box, price 22/6, 8-in. beam & 10-in. box, price 26/6. Discount 10 per cent., cash with order.

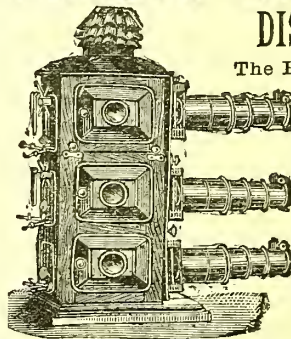
A List of Drug Scales, just published, sent on application. Several new and improved patterns. Special terms to Wholesale Buyers.

PETER ROGERS & CO.

SCALE MAKERS, 48 GREEN STREET, DERITEND, BIRMINGHAM.

## MAGIC LANTERNS.

### DISSOLVING VIEWS.



The Pamphingos, finest Oil Light, gives 12-foot Pictures. B. J. MALDEN, Esq., compares it to Limelight.

Price, 4-in., £6 0 and £4 4

TRIPLEXICONS, 3½-in., £2 2

Experimental Lanterns, as supplied

W. Lant Carpenter, Esq.; Grand Trunk

Lanterns, Limelight effects; Novelty;

60,000 Slides; Cheapest and Best. Illustrated Catalogues, 250 pages, 9d.

Pamphlets free.

HUGHES, Patentee & Inventor

Brewster House, Mortimer Road, KINGSLAND, LONDON.

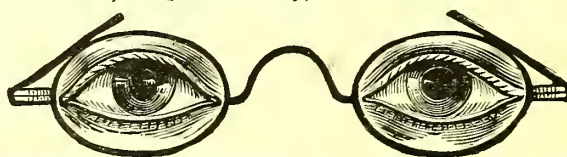
## BOTWRIGHT & GREY

(Late A. H. BOTWRIGHT.)

Established 1865.

MANUFACTURING OPTICIANS, Wholesale and for Exportation only, 13 SPENCER ST., CLERKENWELL, E.

Makers of every description of Spectacles and Folders in Steel, Shell, Gold Silver, Horn, Solid Nickel, German Silver, &c. Specialities in Perfect Pebble Spectacles and Folders.



Field, Opera, and Marine Glasses. Barometers, Thermometers, &c. Clinical Thermometers and Lens-front Clinics. Thermometers with Kew Certificates.

OCULISTS' TRIAL CASES, M.D. STANDARD.

SAMPLES SENT ON APPLICATION.

Special Easy and Accurate Fitting Spectacles for Astigmatic and Prismatic Lenses, same supplied to the Ophthalmic Hospitals.

Repairs, of every description, in every case we execute and send back by return post.

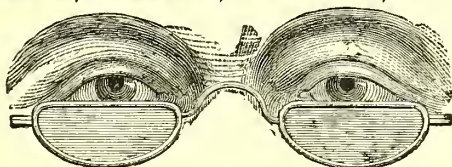
Oculists' & Hospital Prescriptions prepared. Sphero Cylinders & Prisms worked to order and in every case by return of post. SHOW CARDS AND PRESCRIPTION FORMS WITH CUSTOMERS' NAMES SUPPLIED GRATIS.

# J. RAPHAEL & CO.

CHEAPEST HOUSE IN THE TRADE FOR

## SPECTACLES, FOLDERS, FIELD, OPERA, & MARINE GLASSES.

Wholesale only.



TRADE  MARK.

Repairs Returned Same Day.

13 OXFORD STREET, LONDON, W.

*The Cyclostyle.*



IS THE BEST SYSTEM known for Printing Circulars, Notices, Price Lists, &c.

Simple, Rapid, Cleanly, Durable, and extremely Cheap in Working.

### THE "WORLD" TYPE WRITER

Is the latest and by far the simplest Type Writer yet introduced. It is absolutely simple and requires no learning. After a little practice a speed of 40 words per minute can be obtained. It prints very clearly, and different styles of Type can be supplied. Prints on Post-cards, Envelopes, or Tags. Weighs 4 lbs., and is only 12 in. long by 6 in. wide, therefore is very portable. Re-inking of Type is extremely simple. Chemists will find the Type Writer very useful for Labels, &c. It is, in fact, a strong, perfect Type Writer, and only One-third the price of any other similar Machines.

Price £2 2s. Od. complete.

**COPY OF OPINION OF A USER.**  
 Henley-on-Thames, May 31st, 1887.  
 Gentlemen.—I have had a fair amount of experience in the use of various printing machines, and prefer the Cyclostyle to any other that I have used. *The Stencil is easily written, and the printing is especially cleanly and easy to work.*  
 I am, yours faithfully,  
 ALEXANDER GROVES, Grocer, &c.  
 Prices of Apparatus complete. Note size, 21/; Letter size, 27/6; Foolscap, 31/6

SPECIMENS OF WORK AND TESTIMONIALS ON APPLICATION TO THE  
**FACSIMILE APPARATUS CO.,**  
 79a GRACECHURCH STREET, LONDON. E.C.

THE WHOLESALE AND RETAIL  
**Druggists' Price Book.**

By D. ELLIOTT.

NEW EDITION, revised according to the British Pharmacopœia, 1886.

Pocket Size. Bound in Leather. Price 3s., Post Free 3s. 2d.

SAMPLES  
 FREE BY POST.

GLAISYER & KEMP'S  
**PRICE BOOK**  
 OF DRUGS, CHEMICALS, & PHARMACEUTICAL PREPARATIONS, & SUNDRIES.

Revised according to the British Pharmacopœia, 1886. Contents—183 printed and 9 blank pages, ruled throughout for lb., oz., dr., &c. Sundries ruled per doz., gross, &c. Post 4to, Strongly Bound, Half-calf, 10/6.

## SILVERLOCK'S

### CHEMISTS' COUNTER BILLS

GOOD QUALITY, 7½ x 5 — — — 10,000, 15/ | SECOND QUALITY, 7½ x 5 — ... — 10,000, 12/6  
 " 9 x 5½ — — — ... 10,000, 22/6 | " 9 x 5½ ... .. 10,000, 18/

### CHEMISTS' SLIP LABELS

FROM 1/ PER 1000; A REDUCTION ON LARGE QUANTITIES.

### CHEMISTS' PILL LABELS

FROM 1/3 PER 1000; A REDUCTION ON LARGE QUANTITIES.

COPPER-PLATES FOR SLIP AND DISPENSING LABELS ENGRAVED FREE OF CHARGE.

Labels of every description, Price Lists, Illustrated Trade Catalogues, Prospectuses, Pamphlets, Show Cards, &c.

JOHN BELL & CO.'S  
**PRICE BOOK**

OF  
 DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

Contents—183 printed and 16 blank pages, ruled throughout for cwt., lb., oz., dr., or lb., oz., dr., gr.  
 Post 4to, Strongly Bound, Half-calf, 10/6.

H. SILVERLOCK,

Medical Label & General Printer,

92, BLACKFRIARS ROAD,  
 LONDON. S.E.

Liverpool Chemists' Price List,

Post Free 1s. 1d.

Manchester Retail Price List,

Post Free 1s. 1d.

# THE EASTER HOLIDAYS—IMPORTANT NOTICE.

Correspondents will please note that for next week's issue of "The Chemist and Druggist" Advertisements for insertion in the Exchange Column must reach our Office not later than noon on Wednesday, March 28, 1888.

## EXCHANGE COLUMN.

### FOR DISPOSAL.

#### Drugs and Chemicals.

Six doz. Jensen's cod-liver oil, 6s. and 12s. doz. Jackson, Chemist, Preston.

Surplus stock.—Crichtley's starch gloss, 5s. gross; 1d. inks, 5s. gross; Wiuchester each ess. garlic, ess. shallots (Bush's); sale or exchange. Slater, Chemist, Loftus, Yorks.

Hop resin, a very powerfully appetising and soothing tonic; would be an invaluable appetising adjunct in horse balls, pills, and medicated lozenges; being a by-product 6d. per lb. only, 7 lbs. 1s. 6d. Hay, Manufacturing Chemist, Hull.

Surplus stock.—Acid. gallic., 1 lb. 3s. 4d.; tinct. catechu, 8 lbs., 1s. 6d.; senne Alex., 15 lbs., 2s.; pulv. cubebe, 15 lbs., 4s. 6d.; jalapa co., 6 lbs., 1s. 9d.; rhei co., 3 lbs., 2s. 6d.; cretae arom., 4 lbs., 3s. 9d. per lb. 187/34.

One Browne's blood purifier, 11s.; 1 Browne's liver invigorator, 11s.; 1 Bowen's tonic saline, 2s. 9d.; 1 Mincasea food, 2s. 6d.; 6 nurse Sandall's soothing syrup, 1s. 1½d.; 5 nurse Sandall's cooling powders, 1s. 1½d.; 5 thoraxine, 2s.; 11 Father Clement's restorative syrup, 2s. 9d.; 1 Warriss's linctus, 1s. 1½d.; 4 Dr. West's Indian worm powders, 1s. 1½d.; 1 Hall's lung restorer, 4s. 6d.; 3 Hall's health renewers, 1s. 1½d.; all saleable; what offers for the lot? carriage paid. Highway, Walsall.

#### Proprietary Articles.

Three gross 4-oz. limes and glycerine, plain labels, 2s. 6d. dozen; 2 gross 8-oz. ditto, 4s. 9d. dozen; 3 gross 5-oz. jars super furniture cream, 2s. 9d. doz.; 4 gross 10-oz. ditto, 5s. 3d., plain labels. Morgan, Chemist, Hereford.

One 7½d. Day's bronchial elixir; 1 each 1s. 1½d. Roper's bath pills, Fairburn's pill of health, Lund's rosebud soothing syrup, Kay's infants' restorative; 2 Hammond's pain paint; 6 Holroyd's infants' friend; 1 2s. 9d. Henry's magnesia; 2 2s. 9d. Woodhouse's rheumatic mixture; 3 2s. 9d. and 1 4s. 6d. Vicar's antialectic; 5 2s. 9d. and 1 4s. 6d. Woodcock's rheumatic mixture; 1 4s. 6d. golden medical discoverie; 2 4s. 6d. Thompsou's life drops; 4 1s. 6d. and 3 2s. 9d. Brooks's Arabian food biscuits; the highest bid for the lot before Thursday next takes them. S. Parker, 360 Leeds Road, Bradford.

#### Literature.

Chemist and Druggists' Diary, 1888; what offers? Davies, Chemist, Rye Lane, Peckham.

Will exchange *Pharmaceutical Journal* for *Chemist and Druggist*, 11 William Street, Norwich

*British Medical Journal*, 398 copies, from 1879 to 1887; cash offers, or exchange archaeological works. Powell, 116 Denmark Hill, S.E.

Offers wanted for *Chemist and Druggist*, 1882, 1883, 1884; *Pharmaceutical Journal*, 1881, 1882, 1883, 1884, 1885. Worth, Chemist, Bournemouth.

Churchill's "Midwifery," sixth edition, illustrated, new (cost 12s. 6d.), 6s. 6d.; Clater's "Cattle Doctor," new edition (6s.), 3s. 6d. Lakeman, Melksham.

Gray's "Supplement to Pharmacopœia," by Redwood; very scarce; published at 22s.; what offers? complete, wants re-binding. Wilkinson, Chemist, Colne.

Wills's "Pharmacy," 2s. 6d.; Barff's "Chemistry," 2s. 6d.; Bentley's "Botany," 8s. 6d.; Cook's "Reproduction," 2s.; Lytton's "Caxtons," 2s. 3d.; 24 parts Cassell's "Popular Educator," 8s. 18s. 21.

*Pharmaceutical Journal*, weekly, complete from commencement, with advertisements, 21s., cost 10l. 10s.; *London Medical Journal*, weekly, 7 thick vols., bound, 5s.; botanical, chemical, medical, surgical, homœopathic books, free; returnable lists for stamp. Davis, 34 Mayton Street, London, N.

#### Formula.

Reliable recipes, 6d. each; full set of 130, neatly copied in book, 7s. 6d.; send for list, "Cbemist," Edwards, Wye, Kent.

Think over this! To increase business and double profits, buy Brooks's recipes, warranted practical.—For half-crown order or stamps, recipes of following specialities (as sample) post free.—"Glycerine Cream," most elegant, economical, and efficacious remedy for chaps, frost bites, roughness of skin, &c. (superior to Beetbam's), pays splendidly; "Tic Specific," wonderful remedy, cures like magic, conquers after all others fail; "Embrocatio Alb.," inseparable white oils, equalling Elliman's in utility and appearance; "Jubilee Sance," cheapest, best, and most appetising sauce in creation, once tasted always bought. T. Brooks, Chemist, Louth, Lines. Detailed printed list post free.

#### Shop Fittings.

For sale, quantity of shop rounds cheap. 184.31. Handsome medicine case, complete (style Maw's illustration, No. 4); exchange patents to 60s. or cash 50s. Patman, Wivelscombe.

For sale.—15 doz. new stoppered shop rounds and jars, gold labelled, 8l. 10s.; 12 ft. range pine drawers, french polished, with gold labels and glass knobs, 6l. 12s.; 12 ft. range mahogany ditto, with bevelled plate-glass labels, 9l. 10s.; dispensing case, 5 ft. long, 4l. 10s.; desk and glass case, 55s.; 6 4-gall. carboys, 10s. each; 6 3-gall. carboys, 7s. each; 4 8-gall ditto, 17s. 6d. each; 1 10-gall. ditto, 20s.; 24 2 lb. blue jars, labelled, 1s. 6d. each; handsome dispensing screen, 6 ft. long, with mirror centre and marble slab, 6l.; sloping plate-glass case, 36 by 18, 35s.; bent front ditto, 36 by 15, 50s.; ebonyed wall case, 8 ft. long, 8l.; 24 4-lb. best pink jars, gold labelled, 4s. 6d. each; bent front toothbrush case, 30s.; 12 4-lb. blue jars, gold labelled, 30s. R. Tomlinson & Sons, Bond Street, Constitution Hill, Birmingham.

#### Miscellaneous.

Thirteen choice varieties flower seeds; at paid, 1s. Slater, Seedsman, Loftus, Yorks.

Dental-engine. Full particulars to Blew, Albion Terrace, South Lambeth, S.W.

Six doz. Hop Bitters Co's. hop bitters, 4d. size, fresh, not unpacked. Bond, Somerset, Somerset.

Surplus.—200 good honeycomb sponges, 2s. 2d. sample for 2 stamps; King's cooked oatmeal, 3s. doz. Crofts, Argyle Street, Birkenhead.

Microscopic objects, large variety, well mounted; list; approval. Henry Ebbage, Framingham, Suffolk.

Five-grain pill machine, in excellent condition; cost 27s.; price 8s. 6d. Halford, chemist, New John St. West, Birmingham.

Summer made stilton cheese, 10 lbs. each; and postal 7s. 6d.; only few left. Knas, Bainbridge, Bedale.

Maignen's 2 gallon filter (copper), complete, nearly new, 2l. 10s. "Ozone," Cale Street Distillery, Chelsea, S.W.

Three 85-gallon oil cisterns, with taps and covers; price 20s. each. Speechly, Bishopstortford.

100 6 gall. sheet-iron bottles, in good condition; also *The Chemist and Druggist Journal* for last five years, sent for any offer. Wint, 8 Boulevard, Halifax.

£10 (wholesale), drinks, drenches, powder, Yorkshire Veterinary Medicines Manufacturing Company, Sheffield; also 20 3d. bridal bouquet bloom; exchange or offer. Herbert Ray, Margate.

Sponges.—Cresswell's carded sponges, perfectly clean and in good order; 6 doz. cards, 1 doz. on card, 6s. doz. cards, 6 ditto 2l., 1 ditto, 6 ditto 3d., ditto, 18s. ditto 3 ditto, 4d., ditto, 24s. ditto, 8 ditto, 6d., 1 on card, 18s. ditto; special discount take lot. Connor, Apothecary, Newry.

#### WANTED.

Attfield's "Chemistry," last edition, and cl. Roberts, Southdown House, Eastbourne.

Glass-labelled mahogany-fronted drawers; send particulars. 184/31.

Ince's "Pharmaceutical Grammar"; "Key to Cassell's Lessons," Latin; lowest price. Halstead, Rawtenstall.

Cbemists.—Wanted, 100 second-hand stoppered bottles, medium-sized. X. S. Daily Office, Cardiff.

*British Journal Dental Science*, 1884, 1885, 1887; also *Dental Record*, back numbers. Watt, Chemist, West Hartlepool.

British Pharmacopœia, 1885; Muter's "Analytical and Pharmaceutical Chemistry." Lowest price to F. Stent, George Street House, B.

Plate-glass shelves, clean cut, or bevelled edge; send sizes, &c.; Pharmacopœia, 1885; Symes's "Companion," latest edition. Jones, McKintosh Place, Cardiff.

British Pharmacopœia, 1885; Bentley's "Structural Botany"; Muter's "Analytical Chemistry," last edition, good condition. Iker, Taere Hill, Rock Ferry.



# FOSSILINE

(REGISTERED TRADE MARK.)

We beg to call the attention of the trade to our HYDROCARBON JELLY, manufactured only by us, and the demand for which being so largely on the increase is in itself an evidence of its superior quality. It is as cheap as any other basis for Ointments, Pomades, &c., to which it is much superior, as it CANNOT BECOME RANCID. It is also in itself a simple dressing for wounds, bruises, &c., &c.

## WHITE FOSSILINE

In 1, 7, 14, and 28 lb. Tins, 1s. 4d.; 56 and 112 lb. Drums, 1s. 3d.

## YELLOW FOSSILINE

In 1, 7, 14, and 28 lb. Tins, 8d.; 56 and 112 lb. Drums, 7d.

N.B.—Both answer tests of Paraffinum Molle B. Ph. 1885.

### SPECIAL DISCOUNT TO LARGE BUYERS.

ALSO

FOSSILINE, SIMPLE, 6d. Bottles, 3s. 9d. per doz.;  
 1s. Bottles, 7s. 6d. doz.  
 " " 1d. Tins, 8s. per gross; 2d., 14s.  
 gross; 3d., 20s. gross.  
 " POMADE, 6d. retail, 3s. 9d. per doz.; 1s. re-  
 tail, 7s. 6d. doz.  
 " " white, 1s. Bottles, 8s. doz.  
 " PLASTERS, 

Soft unglazed Calico	Holland	Pure Calico	Flesh-coloured Cambric
8s.	10s.	7s. 6d.	10s.

  
 per doz. yards.

SOLE MANUFACTURERS:

LIVERPOOL:

LONDON:

**EVANS, SONS & CO.**

**EVANS, LESCHER & WEBB.**

CANADA: EVANS, SONS & MASON (Lim.), Montreal and Toronto.

TO THE  
**CHEMISTS & DRUGGISTS**  
 OF  
**GREAT BRITAIN.**

TELEGRAPHIC ADDRESS: *St. George's, Middle St.,*  
**COLEMAN,** *NORWICH,*  
**GEORGE'S, NORWICH.** *December, 1887.*

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,  
**COLEMAN & CO., LIMITED.**

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each.  
 Trade prices on application.*

P.S.—Where the Licence is not held we are willing to pay the entire cost of a Retail Licence (the holder of which can sell any kind of Wines) if an assorted order of 12 dozen is sent us of any of our preparations. List on application. Our Liebig's Extract of Meat and Malt Wine **WITHOUT QUININE** commands a very large sale, and is recommended by over one thousand medical men who have sent us testimonials in its favour.

SOLE MANUFACTURERS—

**COLEMAN & CO., LIMITED,**  
 ST. GEORGE'S, NORWICH,  
 AND 3 NEW LONDON STREET, LONDON, E.C.

EIGHT PRIZE MEDALS AWARDED.

**GOODALL'S**  
**HOUSEHOLD SPECIALITIES.**

**Yorkshire Relish**

THE MOST DELICIOUS SAUCE IN THE WORLD.  
 To Chops and Steaks, Fish, &c., it is incomparable. In Bottles, 1s. and 2s. each.  
 CAUTION.—On each Yorkshire Relish Label is a Willow Pattern Plate and name, GOODALL, BACKHOUSE & Co. No other is genuine.

**Goodall's**  
**Baking Powder**

THE BEST IN THE WORLD.  
 Makes delicious Puddings without Eggs, Pastry without Butter and beautiful light Bread without Yeast. In 1d. Packets; 6d., 1s., 2 and 5s. Tins.

**Goodall's**  
**Quinine Wine**

The best, cheapest, and most agreeable tonic yet introduced. In Bottles, 6d., 1s., and 2s. each.

**Goodall's**  
**Custard Powder**

For making delicious Custards without Eggs, in less time and at half the price. Sold in Boxes, 2d., 6d., and 1s. each.

**Goodall's**  
**Blanc Mange Powder**

Is acknowledged by all to be the most convenient and economic preparation ever introduced, as, by its use, a most Rich and Delicious Blanc Mange may be produced in a few minutes at a trifling cost, and may be had of various flavours, i.e., Raspberry, Strawberry, Lemon, Almond and Vanilla. Sold in Packets, 6d. and 1s. each.

**Goodall's**  
**Egg Powder**

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them both wholesome and nutritious. One sixpenny tin will go as far as twenty fresh eggs. In 1d. Packets; 6d., 1s., 2s. Tins.

SOLE MANUFACTURERS—

**GOODALL, BACKHOUSE & CO.,**  
 WHITE HORSE STREET, LEEDS.

A Monthly Price List of Druggists' Sundries, Patent Medicines, &c., can be had Free on application.

# JEWSBURY & BROWN'S

(MANCHESTER)

# SPARKLING TABLE WATERS,

UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.

PELTZER WATER.

POTASH WATER.

LITHIA WATER.

SIMPLE  
AERATED WATER.



LEMONADE.

GINGER ALE.

QUININE TONIC.

GINGER BEER.

MOREHOUND BEER.

### EXTRACTS FROM ANALYTICAL REPORTS.

"An examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."

FRANCIS JONES, F.R.S.E., F.C.S.

"The whole, I have no hesitation in stating that your Aerated Waters are of the highest standard of purity which is practically attainable."

LOUIS SEIBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but Citric Acid."

"I took a sample of the water used in your manufactory, in the preparation of the Aerated Waters, and found it, as was the case with the completed compounds, entirely free from lead, copper, or any injurious matter whatever."

C. ESTCOURT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination.

13 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

### THE SIMPLISSIMUS PRINTING PRESS,

FOUR PRIZE MEDALS.

MADE IN FIVE SIZES,

As supplied to H.M. Government.

SIMPLEST, BEST, CHEAPEST.

To print from 9 inches by 6 inches to 16 inches by 10 inches.

AMATEUR SELF-INKER.

Prints 6 inches by 4½ inches.

Price £3 10s.

Simplex Press, 5 inches by 8 inches, £2.

Treadle Printing Machines from £7 10s.

CHEMISTS' OUTFITS FROM £5.

Send for New Illustrated Descriptive Catalogue, 40 pages, 2d. free.

List of 700 styles of Type, &c., 8d. free.

"SIMPLISSIMUS."

The Best Press for a Chemist.

BIRMINGHAM MACHINISTS' CO.  
PARADE IRON WORKS, BIRMINGHAM.

### THE STAR INCANDESCENT LAMP

From the smallest Fairy Lamp up to 25 C.P.

ELECTRIC LIGHT CARBONS.

Guaranteed Steady Light. [2]

Albert Friedlaender, Berlin, W.8.

### GIVEN AWAY!

YOUR MONOGRAM or NAME.

Anyone sending 3d. for postage, &c., and mentioning this advertisement, will receive gratis his Two-Letter Monogram in above style, or his name in full, for Marking Linen or Paper. Great variety of Stamps. S, ecimens free.

W. HOUTEN & CO., Stereotypers in Indiarubber,  
21 COLEMAN STREET, LONDON, E.C.

J. Houten.

### TEMPERANCE BEVERAGES.

A Sixpenny Bottle of

### ADAMS'S EXTRACT OF HERBS

Will make 8 gallons of sparkling, wholesome, and refreshing

PRIME HERB OR BOTANIC BEER,

Unequaled in strength and richness of flavour by any preparation made from fresh herbs.

The Extract is very carefully manufactured, on the most improved scientific principles, from the herbs and plants gathered and dried at the proper season, when their virtues are in full vigour, thus retaining their invigorating and health-giving properties.

It makes an excellent beverage, giving natural flavour and colour, and a sparkling foam like bottled ale.

In Bottles, 6d. to make 8 gals.; 1s. to make 18 gals.; and 2s. 6d. to make 50 gals.

### ADAMS'S GINGER ALE ESSENCE

makes a sparkling, refreshing, and invigorating beverage for summer and winter.

### ADAMS'S SPARKLING FOAM PRODUCER.

One tablespoonful added to 2 gallons of the Herb Beer or Ginger Ale, just before bottling, gives a creamy foam like bottled ale.

Wholesale Agents,

W. ELWARDS & SONS, Queen Victoria St., London.

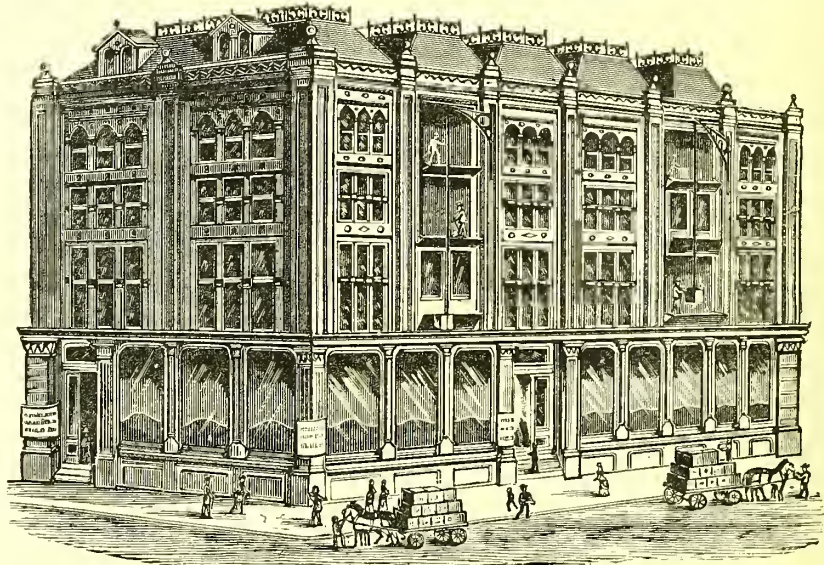
Specially favourable terms to large Buyers from the  
PROPRIETOR,

B. ADAMS, Mansfield, Notts.

# HESELTINE'S

THE PREMIER TEA OF INDIA AND  
CEYLON, IS THEIR SPECIAL IMPORTATION  
AND THE PERFECTION OF TEA.

REGISTERED "TAPRABUNDA" TRADE MARK.



OFFICES AND DUTY PAID WAREHOUSES.

For Retail at 1s. 8d., 2s., and 2s. 6d.

In Lead Packets,  $\frac{1}{4}$  lb.,  $\frac{1}{2}$  lb., and 1 lb.

*Terms of Agency, and Samples of the Tea, on application.*

## WM. HESELTINE & SON,

56 Wilson Street, and 1 & 3 Earl Street, Finsbury,

**LONDON, E.C.**

AGENTS WANTED WHERE NOT ALREADY REPRESENTED.

**WHAT YOU CAN  
WHAT YOU SHOULD  
SELL  
CASSELL'S CEYLON TEAS**

**THE LANCET,** September 25, 1886, says of Cassell's Ceylon Teas:—

"The Tea Plantations of Ceylon have been a great success, and have led in an important degree to the material resources of the Island. The sample now before us is very satisfactory. There is no facing or other mineral matter. The leaves are small and clean, and give a strong decoction of delicate flavour. Such Tea may well replace the product of China."

**THE GROCER,** January 2, 1886, says:—

"The Ceylon Teas Messrs. Cassell have named and registered as 'The Tea of the Future,' a title which will most probably prove true, if the consumption of this really fine article increases in the same ratio that it has done during the past two or three years."

**"FRAGRANT TEA,"  
PURE AS IMPORTED,"**

In Air-tight Lead Package, ¼, ½, and 1 pound.

Charged 1/8 sells 2/, 2/ sells 2/6, 2/6 sells 3/.

Agents appointed in City, Town, and Village.

Write for Sample Packages, sent post-free.

Handbills, Showcards, &c., sent with each order.

**THIS TEA COMMANDS A SALE.**

ADDRESS:—

**CASSELL & CO.,** 80 Fenchurch St. LONDON.

**TYRER'S SAUCES**



**"BOROUGH" KETCHUP**

**THE GIANT 1d. BOTTLE OF SAUCE.  
LARGEST IN THE TRADE.**

In Half-Gross Boxes, at 6/6 per Gross.\*

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE,  
OR READING SAUCE.

d. Sample Bottles, dozen parcels .. ..	per gross	5/	extra quality	6/
" " " " " " " " " " " " " " " "	"	5/3	"	6/6
1d. Giant Bottles, dozen parcels .. ..	"	6/	"	8/
" " " " " " " " " " " " " " " "	"	6/6*	"	8/6
¼-Bottles (flat or round), reputed ¼-pint .. ..	"	16/	"	24/
½-Bottles (flat or round), reputed ½-pint .. ..	"	25/	"	32/
¾-pint Imperial Round Stoppered Bottles .. ..	"	30/	"	36/
1-pint Imperial " " " " " " " " " " " " " " " "	"	50/	"	60/
12½-gallon Casks (casks free) .. ..	each	20/	"	32/

**ROYAL CAFÉ SAUCE.**

In 8 oz. square-stoppered bottles, 48/ per gross.  
A rich, fruity Sauce of fine flavour, and worth especial attention, as being the most saleable in the market.

Samples of any kind sent Free of all Cost by

**PETER TYRER,**  
The "Borough" Ketchup and Sauce Maker,  
70 LONG LANE, BOROUGH, LONDON, S.E.

SCOTCH AGENCY: 113 WEST NILE STREET, GLASGOW.  
Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.  
BURGOYNE & CO., 16 Coleman Street, London, E.C.  
JOS. TRAVERS & SONS, 119 Cannon Street, London, E.C.

**EVERY CHEMIST & DRUGGIST**

Should write for samples and terms (post free) of the Delicious Spring Blossom Ceylon Tea. This valuable and profitable agency is worth securing. Handsomely and specially packed for Chemists' sale in air-tight canisters by

**JOHNSON & CO.,** WHOLESALE TEA AND COFFEE DEALERS. **8 LIME ST., LONDON, E.C.**

**ROBERT GIBSON & SONS,**

MANUFACTURERS OF HIGH-CLASS LOZENGES OF EVERY DESCRIPTION,  
JUJUBES, BOILED SUGARS, COMPRESSED PELLETS, &c., &c.  
Shipped through London Houses to all parts of the World. Price Lists sent on application to the Works,  
**BRISKINE STREET, HULME, MANCHESTER ENGLAND.**  
LONDON DEPOT—1 AUSTRALIAN AVENUE.

Introduced 1855.]

**ROBINSON'S CONCENTRATED WATERS.** [Introduced 1855.]  
Four Ounces of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They will keep good any length of time in any climate.

Aqua Anethi, Concent., 4/ lb.	Aqua Cassia Ver. Concent., 6/ lb.	Aqua Foeniculi, Concent., 4/ lb.	Aqua Pimentæ, Concent., 4/ lb
" Anisi " " " "	" Cassia " " "	" Menth. Pip. " " "	" Rosæ " " 8/6 "
" Camphoræ " " "	" Flor. Aurant. " " 8/6 "	" Ang. " " 6/ "	" Rosæ Virgin " " 10/6 "
" Carui " " "	" Flor. Sambuci " " 8/6 "	" Virid. " " 4/ "	

The above are put up in Bottles of ¼ lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.  
From the LANCET, July 15, 1882.—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find An. Anethi, Anisi, Cinnam. Ver., Rosæ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practice."

Wholesale Agents: HARRON & Co., London, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.  
**B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.**

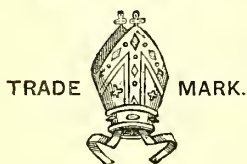


# MITRE TEA

COMFORT & PROLONG YOUR EXISTENCE  
BY DRINKING

**MITRE  
TEA.**

**MITRE  
TEA.**



	<i>s. d.</i>
Mitre "Broken Leaf" 1 4	1 4
Mitre "Broken Am. Pekoe" ... .. 1 8	1 8
Mitre "Thrift" (whole leaf) 1 8	1 8
Mitre "Kee-Mun" ... 2 0	2 0
Mitre "Amgoorie" ... 2 6	2 6

	<i>s. d.</i>
Mitre "Broken Leaf" 1 4	1 4
Mitre "Broken Am. Pekoe" ... .. 1 8	1 8
Mitre "Thrift" (whole leaf) 1 8	1 8
Mitre "Kee-Mun" ... 2 0	2 0
Mitre "Amgoorie" ... 2 6	2 6

Fac-Simile of Show Card distributed Gratis to all Agents.

Sold by Specially Selected Agents. Wrapped in  $\frac{1}{4}$ -lb.,  $\frac{1}{2}$ -lb., & 1-lb. Parcel

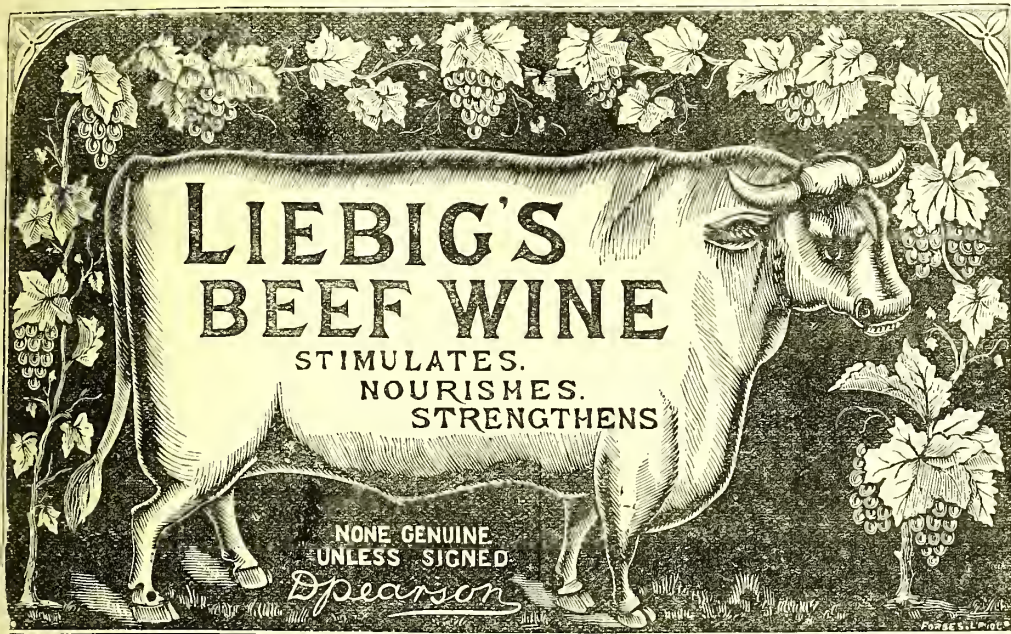
## VALUABLE AGENCY.

Framed Show Cards, Enamelled Iron Tablets, Posters, Window Transfer, and Handbills with Agent's Name on supplied free. Newspaper and Railway Station Advertisements to suit the requirements of Agents. Applications for Agencies where unrepresented will receive prompt attention. Price Current and Pamphlet, with Terms, post free.

**KEARLEY & TONGE,** MITRE SQUARE, **LONDON, E.C.**  
ALDGATE,

It is guaranteed that one glass of Liebig's Beef Wine contains more Nourishment and Strength than ten glasses of any other Wine.

GIVING QUALITIES. Prize Medals Awarded—Liverpool and Glasgow, 1856 & 1887.



**LIEBIG'S BEEF WINE (A).**  
CHIEF INGREDIENTS—  
 Essence of Beef, Choice Port Wine, Extract of Malt, and Quinine.

**NO WINE LICENCE NECESSARY FOR ITS SALE.—See Letter from Excise.**

Prices: 2s. 9d., 21s. per dozen; quarts 4s. 6d., 39s. per dozen. Write for samples.

SOLE MANUFACTURERS—

**LIEBIG'S WINE CO.** 66 and 68 Highfield Street, Liverpool, and 12 St. Helen's Place, London, E.C.

**DE MIEL'S PERFECT HEALTH BISCUITS.**

CHEMICAL LABORATORY,  
 54 Holborn Viaduct, E.C., London, Jan. 7, 1887.

ANALYSES BY THE INTERNATIONAL PATENTS ASSOCIATION.  
 Dear Sirs,—Having submitted the sample of DE MIEL'S BISCUITS lately received from you to a careful chemical analysis, we are enabled to report upon them as follows:—

These Biscuits have been found to contain considerable proportions of nitrogenous matter and of carbo-hydrates; they are also especially rich in salts, which include a large amount of combined phosphoric acid. The flesh-producing, heat-giving and bone-forming constituents of food are thus all represented in these Biscuits. A satisfactory feature is absence of excess of moisture, the baking having evidently been conducted with care.

The Biscuits possessed an agreeable flavour; and they can be pronounced to be well made and of good quality.—We remain, faithfully yours,

ARTHUR HILL HASSALL, M.D., Lond.,  
 Author of "Food: Its Adulterations and the Methods for their Detection."  
 EDWY GODWIN CLAYTON, F.I.C., F.C.S.

A Liberal Discount to the Trade. Circulars and Particulars on application.  
 The INTERNATIONAL PATENTS ASSOCIATION,  
 15 NICHOLAS LANE, LONDON, E.C.,  
 MANUFACTURING CHEMISTS AND SUNDRIESMEN.

**Edwards' Desiccated Soup.**  
 BY ROYAL LETTERS PATENT.  
 HIGHEST AWARDS:

International Health Exhibition, LONDON, 1884.  
 International Exhibition, LIVERPOOL, 1886.

Consists of the finest Vegetables and Extract of Beef in a dry state.  
 The Manufacturers beg to direct the attention of the Trade to the above article, now commanding a ready and remunerative sale. It is put up in a neat and attractive form, in 1-lb., ½-lb., and ¼-lb. tins, to sell at 1s. 3d., 8d., and 4½d.; also in packets containing 1 oz. at 1d. These are packed in cases of 30 1-lb., 48 ½-lb., or 72 ¼-lb. tins; the 1d. packets in gross and half-gross boxes in cases of 12 gross; carriage, tins, and cases free. A liberal supply of Show Cards, Glaciers, and printed matter, consisting of Circulars, Medical Testimonials, Press Opinions, and Counter Bills bearing name and address.

Sample, with Terms, free on receipt of Business Card.

**FREDK. KING & CO., LIM.**  
 26 WARING STREET, BELFAST, and  
 3 and 6 CAMOMILE ST., E.C.

**THE NEW DIETETIC EFFERVESCING**

**KEF. MILK DRINK. KEF.**  
 The most easily assimilated Food in Wasting Diseases.  
 PREPARED AND DELIVERED DAILY BY THE  
 SOLE MANUFACTURERS,  
**SPRING & CO., 21 Blenheim Road, N.W.**  
 TRADE MARK: HEBB

**'RAMORNIE.' LIEBIG'S Extract of Meat.**

As supplied to the War Office.

1 lb. Jars ..... per lb.	8/2	..... per doz.	74/0	2-oz. Jars ..... per lb.	7/0	..... per doz.	10/6
1 lb. Jars ..... "	6/4	..... "	38/0	1-oz. Jars ..... "	7/8	..... "	5/9
oz. Jars ..... "	6/7	..... "	19/9	½-oz. Jars ..... "	8/0	..... "	3/0

Write for Detailed Price List to the Australian Meat Co., 9 and 11 Fenchurch Avenue, E.C.

6 lbs. Carriage Free.

# TO AERATED WATER MANUFACTURERS.

# HAY'S

# SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION: INTERNATIONAL FOOD EXHIBITION, AGRICULTURAL HALL, LONDON, OCTOBER, 1880.

GOLD MEDAL: SOCIETY OF ARTS, PARIS 1883.

HAY'S

## HOP ALE ESSENCE.

"Supplies an excellent stomachic, appetising, and agreeable summer drink."

*Brewers' Journal.*

"For this Essence a brilliant future may be anticipated. It possesses characteristics very seldom to be met with."

*Mineral Water Trade Review.*

## HAY'S HOP ALE.

"This is an excellent Non-Alcoholic beverage."

*The Lancet.*

"Evolves a delicious aroma of Hops."—*Medical Press.*



## GINGER CHAMPAGNE.

(Made from Hay's Essence.)

"An excellent and most agreeable beverage."

*The Let.*

"Mr. Hay has caught the fine aroma of ginger with remarkable success. It is really sparkling but more refreshing than its rival, the Royal French Beverage."

*The Chemist and Druggist.*

## GINGER ALE

(Made from Hay's Fined Essence.)

"It pours out with as good a 'head' as any glass of and possesses all the fine aromatic flavour of the pure ginger."

*The Chemist and Druggist.*

## HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of Transparent Aerated Waters, and for all Dietetic, Medicinal, and Pharmaceutical purposes. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

## HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

## HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliance, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

## HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

## HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

## HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour to the Lemon."—*The Chemist's Journal.*

## HAY'S LEMON FLAVOUR. (Perfectly Soluble.)

Is prepared from the Finest Messina Lemons, and imparts to Lemonade all the Fine Aroma and Flavour of the fresh fruit, and an Exceptionally Fine Essence. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d. Quantity required, one and a half fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

## HAY'S HOP ALE ESSENCE.

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. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

For Orange, Vanilla, and all other Essences send for Price List. [2]

# W. HAY, Manufacturing Chemist, Beverley Rd., HULL. ENGLAND.

The difference between preparations made from HAY'S ESSENCES and those made from the numerous SPURIOUS IMITATIONS of them bearing the name of SOLUBLE ESSENCES is most marked, and no manufacturer using the latter can compete with one using HAY'S PREPARATIONS, as is universally known.

Indentors, to prevent disappointment, should specify that the Goods are to be of HAY'S MANUFACTURE.



SUPPLEMENT

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE—The Folios shown in this Index are those at the FOOT of the Page, and NOT at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page

(A)

Table listing advertisers under section (A) with their respective page numbers.

(B)

Table listing advertisers under section (B) with their respective page numbers.

(C)

Table listing advertisers under section (C) with their respective page numbers.

(D)

Table listing advertisers under section (D) with their respective page numbers.

(E)

Table listing advertisers under section (E) with their respective page numbers.

(F)

Table listing advertisers under section (F) with their respective page numbers.

(G)

Table listing advertisers under section (G) with their respective page numbers.

(H)

Table listing advertisers under section (H) with their respective page numbers.

(I)

Table listing advertisers under section (I) with their respective page numbers.

(J)

Table listing advertisers under section (J) with their respective page numbers.

(K)

Table listing advertisers under section (K) with their respective page numbers.

(L)

Table listing advertisers under section (L) with their respective page numbers.

(M)

Table listing advertisers under section (M) with their respective page numbers.

Foot of Page

Table listing advertisers under section (N) with their respective page numbers.

(N)

Table listing advertisers under section (N) with their respective page numbers.

(O)

Table listing advertisers under section (O) with their respective page numbers.

(P)

Table listing advertisers under section (P) with their respective page numbers.

(R)

Table listing advertisers under section (R) with their respective page numbers.

(S)

Table listing advertisers under section (S) with their respective page numbers.

(T)

Table listing advertisers under section (T) with their respective page numbers.

(V)

Table listing advertisers under section (V) with their respective page numbers.

(W)

Table listing advertisers under section (W) with their respective page numbers.

(Y)

Table listing advertisers under section (Y) with their respective page numbers.

CLASSIFIED LIST OF ALL ADVERTISERS

Those whose Names do not appear above are published in one of the other issues of this month.

Main classified list of all advertisers categorized by product type such as ACID, ALKALOIDS, ANALYSIS, APPARATUS, BISMUTH, BLOOD MIXTURE, BOOKS, BOTTLES, BRUSHES, BUTTER, CAMPHOR, CARBON, etc.

**CAPSULES**  
Denoual, J. (Medicinal)  
Duncan, Flockhart and Co.  
(Casarea & Nevada)  
Durant, F. and Co.  
Evans, Sons and Co.  
Hooper, B., and Co.  
Maw, Son and Thompson

**CAPSULES (METALLIC)**  
Betts and Co.  
Melin, C. (Machine)

**CARMINE**  
Bush, W. J., and Co.  
Sellers

**CATALOGUE**  
Evans, Sons and Co. (Price Current)  
Maw, Son and Thompson (Price Current)

Newbery and Sons  
Sanger and Sons  
Thompson, Millard and Co.

**CHEMICALS**  
Bennett and Jenner  
Bush, W. J., and Co.  
Dunn and Co.  
Fletcher, Fletcher & Stevenson  
Gaskell, Deacon and Co. (Bicarbonates of Soda)  
Hill, A. S., and Son  
Howards and Sons Pharmacia (Chemical)  
Kuhn, B.  
Levermore, Aug., and Co.  
May and Baker  
Middleton, Kirkpatrick and Barr  
Morris, Callard, and Co.  
Oscar Andraee and Co.  
Frank, Davis and Co.  
Stern, G. and G. (Pumilene)  
Sumner, R., and Co.  
Smith, T. and H., and Co.  
Tyrke and King  
White, A., and Sons  
Zimmermann, A. and W.

**CHALK PRECIP.**  
Dunn and Co.  
Levermore, Aug. and Co.  
White, A., and Sons

**CHEST PROTECTRS**  
Maw, Son and Thompson  
Wood, V.

**CELESTOR OF POTASH**  
(Compressed Tablets)  
Burroughs, Wellcome and Co.  
Hooper, B., and Co.

**CHLORIDE OF GOLD**  
Oscar Andraee and Co.  
Rowland, J.

**COLOES OF LIME**  
Government Sanitary Co.  
National Chemical Co.  
New Carbolic Sanitary Co., Ltd.

**CELESTORINE**  
Blyton-Bage and Co. (Twelve-lo's)  
Burroughs, Wellcome and Co. (Warrington & Bawnes)  
Freeman, R.  
Thomas, Wakeham and Co.  
Towle, A. P.

**CELESTORFORM, &c.**  
Duncan, Flockhart  
Macfarlan, J. F.  
Smith, T. and H.  
Zimmermann

**CIGARETTES**  
Evans, Sons and Co.  
French Hygienic Co. (Cocoa)

**CITRIC ACID**  
(Essentials "Phospho")  
Nascio, Aveline and Co.

**COCAINE**  
**HYDROCHLOR**  
Howards and Sons

**COCA WINE**  
Armbricht, Nelson and Co.  
Evans, Sons and Co.  
French Hygienic Co. (Cigarettes and Tobacco)

**COCOA & CHOCLET**  
Cadbury (Malted)  
Van Houten's Cocoa

**COD-LIVER OIL**  
Allen and Hanbury's  
Burgoyne (Peptelaine)  
Burroughs, Wellcome  
Evans, Sons and Co.  
Hertz & Collinwood (Jensen's)  
Hill, A. S., and Son  
Lorimer and Co.  
Smith, T. J.  
Woolley, Sons and Co.  
Wright, Layman and Umney

**COFFEE**  
Birmingham and Co. (Coffee Essence)

**COLLAPSIBLE TUBES**  
Betts and Co.  
Brooks, H., Peel and Co.

**COMBS**  
Sherlock Bros.

**COMPOSITION ESSENCE**  
Potter and Clarke

**COMPRESSED MDCNS**  
Allen and Hanbury's  
Burroughs, Wellcome and Co.  
Hooper, B., and Co.

**CONCENTRATED LIQUORS**  
Evans, Sons and Co.  
Fletcher, Fletcher & Stevenson  
Keith, B., and Co.  
Thompson, A., and Son

**CONFECTIONERY**  
Bage, Blyton and Co.  
Gibson, H., and Sons  
Kerfoot, T.  
Soden Mineral Pastilles  
Warrick Brothers

**CORN CURES**  
Maw, Son and Thompson  
Robinson, B.

**COTTON WOOL**  
Haynes G., & Co. (Absorbent)  
Maw, Son and Thompson  
Robinson and Sons (Absorbent)  
Sanger, J., and Sons  
Seabury and Johnson  
Thompson, Millard and Co.

**DETERGENTS**  
British Hygienic Co.  
Jewellery and Brown  
Newbery and Sons  
Butt, O., and Co.  
Thompson and Capper  
Wood, V., Area N<sup>o</sup>.

**DISINFECTANTS**  
Government Sanitary Co.  
National Chemical Co.  
New Carbolic Sanitary Co., Ltd.  
Sanitas Co.

**DOG MEDICINES**  
Spratts (Patent)

**DRUGGISTS' SUN.**  
Ayrton and Saunders  
Leocher, and Wehl  
(Hayley's Counter Adjuncts)  
Evans, Sons (Savars)  
Hill, A. S., and Son  
Idris and Co.  
Lynch and Co.  
May, Roberts and Co.  
Newbery, F., and Sons  
Sanger and Sons  
Schmetz and Co.  
Sherlock Bros.  
Soul, W. H., and Co.  
Thompson, Millard and Co.  
Toogood, W.  
Wood, Vincent

**DRUMS, CANS, &c.**  
Noakes and Co.

**DYES**  
Ayrton and Sanders  
Prunk, Davis and Co.

**EFFERVESCENT**  
Allen and Hanbury's (Saline)  
Fishop, A., and Sons  
Curtis and Co.  
Evans, Sons and Co.

**ELECTRIC APPAR.**  
Colthurst & Harding (Electric Light Oil)  
Barton, F., and Co.  
F. C. Haxler, A.  
Orme and Co.

**EMBROCATION**  
British Hygienic Co.  
Clark, W.  
William, Sons and Co.  
Kennedy Co. (Limited) (Seven Seals)

**ENEMAS**  
De Pass & Co.  
Ingram and Son  
Lynch and Co.  
Maw, Son and Thompson  
Sanger and Son

**ENGRAVERS**  
Barker, W., and Son

**ESSENCES, FRUIT AND SOLUBLE**  
Brady and Hincliffe  
Burgoyne, Burhidges and Co.  
Bush, W. J., and Co.  
Bush, W. J., Son and Co.  
Carter, H. W., and Co.  
Hay, W.  
Idris and Co.  
Lorimer and Co.  
May and Baker  
Oldfield, Pattison and Co.  
Stevenson and Howell  
Tyrke and King  
Tyrer, F. (Anchovies)  
Vogt, G.  
Woolley, Sons and Co.

**ESSENTIAL OILS**  
Bush, W. J., Son and Co.  
Bush, W. J., Lemons, &c.  
Cocking (Japan Peppermint)  
Evans, Sons and Co.  
Jackson, J., and Co.  
May and Baker  
Nascio, Aveline and Co.  
Rocke, Tompsitt & Co. (Egyptian)  
Stallman and Fulton  
Stevenson and Howell  
Synce and Co.  
Todd, A. M.  
Vogt, G.  
Warrick Brothers  
Wright, Layman and Umney

**ETHER**  
Duncan, Flockhart and Co. (Chloric)  
Howards and Son  
May and Baker  
Robbins  
White, A., and Sons

**EXTRACT, MEAT**  
Australian Meat Co.  
Brand and Co.  
Coles and Co.  
Liebig Co.  
Liebig's Wine Co.  
Vikinz Food and Essence Co.

**EUCALINUM**  
Rocke, Tompsitt and Co. (Antiseptic Poultice and Vinegar)

**EXTRACTS, FLUID**  
Allen and Hanbury's  
Harber, G., and Co.  
Burgoyne, Burhidges  
Evans, Sons & Co.  
Fletcher, Fletcher & Stevenson  
Heaton, Squire and Francis  
Oldfield, Pattison and Co.  
Potter and Clarke

**FEEDING BOTTLS.**  
Kilner Bros.  
Maw, Son and Thompson  
May Roberts and Co.  
Pocock, Keevil and Co.  
Savars  
Thompson, Millard  
Toogood, W.

**FILTERING**  
Donlon and Co.  
Mawson Swan, and Weddell  
Slack & Brownlow  
Sillicated Crbn Filtr Co.

**FLY PAPERS**  
Ford, Shapland and Co.

**FOAM PRODUCERS**  
Bush, W. J., and Co.

**FOOD WARMERS**  
Clarke, S.

**FOOD (Infants & Invalids)**  
Allen and Hanbury's  
Benger's Patentised Brand and Co.  
Burroughs, Wellcome (Peston-Goddall, Backhouse and Co.  
Heaton, Squire (Malted)  
International Patents Association (Dr. Mell's Health Biscuits)  
King, F., and Co. (Desiccated Soup)  
Lazenby, E., and Son  
Liebig Co.  
Mottershead and Co. (Benger's Food)  
Nestle, H.  
Spring and Co. (Kef.)  
Van Abbott (Diabetic)

**GINGER ALE**  
Adams, B.  
Harston and Co.  
Hay, W. (Essence)  
Mills, R. M.

**GLYCERINE**  
Fink  
Martindale, W. (Nitro-Glycerine Tablets)  
Maw, Son and Thompson  
Price's Candle Co.

**GRANULAR PREP.**  
Bishop, A., and Sons  
Burroughs, Wellcome and Co.  
Lorimer, and Co.  
Curtis and Co.  
Evans, Sons and Co.  
Heaton, Squire and Francis  
Hill, A. S., and Son  
Wright, Layman and Umney

**GUMS**  
Fink (Arabic &c.)  
Prunk, Davis and Co.

**GUTAPERCHA**  
Duncan, Flockhart

**HAIR PREP.**  
Bates, F. W. (Frizzettes)  
Brodie, J. (Imperial Hair Dye)  
Capper, W. H. (Crinoids).  
Cheesebrough Manf. Co.  
French Hygienic Co.

**HERB BEER EXTS.**  
Adams, B.  
Newball and Mason  
Potter and Clarke

**HERBALISTS**  
Adams, B.  
Newball & Mason (Ext. of Herbs)  
Potter and Clarke

**HOMOEOPATHIC**  
Epps and Co.  
Keene and Ashwell  
Leath and Ross  
Thompson and Capper

**HOP ALE ESSENCE**  
Hay, W.

**HOSPITALS**  
London Homoeopathic

**HYPOPHOSPHITES**  
Duncan, Flockhart and Co.  
Dunn and Co.  
Fellows  
Fletcher, Fletcher & Stevenson  
Ymes & Co.  
S. Wain, H. H. (Dr. Churchill's)  
Tyrke and King  
Yeatman, F. J.

**INK (see MARKING.)**  
Besley and Draper  
Duncan, Flockhart

**INALERS**  
Maw, Son and Thompson  
Toogood, W.

**INSECTICIDES**  
Evans, Sons and Co.  
Keating, T.  
Saniord  
Steiner and Co.

**EXTRACT, MEAT KETCHUP**  
Tyrer, F.

**LAMPS, LIGHTS, &c.**  
Clarke, Samuel ("Fairy")  
Friedland, E. A.  
(Incandescent and Electric)  
Wenham Co., The, Lim.

**LARD**  
Ewen, J.

**LEECHES**  
Fitch and Nottingham  
Potter and Clarke

**LIME JUICE**  
Feltree and Sons (Spé salit)  
Idris and Co.  
Kernick and Son

**LINSEED**  
Idris and Co.  
Mumford, G. S.  
Nell, R. J.

**LINT**  
Liverpool Lint Co.  
Maw, Son and Thompson  
Newsome (Surgons')  
Robinson and Sons  
Seabury and Johnson

**LOZENGES**  
Allen and Hanbury's  
Blyton, Bage & Co. (Medicated)  
Evans, Sons and Co.  
Ginison, R., and Sons (Manfrs.)  
Hill and Co.  
Kerfoot, T.  
Lorimer and Co.  
Martindale, W. (Nitro-Glycerine Tablets)  
Warrick Brothers (Heliotrope Pastilles)

**LOOFAHS**  
May, Roberts and Co.

**MACHINERY**  
Birmingham Machinists' Co. (Printing)  
Bracher and Co.  
Brinjes and Goodwin  
Burroughs, Wellcome and Co.  
Carter, J. H.  
Dale, J., and Son  
Melm, C. (Capsuling)  
Sherwin  
Werner and Pfeleiderer

**MAGIC LANTERNS**  
Hughes, W. C.  
Perkins, Son and Rayment

**MAGNESIA**  
Bishop, A., and Sons  
Bush, Wilson, W.  
Curtis and Co.  
Dinneford  
Henry, T. and H. (Calcein)  
Lorimer and Co. (Citrats)  
Murray, Sir James'onia,  
Oscar Andraee and Co.

**MALT EXT., ETC**  
Allen and Hanbury's  
Burroughs, Wellcome and Co. (Malt Extract "Kepler")  
Eckell  
Heaton, Squire and Francis  
Lorimer & Perfumery Co.  
Paterson's Chemical Manufacturing Co.

**MENTHOL**  
A 1 Menthol Depot, A. W. Shirley, Proprietor  
Banner, E. R.  
Castle Menthol Co.  
Cocking and Co.  
Hockin Wilson and Co.  
Maw, Son and Thompson  
Mikado Menthol Co.  
Shirley, A. W.  
Todd, A. M. (Crystal Oil of Peppermint)

**MARKING INKS**  
Barber, G., and Co. (Crimson)  
Christian, J.  
Hickission, J.

**MEDICINE CHESTS**  
Burroughs, Wellcome and Co.  
Day, Son and Hewitt (Veterin. Day and Sons)

**MERCURIALS**  
Bush, W., and Co.  
Howards and Sons  
May and Baker

**METHYLATED SPIRITS**  
Burroughs, J.  
Harvey, F. W., and Co.  
Jones and Co.  
Macnair, J. & D.  
Phillips, G. and Co.

**METHYLENE**  
Robbins, J., and Co.

**MICROSCOPES**  
Darton, F., and Co.  
Perkins, Son and Rayment

**MIXING MCHRY**  
Bracher and Co.  
Brinjes and Goodwin  
Burroughs, Wellcome and Co.  
Carter, J. H.  
Sherwin, G. E.  
Werner and Pfeleiderer

**MORPHIA**  
Macfarlan, J. F., and Co.  
Smith, T. and H.

**MUSTARD**  
Banner, E. R. (Oil)  
Ramsdon, J. H. and S. (Ess. Oil)

**NEPENTHE**  
Ferry and Co.

**NIGHT LIGHT, &c**  
Clarke, S.

**OILS, PAINTS, &c.**  
Binghamton Oil Refng Co.  
Colthurst and Harding  
Frank, Davis and Co.  
Frederick, The Charles, Co.  
(St. Jacob's Oil)  
Warren, A. and J. (Olin) Oil

**OINTMENT BARS**  
Binghamton Oil Refng Co.  
Cheesebrough (Vaseline)  
De Pass, E. A., & Co. (Paris)  
Grindley (Petroleum) J. J.

**OPTICIANS**  
Darton, F., and Co.  
Hughes, W. C.  
Perkins, Son and Rayment  
Raphael, J., and Co.

**PAINTS OILS,**  
Pajain (Finkler)  
Kuhn, B.

**PARALDEHYD.**  
Zimmermann, A. and B.

**PATENT AGENTS**  
Horn and Son

**PATENT MEDIC.**  
Armbricht, Nelson & Co. (Wine)  
Atkinson (Infant) Preser.  
Beecham (Pills)  
Beedler, J., and Co.  
British College (Morris)  
Burgess, E. (Jody Ointmt)  
Crouch, F. B. (Wafers)  
Edwards and Son  
Evans, Leacher (Hoy's Counter Adjuncts, Med. Pills, &c.)  
Fenning's (Powders)  
Holloway (Pills and Oils)  
Hop Bitters Co.  
Kemp, W. H. (Whoop) J.  
Lalage, (Pneumonia),  
Lincoln (Clarke's) Mix. J.  
Loock, Dr. (Wafers)  
Lynch and Co.  
May, Roberts and Co.  
Mercis, J.  
Munday, J. (Injection D)  
Newbery and Sons  
Ratti and Co. (Meuphro)  
Richter's, Dr. (Pain Exp) A.  
Roberts (Foreign) Savars  
Singleton's Eye Ointment  
Soul, W. H., and Co.  
Thompson, Millard and Co.  
Vogler, The Charles & Co. Wilson, W. (Toothache Pellets)

**PERFUMERY, FANCY SOAP**  
Atkinson, J., and Co.  
Atkinson, J., and E. Biggeston, A. E. B.  
Bocknell, Turner and Co.  
British Hygienic Co.  
Burroughs, Wellcome and Co.  
Cheesebrough Manufacturing Co.  
Crawford  
De Pass & Co. (Peach Blossom)  
Durrant, Geo.  
Evans, Sons and Co.  
Ewen (Savars)  
Hall's Wood Violet  
Gressill, T. S., and So. (Mona Bouquet)  
Mack, H.  
Mann, C. A., and Co.  
Maw, Son and Thompson  
Newbery and Sons  
Pear's Soap (Dirty Boy)  
Royal Perfumery Co.  
Sainsbury, B. (Lav. Wafers)  
Sanger and Sons  
Shirley, A. W.  
Stern, G. and G. (Pumilene)  
Treat, H. C.  
Warrick Brothers  
West, T. (Ozell's) Mona)  
Whitaker & Cross (M)  
Whitaker, Sons and Co. (Perf)

**PEPPERMINT**  
Jackson, J., and Co.  
Todd, A. M. (Crystal Oil of Oil of Peppermint)

**PEPSINE, &c.**  
Burroughs, Wellcome and Co.  
Fletcher, Fletcher & Stevenson  
Newbery (Ingwin)

**WARNER and Co. (English) Zimmermann**

**PEROX. OF HYD.**  
Dunn and Co.  
Robbins

**PHARM. PREPS.**  
Allen and Hanbury's  
Barron, Squire and Co.  
Benger's  
Bngress, Willows, Francis  
Burgoyne, Burhidges  
Burroughs, Wellcome  
Duncan, Flockhart  
Ferry and Co.  
Fletcher (Lgrs. for Syrns)  
Heaton, Squire and Francis  
Hewlett and Sons  
Hill, A. S., and Son  
Hooper, B., and Co.  
Howards and Sons  
Keith (Conc. Tincture)  
Kuhn, B.  
May & Baker (Phenacetine, etc. analgesic, Nitroglycerin)  
Sellers, J.  
Southall Bros.  
Tyrke & King  
Woolley, Sons  
Wyleys (Various)

**PICTOGRAPHIC**

Bright and Grey  
Hards and Son (Chemicals)  
Pien, Son and Rayment  
Mon and Co.  
and Baker  
O. Andrieu and Co.

**PISTERS**

Fouche, Wellcome and Co.  
Mer. W.  
N. S. and Thompson  
S. Almas, A. De  
S. Fry and Johnson  
S. W. F.

**PILLS (Coated, &c.)**

Allen and Banbury (Wholesale)  
Pearl Coated  
Bon, Harveys and Co.  
Bram, Thomas  
Eis, Sons and Co.  
Horn, Squire and Francis  
H. A. S. and Sons  
Hr. Dr.  
Knot, T. (Sugar Coated)  
Liner and Co.  
Mason and Robbins Ovoid  
Mason and Co.  
Nery and Sons  
Ser, J. and Sons  
Sih, W. F.  
Small Bros. and Barclay  
San, H. H.  
War, W. R. (Coated)  
Wys and Co.

**PIL MACHINES**

M. Son and Thompson  
Rison, J., and Co. (Coating)  
T. Wood, W. (Coater)

**POPHYLLIN, &c.**

Eh, B. and Co.  
Sib, T. and H.

**POCELAIN GDS.**

Fa, H., and Co.  
T. Wood (E.c. Pots, regist.)

**POISHING**

Bogartner (La Brillantine)  
Bley, Bourdas (Albatum)  
Ck, W.  
O. F. John, and Sons

**PINTING**

Bingham Machinists' Co.  
Brs Bros.  
Fimile Apparatus Co.  
F. Shadieu and Co.  
Sprick, H.  
Tasend, J. (Exeter)

**PUILINE**

Boughs, Wellcome and Co.  
S. G. and G.

**QUININE SALTS**

Brumleu, C. (Pelletier's Quinine)

**HOWARDS AND SON**

Oscar Andree and Co.  
Zimmermann

**RENNET**

Benser's (Essence of)  
Johnsen and Jorgensen

**SACCHARINE**

Allen and Hanburys  
Burroughs, Wellcome and Co.

**SALICINE**

Macfarlan and Co.  
Smith, T. and H., and Co.

**SAUCES, PICKLES**

Goodall, Backhouse and Co.  
Lazenby (Harvey's)  
Tyner, P.

**SEA SALT**

The Maldon Crystal Salt Co.  
Warren, A. and J. (Stoddart's Sea Salt)

**SCHOOLS OF PHARMACY, HOSPITALS, &c.**

Edinburgh Classes  
Liverpool School  
London Homeopathic and Medical School  
Manchester College  
South London School of Pharmacy, Lim.  
The School of Pharmacy  
Tully, J.  
Westminster College

**SEALING WAX**

Fisher, Clark and Co.  
Stewart, G., and Co.

**SELTZOGENES**

Idris and Co.  
May, Roberts and Co.

**SHAVING**

Dukas and Co. (Brushes)  
Hovenden (Kuxess)  
Lloyd, A. S. (Kuxess)

**SMELLING SALTS**

Shirley, A. W.

**SOAP (SOFT, &c.)**

Breckin, Turner and Sons  
British Hygienic Co.  
Chiswick Soap Co.  
De Pass and Co.  
Maw, S., Son and Thompson  
Pearl Soap  
Stern, G. and G. (Pumilne Toilet and Sanitary)  
Whitaker and Grossmith

**SHEEP DIP**

Grindley and Co.  
Tomlinson and Hayward

**SHOP FITTERS**

Bowling and Govier  
Bygrave, J. and W.  
Corran, J. R.  
Howlett, S.  
Nattall, E. (Show Cases)  
Yates, W. S.

**SPECTACLES**

Botwright and Grey  
Darton, F., and Co.  
Raphael and Co

**SPIRIT**

Boord and Son  
Burrough (Pure & Methyl.)  
Harvey, J. W., and Co.  
Jones and Mason (Methyl.)  
Maenair, J. & D.  
Phillips and Co.  
Smith, Stephen and Co.

**SPONGE**

Cresswell Bros.  
Cresswell, R., and Co (Lim.)  
Evens, Sons and Co  
Hutchinson, A., and Co. (Bag)  
Maw, Son & Thompson (Bags)  
Peterson, M.  
Sherlock Bros. (Sponge Bags)

**STAMPS (RUBBER)**

Pollard, A. W.  
Richard, E. M.  
Van Houten and Co.

**STOPPERS**

Austin and Co. (Sprinklers)  
Barnett & Foster (The Eclipse)  
Brooks, Peel (Sprinklers)

**SURGICAL**

Ayrton and Saunders  
Bailey, W. H., and Son  
De Pass and Co.  
Haywood, J. H.  
Hutchinson, A., and Co.  
Ingram and Son  
Liverpool Patent Lint Co.  
Maw, Son and Thompson  
Newsome, C.  
Robinson and Sons  
Thompson, Millard and Co.  
Woolley, Sons and Co.  
Wood, Vincent

**STARCH**

Critchley (Gloss)

**STOVES**

Clarke, S., & Co. (Gas Heating)

**STROPHANTUS**

Burroughs, Wellcome and Co

**SUGAR**

Gibson, R., and Sons  
SYPHONS  
Barnett and Foster  
Idris and Co.  
Kilner Bros.

**SYRINGES**

De Pass and Co  
Summer, R. and Co.

**SYRUPS**

Fletcher Fletcher (Liquors)  
Idris and Co.  
Swann, H. H.

**TARTARI? ACID**

Middleton, Kirkpatrick and Barr

**TEA**

Cassell, J. & Co.  
Cave, Johnson and Co.  
Gt. Tower St. Tea Co.  
Heseldine, Wm., and Son  
Kearley and Tonge  
Walker and Dean, and Co

**TELEPHONES**

Friellaender, A.

**TEREBEN**

Hearon, Squire and Co.

**THERMOMETERS**

Darton, F., and Co.  
Maw, Son and Thompson  
Perken Son and Rayment  
Raphael and Co.

**TIN CANISTERS**

Noakes, B., and Co.

**TOILET FIXTURES**

Downing, J. S.

**TOOTH PASTE**

Jewsbury and Brown  
Maw, Son and Thompson  
Sutton, G., and Co. (Black)  
Woods, M. (Arecas)

**TRADE MARKS**

Horn and Son

**TRUSSES**

Bailey, W. H., and Son  
Evens, Sons and Co.  
Haywood, J. H.  
Lynch and Co.  
Maw, Son and Thompson

**TYPE-WRITING**

Facsimile Apparatus Co.  
Pollard, A. W.  
The Universal "Simplex"  
Type-Writer

**URETHANE**

Howards, Sons and Co.

**VACCINE LYMPH**

Association for the Supply  
of the Pure

**VALUERS AND**

**TRANSF. AGENTS**

Baker, P. C.  
Cridge and Co  
Tomlinson and Sons

**VARNISH**

Clark, W.  
Oltmurst and Harding  
Fronk, Davis and Co

**VERMIN KILLERS**

Battle, J. K.  
Sanford and Son  
Steiner and Co

**VETERINARY**

Clark, W.  
Corner, K. (Devonshire Oils)  
Day and Sons  
Day, Son and Hewitt  
Gregory, W.  
James, R. J. (Blister)  
Scratts (Dogs)  
Tomlinson and Hayward

**VINEGAR**

Rothermat, Making

**WAFERS**

Crouch, F. B. (Damiana)  
Loosek, Dr. (Pulmonic)

**WHELES & EXPT**

**DRUGGISTS**

Allen and Hanbury's  
Barron, Squire and Co.  
Burgess, Willows  
Burgoyne, Burdidge  
Bush, W., Son and Co.  
Evens, Lecher and Webb  
Evens, Sons and Co.  
Evens, Sons and Masoi (Lim)  
Farris and Co.  
Isaker, Stagg and Morgan  
Hearon, Squire and Francis  
Hewlett and Co.  
Lofimer and Co.  
Hill, A. S., and Son  
Oldfield, Fattison and Co.  
Potter & Clarke American, Co.)  
Southall Bros. and Baines  
Summer, R. and Co.  
Symes and Co.  
Thompson, Millard and Co.  
Thompson, H. A., and Son  
Woolley, Jas. Sons and Co.  
Wright, Layman and Umny  
Wrelys and Co.

**WINDOW TABLETS**

Corran, J. R. (Engraved)

**WINES AND SPTS**

Boord and Son  
Coleman and Co.  
Durrant, O. (Orange)  
Goodall, Backhouse and Co.  
Idris and Co. (Quinine Wine)  
Ingram and Rovic  
Liegbig's Wine Co.  
Phillips, G., and Co. (Pure  
Spirits of Wine)  
Sin th, Stephen, & Co. (S.V.K.)  
Robinson, B. (Orange)  
**WOOD WOOL**  
Sanitary Wood Wool Co.

PATRONISED BY HER MAJESTY.

**BARBER'S ORIGINAL**

**CRIMSON MARKING INK,**

WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

ALSO

**BARBER'S CONCENTRATED LIQUID COCHINEAL**

FOR COLOURING JELLIES, CUSTARDS, ETC.

Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

**C. BARBER & CO., CLUB MOOR, LIVERPOOL.**

Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO., Melbourne; ELLIOT BROS., Sydney and Brisbane; KEMPTHORNE, PROSSER & CO., Dunedin and Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers—G. BARBER & CO., Club Moor, Liverpool, England.

# BRITISH HYGIENIC COMPANY'S ALMOND POPOLINE EMBROCATION

NEVER KNOWN TO FAIL

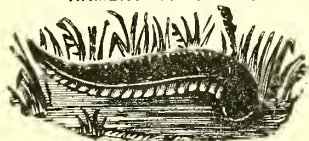
In giving Relief to sufferers from GOUT, RHEUMATIC GOUT, RHEUMATISM, SCIATICA, LUMBAGO, STIFFNESS OF JOINTS, SKIN DISEASES, Chafed or Cracked Skin, Burns, Ulcerous Wounds, Swollen and Tender Feet, Bunions, Corns, Chilblains, and Piles.

In deodorising Perspiration, and preparing the Feet for severe exercise its use is invaluable.

SOLD BY DRUGGISTS AND MEDICINE VENDORS IN  
2/6, 3/6, 4/6 JARS.

VICTORIA WORKS, 4 & 6 BLUNDELL STREET, LONDON N.

HAMBRO SPECKLED.



TRADE MARK  
REGISTERED.

All Orders by Post receive immediate attention.

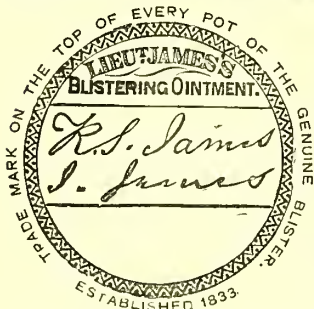
## LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,  
LEECH BREEDERS,  
4 CANONBURY SQUARE, LONDON, N

ESTABLISHED 1833.

## HORSES.—LIEUT. JAMES'S BLISTER.



### CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raines & Co, Edinburgh, are now and have been Agents 55 years.

AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 137 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burbidges & Co., 16 Coleman Street; Lynch & Co., 171A Alder-gate Street; Southall Brothers and Barclay, Birmingham; R. Heyden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Chutehouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia St., Glasgow; John Thompson, 53 Hanover Street, Liverpool; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delcerc, Pharmia in Anglais, Bruxelles.

And by all Chemists, in Pots, 1/6, 2/9, 5/1, 9/1, and 16/1.

COLONIAL AGENTS:—MILBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

W. H. JAMES, SOLE MANUFACTURER, STANFORD, FARINGDON, BERKS  
Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.

Chemists will do well to lay in a Stock of

## SEVEN SEALS

As the same is now being Extensively Advertised

### THE WORLD'S GREATEST PAIN CURE.

SEVEN SEALS. The Greatest Pain Cure Ever.

SEVEN SEALS. Will destroy instantly every form of EXTERNAL and INTERNAL Aches and Pains. Will cure absolutely and immediately RHEUMATIC PAINS OF EVERY KIND, GOUT TORRES, LUMBAGO, SCIATICA, ECZEMA, TOOTHACHE, BUNIONS, BRUISES, BURNS, SCALDS, SPRAINS, WOUNDS, NEURALGIA IN FACE AND HEAD, STIFF JOINTS, DIARRHOEA, COLIC and CRAMPS, and ALL EXCORIATING PAINS, whether EXTERNAL OR INTERNAL.

SEVEN SEALS. Perfectly harmless and pleasant to the taste. May be taken with confidence by Women and Infants as readily as by Men.

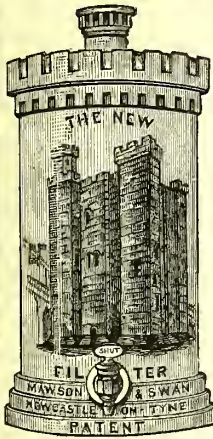
SEVEN SEALS. Twenty years' successful record in America, and Millions of Bottles sold. Thousands of Testimonials of wonderful cures effected by Seven Seals.

SEVEN SEALS. Price 2s. 9d. and 4s. 6d., of all respectable Chemists and Patent Medicine Dealers.

SEVEN SEALS. PROPRIETORS: THE KENNEDY CO., I.M., 112 Southampton Row, London W.C.

THE ONLY FILTERS PROVEN BY ANALYSIS.

# BEWARE



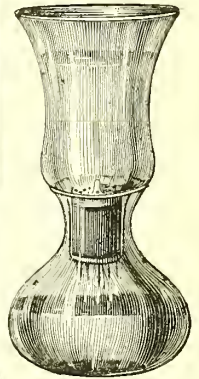
OF DRINKING WATER  
which has not been thoroughly Filtered  
as, besides Lead, Lime in excess, and  
other mineral impurities, most waters  
contain either sewage, the eggs of in-  
testinal worms, and hydatid disease, or  
the

Germ of Infectious Diseases,  
such as Cholera, Dysentery, Typhoid Fever,  
&c.

Repeated analyses have proved that

## MAWSON'S NEW PATENT FILTER

Removes all these impurities, and that it  
is the only efficient, practical, and scien-  
tifically reliable Filter.



Engraved Glass .. 6/6  
Do. with handle  
(with six charges) 7/6

White, decorated 1 2  
Earthenware .. 35/- 45/-

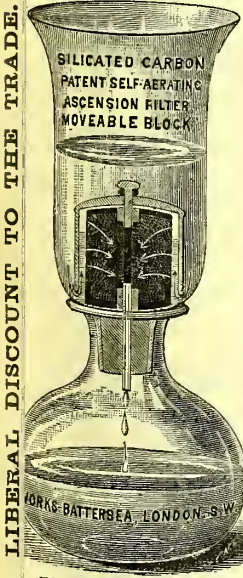
Size— 1 2 3 4 6  
Price, 14/6, 21/, 27/, 35/, 50/.

Plain Glass .. . 4/6  
Do., with handle  
(with six charges) 5/6

**MAWSON, SWAN & WEDDELL,**  
20 West Grainger Street, Newcastle-on-Tyne.

WHOLESALE AGENTS—London: Messrs. S. Maw, Son & Thompson; Messrs. Bentley & Sons; Messrs. Bourne, Johnson & Latimer; Mr. Wilm Toogood; Messrs. Lynch & Co. Manchester: Messrs. Woolley, Sons & Co. Liverpool: Messrs. J. H. & S. Johnson; Messrs. Symes & Co.; Messrs. Evans, Sons & Co. Birmingham: Messrs. Churchhill & Sons; Messrs. Salt & Co. Edinburgh: Messrs. Duncan, Flockhart & Co. Mess. Raimes & Co. Glasgow: Glasgow Apothecaries' Co. Belfast: Messrs. Grattan & Co. Cork: Goulding & Co., Lim.

# LEAD POISONING



So commonly the result of Drinking Unfiltered Water  
is rendered

## IMPOSSIBLE

BY USING

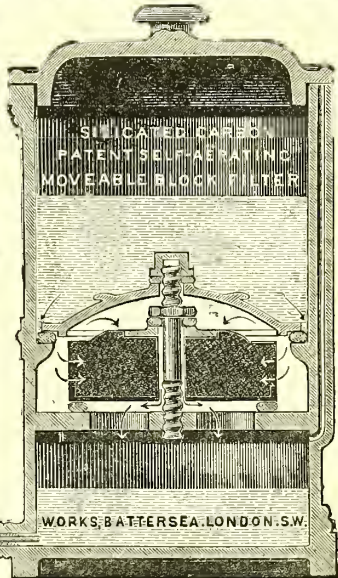
# SILICATED CARBON FILTERS AERATED

Through which no particle of Lead can pass. This fact  
is attested by the leading analysts of the day.

"The most remarkable property of the Silicated Carbon Filter  
appears when its filtering power is tested in the removal of Lead  
from solution . . . I wish to dwell with the utmost emphasis upon  
the value of these Filters for removing Lead."

H. C. BARTLETT, Ph.D., F.C.S

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



LIBERAL DISCOUNT TO THE TRADE.

LIBERAL DISCOUNT TO THE TRADE.

Glass Table Filters.

Domestic Filters.

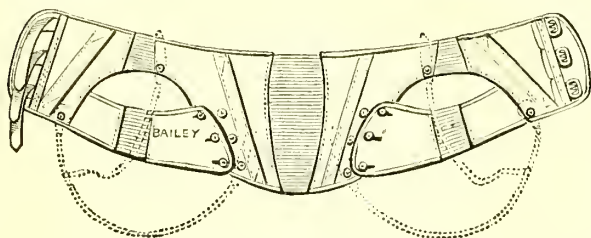
FOR PRICES AND FULL PARTICULARS, WRITE TO THE  
**SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.**

# THE REASON WHY BAILEY'S PATENT ABDOMINAL BELTS



BY ROYAL  
LETTERS PATENT.

Have a **LARGE HOME, FOREIGN, AND COLONIAL SALE** is because they are the only Belts which do not result in disappointment. The difficulty of obtaining a proper fit, except at the hands of an experienced fitter, is well known. These Belts, however, are "**SELF-ADJUSTING**," "**CANNOT RUCK UP**," and adapt themselves so thoroughly that **A MISFIT IS IMPOSSIBLE.**—Vide "**LANCET**," "**BRITISH MEDICAL JOURNAL**," &c.



For Measurement: Circumference of Abdomen at the largest part and Hips.

No. 1.—FOR GENERAL SUPPORT (as g.)

No. 2.—FOR PREGNANCY.

Capable of great expansion.

No. 3.—FOR PROLAPSUS UTERI.

With Improved Indiarubber Perineal Pad and Regulating Straps

No. 4.—FOR UMBILICAL HERNIA.

With Air Pad.

No. 5.—GENT'S RIDING BELT.

(Nos. 2 to 5 ARE MADE IN FOUR QUALITIES, AT PRICES TO SUIT ALL CLASSES).

**THE DISCOUNTS TO SHIPPERS AND THE TRADE ARE THE BEST.**  
Full particulars post free to all parts of the World. Correspondence invited.

## W. H. BAILEY & SON, 38 OXFORD ST., LONDON W.

# SINGLETON'S

250 YEARS' WORLD-WIDE REPUTATION

# GOLDEN EYE OINTMENT

BY FAR THE BEST KNOWN REMEDY FOR ALL DISORDERS OF THE EYES AND EYELIDS.

Recommended and frequently used by DR. WARE, DR. ALEXANDER, MR. CRITCHETT, and other Eminent Physicians.

**CAUTION.**—None offered for Sale can be genuine unless the words SINGLETON'S GOLDEN EYE OINTMENT are engraved on the wrapper. Stamp and round the Pot, and the Bill of Directions in which it is enclosed bears the name and address—

STEPHEN GREEN, 210 Lambeth Road, LONDON, E.

FOR CLEANING PLATE

**BRADLEY & BOURDAS'S  
ALBATUM or WHITE ROUGE,**  
For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S. W

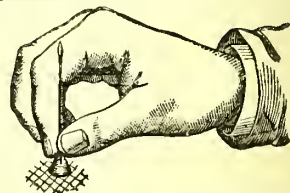
**AN ESTABLISHED NEW YORK  
COMMISSION AGENCY,**

Representing well-known English Manufacturing Chemists, and now doing an extensive business with the Wholesale Drug Trade of America, can introduce Specialities to advantage. Correspondence solicited.

Address—FRANCIS J. MACNAUGHTAN, 20 Cedar Street, New York City, U.S.A.

REFERENCES—T. & H. SMITH & Co., 12 Worship Street, London; MAY & BAKER, Battersea, London ROBERT GRAESSER, Ruabon, Wales.

Trade Mark.



**THE  
ASSOCIATION for the SUPPLY of PUK & VACCINE EMPH,**  
12 PALL MALL EAST, LONDON, S. W.  
SOLE AGENTS FOR DR. WARLDMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.  
HUMAN VACCINE, from healthy children only, microscopically examined and charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen Calf Vaccines, without charge, 5s. Tubes two-thirds full (same as those mentioned above), in quantities for export, 25 per 100 Tubes. Pin-points uncharged, 1s. 1d. per dozen. Vaccinations daily, between the hours of 12 and 3, by the Physician, at the uniform fee of a guinea. P.O.O.'s (including postage London and Westminster Bank), with orders, payable to EDWARD DARKE, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Office hours, 10 to 4 Saturdays, 10 to 2.

# MANN'S PERFUMES.

The accompanying cut represents a facsimile of our Pound Bottle, containing 16 fl. ounces, with elongated and etched stopper for trying the odours. We have arranged our Perfumes into ranks according to popularity and demand; those having the most ready sale comprise the first rank, then, next in order, the second rank, and the third rank. This plan gives the Druggist at a glance a more comprehensive idea of our line, and also enables him to make his selection according to the general popularity of the odours. We would always advise a full line of all the perfumes kept in stock, as the second and third ranks contain many odours desired by persons of special tastes, and, while they are not generally of as ready sale as those of the first rank, yet they are always staple. The goods are all made of the same degree of strength, and are intended to be of equal desirability, yet we will take precedence in popular favour over others. We use only the finest quality of Perfumes, which are especially designed to meet the demand of the best drug trade throughout the world.

**PERFUMES OF THE FIRST RANK IN POINT OF POPULARITY.**

- Lily of the Lake.
- White Lilac.
- White Rose.
- Heliotrope.
- Key Club.
- New Mown Hay.
- Lily of the Valley.
- Purple Flower.
- Wild Lotus.
- Queen of May.
- Bertie Bloom.
- Yong Ylang.
- Sphranotis.
- Violet.

**PERFUMES OF THE SECOND RANK IN POINT OF POPULARITY.**

- Carnation Pink.
- Mignonette.
- Ocean Spray.
- Tuberose.
- Jasmin.
- Moss Rose.
- Pond Lily.
- Frangipanni.
- Orange Blossom.
- Musk Rose.
- Trailing Arbutus.
- Honey Suckle.
- Sweet Briar.
- Sweet Pea.
- West End.
- White Heliotrope.
- Wood Violet.

**PERFUMES OF THE THIRD RANK IN POINT OF POPULARITY.**

- Mu.
- Panholly.
- Red Geranium.
- Tea Rose.
- Roseletia.
- Night Blooming Cereus.
- Essence of Bouquet.
- Misfleurs.

**PRICE LIST.**

	Per doz.
1 oz., assorted odours...	8/
1 1/2 " " " ...	14/
2 " " " ...	20/
2 1/2 " " " ...	32/
3 " " " ...	42/
4 1/2 " " " ...	62/
9 " " " ...	112/
18 " " " ...	216/
1 " " " Tourist	16/
Small trial size, per gross	23/
Large " " "	35/

Illustrated Catalogue furnished upon application.

Our Perfumes combine richness of fragrance with delicacy and permanence of odour. They may be handled and retailed either from bulk or in small packages, both in cold and warm climates, without appreciable deterioration of quality. They take the lead and enjoy the preference in all countries wherever introduced.

Kindly send us your orders, we are,

Yours very respectfully,

**C.A. MANN & CO., 43 MURRAY ST., NEW YORK CITY, U.S.A.**



# The Throat and Voice

LONDON]

888

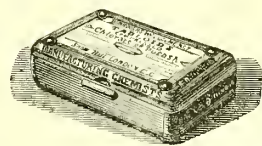
## Chlorate of Potash Tabloids.

FOR AFFECTIONS OF THE VOICE, THROAT, AND RESPIRATORY SURFACES GENERALLY.

By using these Tabloids the drug is effectually brought in contact with the oral mucous surfaces as a continuous gargle, and its specific action made certain. In acute sore throat, Chlorate of Potash "usually relieves the uneasiness in a few hours" (Cohen). "It is used in ulcerated mouth and follicular pharyngitis, and has been employed in croup, diphtheria and spasm of the larynx" (Brunton).

"Of convenient size, they are beautifully made; and, as they dissolve slowly in the mouth, are well suited for throat affections."—The LANCET.

Supplied in beautifully graven white metal boxes, blue silk label, at 4/ and 8/6 dozen. Retail prices, 6*d.* and 1*s.*

Retail price, 6*d.*

## Chloride of Ammonium Tabloids.

The solvent and discutient as well as antiphlogistic powers of Chlorate of Potash are well known, and have led to its extensive employment, especially in Germany, in cases of sore throat and bronchitis, attended with abundant secretion of thick and tough mucus or phlegm. Physicians will at once appreciate the great advantage to their patients of the local effects of this salt slowly dissolving and coming in direct contact with the inflamed surface. It at once mitigates the cough or irritation, and lessens expectoration. Two or three of the Tabloids will sometimes entirely relieve coughs that have long resisted treatment with ordinary remedies. One may be dissolved occasionally on the middle of the tongue, not near the tip.

Supplied in oval bottles, at 4/6 and 12/6 per doz. Retail prices, 6*d.* and 1/6.

## Sal Prunella Tabloids.

"A popular remedy, sometimes successful in mild cases of incipient inflammatory sore throat, is a small piece of nitre allowed to dissolve slowly in the mouth" (Waring). "An excellent saline for throat cases, having very marked local efficacy when slowly dissolved on the tongue. It is a popular remedy, and for mild inflamed sore throat its ancient reputation is deserved."

Directions.—One or more (5 gr.) Tabloids should be dissolved slowly in the mouth for the local effect.

Supplied in bottles of 100 at 22/ per doz. Retail price, 2/6.

## Tabloids of Compressed Chlorate of Potash with Borax.

CHLORATE OF POTASH is proverbially known to quickly relieve hoarseness, irritation of the throat and bronchi, and when taken early may avert a cold.

BORAX has a high reputation for hoarseness and "clergyman's sore throat" (Waring). It is prescribed for aphonia and over-use of the voice (Rifer), diphtheria (Budd), aphthous ulceration in phthisis (Watson), and cracked tongue (Brunton).

It is preventive of catarrhal troubles of the nose, throat, and larynx, and for those about to speak or sing is excellent to clear the voice.

The Tabloids afford an agreeable form in which to prescribe Borax.

Potash and Potash and Borax Tabloids supplied in beautifully graven white metal boxes, pink silk label, 4/ and 8/6 per doz. Retail prices, 6*d.* and 1*s.*

## Voice Tabloids.

The Voice Tabloids contain COCAINE, CHLORATE OF POTASH and BORAX.

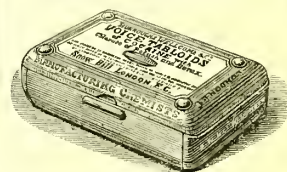
CHLORATE OF POTASH is acknowledged to be of the greatest value in affections of the mouth and throat, relieving hoarseness, subduing inflammation, and sweetening the breath.

BORAX is highly esteemed for clergyman's sore throat, aphonia from over-use of the voice, diphtheria (Budd), aphthous ulceration in phthisis, and cracked tongue. Notably it is preventive of diseases of the nares, throat, and larynx, but taken a few minutes before speaking or singing will clarify the voice.

Cocaine has been much employed by throat specialists, and is highly valued in many affections of the pharynx and larynx. It allays irritability, and when not employed in too large doses, fuller, clearer, richer tones are alleged to follow at once upon its use. It relieves the dysphagia of phthisical laryngitis, and, indeed, pain in the throat from any cause whatever. The most agreeable form in which to prescribe Cocaine is in the Voice Tabloids with Chlorate of Potash and Borax.

Voice Tabloids supplied in beautifully graven white metal boxes, blue silk label, 8/ and 16/ per doz. Retail prices, 1*s.* and 2*s.*

BURROUGHS, WELLCOME & CO., Manufacturing Chemists, Snow Hill Buildings, London, E.C.

Retail price, 1*s.*

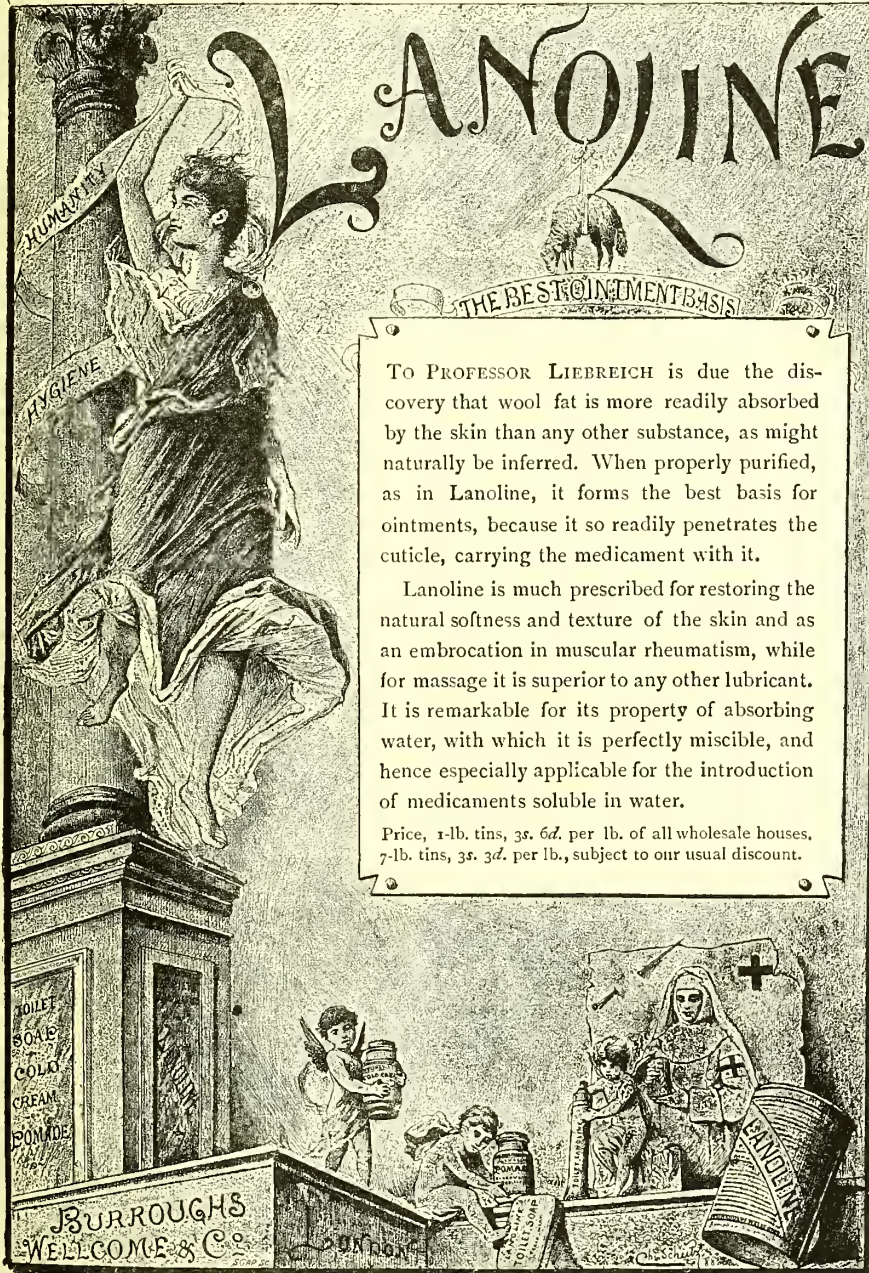


# LANOLINE TOILET SOAP.

This delightful Toilet Soap is especially useful in Skin affections, as it is prepared from the purest and best materials, is free from excess of alkali, and possesses the great advantage of the presence of Lanoline, which dissolving in the water, being absorbed by the skin, exerts its healing, soothing, and antiseptic properties in preventing roughness, chapping, and wrinkles.

Price, 8s. per dozen, of all wholesale houses, subject to our usual discount. Retail price, 1s. per cake.

LANOLINE COLD CREAM, Being made from a fat natural to the skin, is completely absorbed by it, producing a fresh elastic texture free from pimples, abrasions, and wrinkles. Price, 14s. per dozen, subject to our usual discount. Retail, 1s. 6d. per jar.



TO PROFESSOR LIEBREICH is due the discovery that wool fat is more readily absorbed by the skin than any other substance, as might naturally be inferred. When properly purified, as in Lanoline, it forms the best basis for ointments, because it so readily penetrates the cuticle, carrying the medicament with it.

Lanoline is much prescribed for restoring the natural softness and texture of the skin and as an embrocation in muscular rheumatism, while for massage it is superior to any other lubricant. It is remarkable for its property of absorbing water, with which it is perfectly miscible, and hence especially applicable for the introduction of medicaments soluble in water.

Price, 1-lb. tins, 3s. 6d. per lb. of all wholesale houses, 7-lb. tins, 3s. 3d. per lb., subject to our usual discount.

Is prepared from the fat which is natural to the hair, and hence is absorbed by it at once, giving it a natural and beautiful gloss, and supplying the lack of proper nourishment, which is the cause of greyness and loss of hair. Price, 14s. per dozen (subject to our usual discount), 1s. 6d. per Jar.

## LANOLINE POMADE

# TOILET LANOLINE.

(In Collapsible Tubes.)

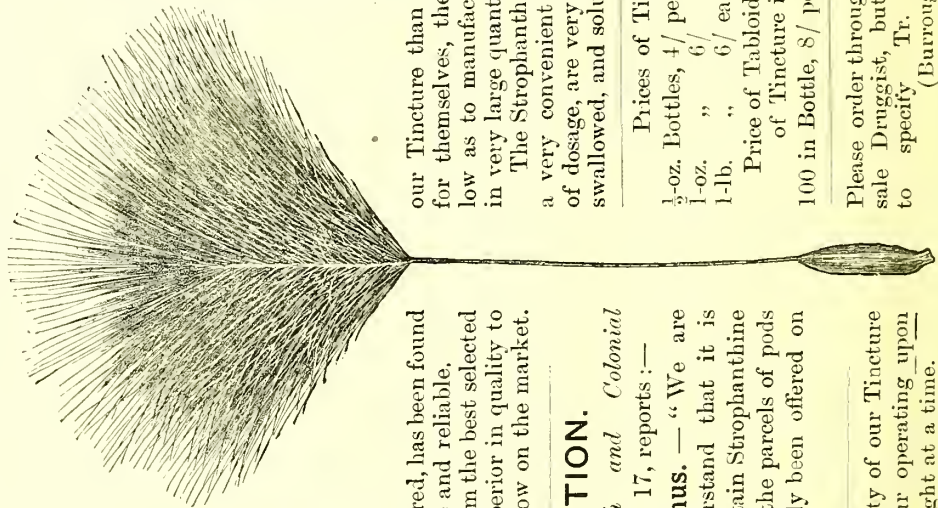
Toilet Lanoline is very similar to the Lanoline Cold Cream, but in smaller packages and at a less price. It is especially convenient for Travellers.

"Messrs. BURROUGHS, WELLCOME & Co. are now supplying 'toilet lanoline,' a delicately perfumed article, in collapsible metallic tubes, six of which are attached to a card, and the whole fixed in a cardboard box, from which the card may be removed if desired. The tubes are for retail sale at sixpence."—From THE CHEMIST AND DRUGGIST, March 17, 1888. Price, 4s. 6d. per dozen tubes. Retail, 6d. each.

THE ORIGINAL AND ALWAYS RELIABLE AND UNIFORM  
**TINCTURE & TABLOIDS of STROPHANTHUS**

Now supplied by us at less than it can be made for, excepting in very large quantities.

As is well known we were the first to import Strophanthus in quantity, and our Tincture, which was the first offered, has been found uniformly active and reliable. It is made from the best selected seed, greatly superior in quality to some which is now on the market.



As our price is now greatly reduced, we believe the trade will find it more to their interest to use our Tincture than to manufacture for themselves, the cost being as low as to manufacture, excepting in very large quantity.

The Strophanthus Tabloids are a very convenient and exact form of dosage, are very portable, easily swallowed, and soluble.

Prices of Tincture—  
 3-oz. Bottles, 4/ per dozen, subject.  
 1-oz. " 6/ " "  
 1-lb. " 6/ each " "  
 Price of Tabloids, 2 minims of Tincture in each—  
 100 in Bottle, 8/ per doz., subject.

Please order through your Wholesale Druggist, but be particular to specify Tr. Strophanthus (Barrroughs).

**CAUTION.**

*The British and Colonial Druggist*, March 17, reports:—  
**Strophanthus.**—"We are given to understand that it is impossible to obtain Strophanthine from several of the parcels of pods which have lately been offered on the market."

The uniformity of our Tincture is secured by our operating upon two hundredweight at a time.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

**DRAPER'S INK (DICHROIC)**

THE NEW BLACK INK, different from anything else ever produced. Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.  
 Does not corrode Steel Pens.  
 Dries rapidly on the Paper.  
 Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS and SON, 157 Queen Victoria Street, E.C.; F. NEWBERRY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; HAYDEN and CO., 10 Warwick Square, Paternoster Row; HOVENDEN and SONS, City Road; AYTON and SAUNDERS, Duke Street, Liverpool; GOODALL, BACKHOUSE and Co., Leeds; JNO. HEYWOOD, John Dalton Street, Manchester; JAMES HEMINGTON, 6 Moor Street, Birmingham; HENRY HODDER, Broad Street, Bristol.

**BEWLEY & DRAPER, Limited, DUBLIN.**

See "CHEMIST AND DRUGGIST," December 15th, 1874.

**MARION'S PHOTO SUPPLY WAREHOUSE**

Manufacturers of Britannia Dry Plates. Chloride and Bromide Plates.  
 Albumenised & Ready Sensitised Papers. French Mounts for Photographs.  
 PHOTO OUTFITS, &c., &c.

**NEW AMATEUR CATALOGUE**

NOW READY, with List of Special Discounts to Chemists and Opticians.

**22 AND 23 SOHO SQUARE, LONDON, W.**



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE :

NORMANBY CHAMBERS, MELBOURNE.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

sent free to every country in the world. Single copies, 4d. each

Supplied only to persons connected with the Trade

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

Literary Contents.

PAGE	PAGE		
Bankruptcy Reports .....	395	Gazette .....	391
Barley Vine .....	408	German Pharmaceutical News .....	388
Bentley Testimonial Fund .....	401	Leaderettes .....	400
Corner Students .....	384	Marriages .....	391
Correspondence:—		Metropolitan Reports .....	385
The Pharmacy Acts Amend-		New Companies .....	385
ment Bill .....	409	Notes on Novelties .....	397
The Pharmaceutical Society	410	Personalities .....	400
Botanical Curiosities; Pre-		Post-Card Competition: Mr.	
liminary Examinations;		Blank's Advertisement .....	392
The Incorporated Society;		Provincial Reports .....	385
Wm. Ferris; Otto of Rose	411	The Ptomaines. By Dr. A. P.	
Dismissing Notes .....	411	Luff .....	389
Lay Queries .....	412	Trade Notes .....	400
Miscellaneous Inquiries .....	412	Trade Report:—	
Editorial Notes:—		London .....	404
Unqualified Managers .....	398	Amsterdam .....	407
Absence in Hospitals .....	399	Chemicals in the North of	
Fruit (Pharmaceutical News) .....	388	England .....	408
Fruit <i>Evolvia fraxinifolia</i> . By		Private v. Government Cin-	
H. W. Bingham .....	394	chona-growing in Java .....	408

Next week being Easter week, we shall have to close for preparation earlier than usual, in order to be sure of our foreign mail. Advertisements for assistants, situations, &c., will not, therefore, be available for insertion if they reach us later than the first post on Thursday morning.

POST-CARD COMPETITION, No. 3.—We remind subscribers that his competition will close on Saturday of next week, March 31. We ask for election addresses on post-cards supposed to be issued by Mr. Blank, pharmaceutical chemist, whose name we assume is a candidate for the Pharmaceutical Council. We shall try to award the prize to the author of the address which most effectively presents any pharmaceutical policy, without regard to whether that policy may be in our view either wise or popular.

THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5s. per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia*. Single copies can be supplied at 6d. each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

PARLIAMENTARY NEWS.

THE PHARMACY ACTS AMENDMENT BILL.—In the House of Lords on March 16, the Earl of Milltown moved the third reading of this Bill, which was passed without opposition. The Bill has now passed through the House of Lords.

APPRENTICESHIP INDENTURES.—In the House of Commons on Monday, Mr. Bristowe asked the Secretary to the Treasury what was the annual revenue from the stamp duties on the indentures of apprentices, and whether the Government would take into consideration the propriety of substituting for the present *ad valorem* duty of about 5s. charged on the premiums paid by apprentices a small stamp applicable to all cases. In reply Mr. Jackson said the annual revenue from the stamp duties on indentures of apprentices cannot be stated, not being separately recorded. The Board of Inland Revenue do not think that there is any occasion to interfere with the present scale, which they have no reason to believe is regarded as too high.

GOVERNMENT CONTRACTS.—A question was put by Mr. Hanbury on Monday to the Postmaster-General, in reference to the Government contract for post-cards, newspaper wrappers, and stamped envelopes. The Postmaster-General's reply, which was unusually frank for a Minister, is worthy of very careful note by economists and all taxpayers.

Mr. Raikes said: In 1840 the duty of making what was then called "franking-stamps" and postage-envelopes was entrusted to the Commissioners of Stamps and Taxes, the predecessors of the present Board of Inland Revenue. This function now includes the supply of English thin cards, English stout cards, newspaper wrappers, and English envelopes of three sizes—for the manufacture of which articles contracts were, I understand, made in the year 1830 by the Board of Inland Revenue with the firm of De La Rue & Co. I believe that these contracts were made for ten years from that date. As far as I can ascertain, these contracts were made

*without any competition.*

The officials of the Inland Revenue are not responsible to, or controlled by, the Postmaster-General in making such contracts, but act, I presume, upon their own discretion. I have no official knowledge which would enable me to give a precise answer to my hon. friend's last question, but from inquiries which I have endeavoured to make unofficially, I am led to believe that, out of the sum of nearly 100,000*l.*, the present annual net charge of De La Rue & Co. for supplying these articles,

*not much less than half may be estimated as net profit*

to them, and my hon. friend will probably exercise his own judgment as to how much of this sum should be described as unnecessary extra expenditure.

Mr. Hanbury gave notice that on going into Committee of Supply he would call attention to these contracts, and move for correspondence.

DIARY FOR NEXT WEEK.

*Secretaries of societies are requested to send early information of approaching meetings.*

Monday, March 26.

Society of Arts, John Street, Adelphi, W.C., at 8 P.M.  
Professor W. Chandler Roberts-Austen, on "Alloys."

Tuesday, March 27.

Society of Arts, John Street, Adelphi, London, W.C., at 8 P.M. Mr. J. Stephen Jeans, on "The Panama Canal."

Wednesday, March 28.

Chemical Society, Burlington House, W., at 8 P.M. Anniversary meeting. President's address. Election of office-bearers.

Thursday, March 29.

Chemists' Assistants' Association, 103 Great Russell Street, W.C., at 9 P.M. Short papers by members.

# CORNER FOR STUDENTS.

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

## QUALITATIVE ANALYSIS.

A Mixture of two salts will be the subject of the next exercise in qualitative analysis. It is to be examined for all the ordinary metallic and acid radicles. Not only are its constituents to be detected—all other substances must be shown to be absent. In reporting students are to give a brief account of the analysis, with a summary of the results obtained, distinguishing as far as possible any accidental impurities detected from the chief constituents of the mixture.

Students' applications for portions of the mixture should be sent in before Saturday, March 31; the samples will be forwarded to applicants a few days later.

Students' reports will be received up to Saturday, April 21.

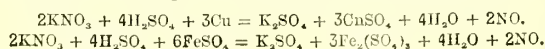
## REPORTS.

The mixture of salts distributed for analysis last month consisted of one part of mercuric chloride and two parts of potassium nitrate; its calculated composition was therefore:—

Hg	..	..	..	..	..	24.60
K	..	..	..	..	..	25.75
NO <sub>3</sub>	..	..	..	..	..	40.92
Cl	..	..	..	..	..	8.73
						100.00

There were 37 reports received, and of these there were only ten in which the constituents of the mixture were not correctly reported. Only two students failed to detect mercury, four failed to detect potassium, one student omitted chlorine and reported bromine present, and six failed to detect the nitric radicle. The most common error was, therefore, the failure to detect the nitric radicle, although it constituted nearly 41 per cent. of the mixture. This quite accords with previous experience, and it shows the necessity for paying special attention to the reactions by which nitrates are distinguished.

In the course of the ordinary preliminary examination of a solid, nitric acid may reveal its presence by two or three reactions. When the substance is heated in a tube closed at one end a nitrate, if present, will be decomposed; but the nature of the decomposition depends upon the temperature and upon the metallic radicle present. In the case of the nitrates of the alkali metals nearly pure oxygen is at first evolved, the nitrate becoming a nitrite, and the latter salt is subsequently decomposed, a mixture of oxygen and nitrogen passing off, and an oxide remaining. Ammonium nitrate yields nitrous oxide and water. The decomposition of the nitrates of the heavy metals by heat generally results in the production of an oxide and the evolution of an oxide of nitrogen and free oxygen. Plumbic nitrate, for example, yields deep red fumes of nitrogen peroxide and oxygen, while plumbic oxide remains. Heated on charcoal, all nitrates deflagrate; but chlorates behave in the same way, as well as some other salts of less frequent occurrence, such as iodates, hypophosphites, and permanganates. Treated with sulphuric acid, nitrates invariably yield free nitric acid. In the presence of metallic copper the nitric acid is reduced to nitric oxide; ferrous sulphate acts in a similar manner. These reactions may be represented by the following equations:—



The colourless nitric oxide on coming in contact with the oxygen of the air is resolved into N<sub>2</sub>O<sub>3</sub> and N<sub>2</sub>O, which appear in the form of red fumes. In the presence of an excess of a cold solution of ferrous sulphate the nitric oxide, instead of being disengaged, passes into solution in the form of (FeSO<sub>4</sub>)<sub>2</sub>NO, a deeply-coloured compound, which imparts a brown colour to the liquid. This compound is unstable and even a moderate increase of temperature decomposes it. Hence the necessity for preventing the heat produced by the hydration of the strong sulphuric acid from interfering with the reaction when it is employed as a test for nitric acid. The compound of ferrous sulphate with nitric oxide is so very deeply coloured that a minute quantity of it can be distinguished in solution. The test is, therefore, a very delicate one if carefully performed. The precautions to be observed can only be learned by actual experiment, and we strongly recommend students to make a practical study of the reactions until they clearly understand how to operate and what to observe.

## PRIZES.

The First Prize for the best analysis has been awarded to WILLIAM BURNS, care of Messrs. Davidson & Liddle, 20 Castle Place, Belfast.

The Second Prize has been awarded to A. H. OWEN, Stanpit, Christchurch, Hants.

## Marks Awarded for Analyses.

William Burns (1st prize) ..	100	H. G. .. ..	75
A. H. Owen (2nd prize) ..	97	W. H. Grime .. ..	75
Perseverer .. ..	95	L. N. W. .. ..	73
W. Hurd .. ..	95	S. W. H. .. ..	70
Carbo Ligni .. ..	93	John Neil .. ..	70
F. N. .. ..	90	A. Reith, jun. .. ..	70
E. Turton .. ..	90	Mercury .. ..	65
Seconds .. ..	90	E. Swallow .. ..	60
W. A. G. .. ..	90	G. P. Jesson .. ..	60
A. Shaw .. ..	90	Frigidus .. ..	50
Jeems .. ..	87	A. Lifton .. ..	45
Tyro .. ..	87	Nnquam Desperandum ..	40
Priquet .. ..	85	Hirudo .. ..	40
T. Darlington .. ..	85	A. W. .. ..	40
Halez .. ..	83	J. Wilson .. ..	35
Ernest A. Hay .. ..	82	Carbon .. ..	30
A. Brunger .. ..	80	W. R. G. .. ..	25
H. C. C. .. ..	80	Federal .. ..	5
H. Bowden .. ..	78		

## TO CORRESPONDENTS.

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

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

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

\* \* \* All communications should include the names and addresses of the writers.

W. BURNS.—Your analysis was evidently conducted with great care, and you furnished a very good report.

E. TURTON.—The conclusion that potassium nitrate must be present because the salt deflagrated when heated on charcoal was more than you were warranted in drawing from the reaction. Several other salts behave in the same way.

TYRO.—More information ought to be obtained from the preliminary examination; you ought at least to have ascertained that the volatile metal was mercury.

S. W. H.—When you added ferrous sulphate to the ammoniacal solution some of the iron was precipitated, probably as a mixture of ferric and ferrous hydrates, hence the coloration you observed. The test for nitric acid requires the presence of undecomposed ferrous sulphate in solution as it is this solution which acquires the brown colour by dissolving the liberated nitric oxide.

MERCURY.—You omitted to give a summary of your results, and some cases it is difficult to make out what your conclusion was.

G. P. JESSON.—The solution tested for a chloride should have been acidulated with nitric, not sulphuric, acid. Magnesium should have been

for in filtrate from the group reagent ammonium carbonate, not in the original solution. You omitted the preliminary examination in the dry way; the examination generally gives information which is of great value in the subsequent wet analysis.

**FERRIC.**—You do not give sufficient detail to admit of your test for nitrous being repeated. Solutions of nitrites, when decomposed with dilute hydrochloric acid, or even with acetic acid, give an instantaneous liberation of iodine in iodides. In this analysis it must be remembered that the addition of an excess of strong acid caused a liberation of both hydrochloric and nitrous acids, or, in other words, nitrohydrochloric acid, the free chlorine of which would liberate iodine.

**A. L. FOX.**—The test for nitrates with ferrous sulphate and sulphuric acid requires some nice manipulation, and unless you have learned by trial what the conditions to be observed you are not likely to succeed. You will find an instructive exercise to try what is the smallest quantity of a nitrate which can be detected with certainty by this test.

**NITRUM DESPERANDUM.**—The several tests by which you demonstrated the presence of bromine were no doubt conclusive, and the only thing required to make them quite satisfactory was the actual presence of that element. The smell you perceived was due to chlorine, and the colour to nitrous fumes. The production of a colourless solution in the chlorochromic anhydride test must have been imaginary. The irregular behaviour of the silver nitrate precipitate was no doubt due to the presence of mercury.

**A. W.** When the solution in which ammonium carbonate had failed to give a precipitate was evaporated and the residue ignited a considerable residue remained, and as all the other metals had been removed this could only consist of salts of the alkali metals. The precipitation of potassium requires some care, and it is only by trial that you can learn the precautions to be observed.

**J. WOOD.**—You tested for some metals and some acids, but you cannot claim to have made a complete qualitative analysis.

**CARBYL.**—The presence of a volatile salt such as mercuric chloride ought to be detected with certainty in the preliminary examination. It is evident that you did not employ an excess of sulphuretted hydrogen. The production of a light-coloured precipitate, which darkens and finally becomes black as the sulphuretted hydrogen is added in excess, is characteristic of mercury.

**W. G.**—The presence of mercury interfered with the silver-nitrate tests for chlorides. When you added ammonia to dissolve the precipitate mercurous ammonium chloride was thrown down. To avoid such complications a special solution should be prepared for the examination for the acids; you will find the method to be employed described in your text-book.

**HEP.**—The precipitate you attributed to bismuth was due to mercury, and the mirror was caused by the same metal, as you might have ascertained by examining it with a lens.

## Metropolitan Reports.

**GETTING THEM OUT.**—In the window of an open surgery in the S.W. district may be seen a large leech aquarium containing a fine assortment of teeth in various stages of decay. Affixed to it is a written label bearing these ominous words, "Teeth got out at 1s. each." Possibly some sceptic has suggested to the proprietor that his peck of teeth bear the appearance of age, and has further inquired what a job-lot like that would be worth; for one morning this week, to convince the most incredulous, two pairs of forceps, each grimly grasping a freshly-extracted tooth, garnished the top of the aquarium, while nine other examples, more or less recent, scattered around bear witness to the doctor's skill in the "getting out" line.

**THE LONDON COMMERCIAL TRAVELLERS' BENEVOLENT SOCIETY.**—The first annual general meeting of this society was held on Saturday in the Cannon Street Hotel, D. R. Harvest, Esq., in the chair. There was a large attendance. The report showed that the society is in a prosperous condition, and it was carried unanimously. The chairman said that the board of management had been actuated by one motive and desire, namely, to do the best they could to promote the interests of the society. Twenty-seven members of the board who retired by rotation were then re-elected. The following nine new members were proposed and elected on the board to replace the nine retiring members:—F. Beavis (Ridley, Whitley & Co.), G. Capstick (R. Owtram & Co.), R. W. Duckett Clarke (Fownes Brothers), W. Gubbins (Game, Harrison & Larner), G. Knight, J. S. Richardson (Faudel, Phillips & Co.), S. Sanderson (H. Stevenson & Co.), C. J. Strother (Meggeson & Co.), E. Thomas (Fourdrinier, Hunt & Co.). Mr. J. E. Alger, the late chairman of the society, in replying to a vote of thanks to the board for their services in the past year, said it seemed perfectly marvellous that an institution which had sprung up early in 1887 should at the present time be wielding such an influence for good. The members of the society represented some of the largest firms in the City, and their influence would be very powerful. (Cheers.) He pressed upon each member of the society the advisability of individual exertion during the coming year, and he felt sure that at the next meeting their record would be even better than it had been at that one. (Cheers.) A vote of thanks was given to the chairman, and the proceedings then terminated.

## NEW COMPANIES.

**BONE COMPANY (LIMITED).**—Capital, 35,000*l.*, in 1*l.* shares. Object, to acquire interests arising from the manufacture and sale of certain productions, all protected by trademark patent, known as the Bovine horse and cattle spine bone Bovine brick of health, the Bovine specific, and the Bovine saccharum lactis.

**CHARLES L. BAKER & CO. (LIMITED).**—Capital, 25,000*l.*, in 5*l.* shares. Object, to acquire and carry on the business of Charles L. Baker & Co., of Worsley Street, Chester Road, Manchester, telegraphic, electric, surgical, and scientific apparatus makers. Mr. C. L. Baker is appointed managing director at a salary of 500*l.* per annum.

**SEAHAM CHEMICAL WORKS COMPANY (LIMITED).**—Capital, 20,000*l.*, in 100*l.* shares. Object, to acquire the lands, with erections, plant, &c., formerly used by Messrs. Watson, Kipping & Co. as chemical works at Seaham Harbour, Durham, and to carry on the business of chemical manufacturers. The first subscribers are:—John Spencer, steel manufacturer, Whorlton Hill, Newcastle-on-Tyne; Michael Spencer, steel manufacturer, Newbottle Hall, Newcastle-on-Tyne; Thomas Spencer, The Grove, Ryton-on-Tyne; John Spencer, merchant, Newcastle-on-Tyne; Thomas Lomas, chemical manufacturer, Seaham Harbour; Henry W. E. Spencer, bookbinder, Seaham Harbour; J. Fredrick Spencer, merchant's clerk, Newcastle-on-Tyne; the four first named of the being appointed directors, and Thomas Lomas the managing director.

## Provincial Reports.

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

### BIRMINGHAM.

**MIDLAND COUNTIES CHEMISTS' ASSOCIATION.**—The secretary informs us that the musical and social evening which was to have been held on March 29 will not take place until after the Easter week.

**THE INLAND REVENUE AUTHORITIES** are doing a roaring trade with our chemists. It is said that a visitor to Waterloo Street (their local offices) saw table after table filled with 1*d.* boxes of pills, lozenges, powders, and ointments. Many have settled by payment of sums varying from 1*l.* to 10*l.* The apostrophe and "s" seem to be the *bête noir*.

**THE MINERAL WATER TRADE.**—On March 16 the first annual dinner of the Birmingham and District Mineral Water Trade Protection Association was held at the Grand Hotel, Mr. H. Sanderson presiding. In replying to the toast of "Success to the Association" the President said there was every reason to believe that the Association would so develop that every respectable member of the trade would be anxious to enrol himself as a member. (Hear, hear.) The only means of putting a stop to the dishonest practice of using other manufacturers' bottles was by the strong arm of the law. (Applause.)

**CHEMISTRY SECTION AT MASON COLLEGE**—The report of the chairman of the Academic Board of Mason College has been issued upon the several departments in the faculties of arts and science for the year ending February 23 last. Alluding to chemistry and metallurgy, he says satisfactory progress has been made in the number of students attending the classes, and a high standard of work has been maintained. At present the general course is attended by 60 students, the largest number since the opening of the college, and the laboratory is practically full. Two students of the department obtained the degree of B.Sc. (London) in October last, one, Mr. T. J. Baker, with first-class honours, and the other, Mr. A. L. Stern, with second class honours in chemistry. Mr. Baker has since been appointed honorary demonstrator. Attention is called to the inadequacy of the grant for current expenses, for chemicals, &c., and the need for new apparatus and the want of a laboratory servant. The report goes on to state that the work of the physics department has progressed steadily and satisfactorily during the year. Special attention has been paid to the thorough organisation of the practical classes in connection with the junior and middle classes, and it is believed that they have been rendered more efficient. The general report of the College states that Professor Tilden has been elected an examiner in chemistry to the London University.

**FALSE IMPRISONMENT AND ALLEGED MALICIOUS PROSECUTION**.—At the Birmingham Assizes on Wednesday, Alfred Edward Davis, of 74 Pershore Road, and 91 Balsall Heath Road, Birmingham, colour importer, and a partner in the firm of Pronk, Davis & Co, brought an action against Leopold Barouche, colour importer, of Colmore Row, Birmingham, to recover damages for false imprisonment and malicious prosecution. Mr. Jelf, Q.C., for the plaintiff, stated that Mr. Davis had been approached by a servant of Mr. Barouche, named Price, who desired a situation as district agent, and had, after some negotiation, offered to appoint him. Price, however, then declined the situation. In the course of the negotiations the plaintiff had asked for some samples of the defendant's phosphine, and afterwards, in the Birmingham Reform Club, Price gave him some samples with the cognisance of the defendant. As he came out of the club the defendant was waiting outside with a detective, and the plaintiff was arrested at midday in a crowded street. The charge of felony broke down when it came before the magistrate, Mr. Barouche having admitted that it was a constant practice to give away such samples, and that the sample in question was not stolen. [Here the Judge called attention to the fact that there was no amount mentioned in the statement of claim, and on Mr. Jelf handing up his own statement it was found that it also had only a blank, but in the margin some one had written, "I should think that would be large enough," this referring to a pencilled figure. This incident caused considerable amusement. The record was ultimately amended by leave.] Evidence was then taken, and the plaintiff's case substantiated so far as the wrongful imprisonment was concerned. It also appeared, however, that the plaintiff asked Price, at an interview which he had with him, something about the names of the defendant's customers. He wanted to know what Barouche sent to "Aston, of Spring Hill," and what price was charged to that dealer. His Lordship, in summing up, reviewed the facts of the case, pointing out the nature of the interview, and especially that the arrest was a wrongful arrest. The jury then retired, and, upon returning into court, gave a verdict for 20*l.*, in addition to 10*l.* which had been paid into court. His Lordship entered judgment for that amount, with costs.

#### DUBLIN.

**A DISASTROUS FIRE** occurred here on Wednesday morning, which resulted in the establishment of Mr. C. Mannin, pharmaceutical chemist, 2 Great Brunswick Street, being destroyed. The fire raged fiercely for two hours and a half, at the end of which time the premises were completely gutted, in spite of the efforts of the fire brigade, which arrived on the scene at nine o'clock. It appears that one of the assistants had spilled some oil on his apron. This became ignited owing to contact with a candle which he held in his hand, and as he tore off his apron and flung it from him it set fire

to the woodwork of the counter, whence the flame spread all over the shop. The stock destroyed was valued at 4,000*l.*, and was partly covered by insurance.

#### LEEDS.

**THE EXTRAORDINARY CHARGE OF BABY-SLAYING**.—At the Town Hall on March 16, Owen Stafford, 34, formerly in business as a chemist at Hyde, near Manchester, and now a chemist's assistant at Morley, was charged on remand with having feloniously taken a child, aged three weeks, from the custody of its mother, Margaret Elizabeth Woodhouse, a domestic servant. The details of the allegation have already been reported in this journal. The chief constable stated that nothing had yet been heard of the infant, an application for a further remand. The prisoner was accordingly remanded.

**WATERED LARD**.—At the Police Court on Tuesday, before Mr. Bruce, the stipendiary magistrate, William Dillon, a grocer and provision dealer, who has three shops, was charged with selling two samples of lard, one of which contained 9 per cent. and the other 20 per cent. of added water. In the latter case, however, it was shown that a label was lying on the dish upon which the lard was standing stating that the lard was "watered." A fine of 5*l.* was inflicted in the first case, and 1*l.* in the other, both including costs.

#### LIVERPOOL.

**SOCIABLE DRUGGISTS**.—A very pleasant evening was spent by the staff of Evans, Sons & Co. last Saturday in the rooms of the Young Men's Christian Association on the occasion of their annual gathering. At 6 P.M. a company of about three hundred partook of an excellent tea provided by the firm. The large reading-room of the Association was set apart for this purpose, and was tastefully decorated with plants and flowers. After tea a concert was held in the large lecture hall, Mr. John J. Evans occupying the chair. Mrs. John J. Evans, Mrs. William P. Evans, Mr. Shackley, Mr. Brinson, and others assisted in the programme.

#### MANCHESTER.

**SUICIDE OF A CHEMIST'S ASSISTANT**.—The deputy city coroner, Mr. S. Smeelt, held an inquest on March 16 on the body of John Munday (23), a chemist's assistant. The deceased, who for some time past had been suffering from religious mania, stayed away from business on the evening Tuesday. In the afternoon he went out for a walk, and about two hours later he was found in a semi-conscious state leaning against a boarding half a mile from home. He was taken to his house and put to bed, where he remained until about three o'clock the following day. He then got out of bed, and having procured a knife, inflicted such a wound on his throat that he died shortly after being admitted to the infirmary. The jury returned a verdict to the effect that he committed suicide while suffering from temporary insanity.

#### NEWTON HEATH.

**A JURY AND THE SALE OF POISONS**.—Mr. Frederick Price, the county coroner, held an inquest on March 15 at Newton, on the body of the wife, 30, of a carter, living at Newton Heath. The deceased had been ailing for some time, and sent her daughter on the Tuesday afternoon previous for a pennyworth of oxalic acid, and told the girl to tell the chemist, if he asked her what it was for, that it was to take out iron-mould. The acid was obtained, and after she got the woman swallowed it, dying before medical assistance could be procured. The jury returned a verdict that the deceased committed suicide whilst temporarily insane, and added the following rider:—"The jury regret that the facilities for the public obtaining deadly poisons are so great, and think that additional legislative restrictions should be placed on their sale."

#### SHEFFIELD.

**MR. ALFRED WOOD**, chemist, South Street, Moor, is removing to Ecclesall Road.

**A MEDICAL DISPUTE.**—At the County Court last week, Dr. James Mason, Infirmary Road, brought an action against Mr. William Cullen, Leeds Road, surgeon's assistant, for breach of an agreement dated April 2, 1884, made between them, and also claimed a perpetual injunction restraining the defendant in committing any further breach of the agreement by practising on his own account, or as assistant to any physician, surgeon, or apothecary, within five miles of Sheffield or Attercliffe. Mr. A. M. Wilson, who appeared for the plaintiff, read the agreement, in which Dr. Mason agreed to employ Cullen at a salary of 60*l.* per year, with use of house, &c., and on his part he agreed that he would not on leaving Cullen's employ act for any other physician, surgeon, or apothecary within five miles of Sheffield or Attercliffe. On December 1, 1887, that agreement was determined by Mr. Cullen, and since that period he (Cullen) had joined a gentleman not named to be in the plaintiff's employ, and they carry on the practice of medicine and surgery at Attercliffe. Mr. Kirkpatrick, surgeon, was called, and admitted that Cullen had introduced him to certain patients, but he denied that he had employed Cullen as assistant, or that he had acted for him. His Honour, Judge Ellison, said there was nothing to prevent Mr. Cullen introducing anyone. It must be proved that he acted as practitioner. After other evidence had been given, the case was adjourned.

**SOUTH SHELDON.**

**THE MARKS CASE.**—At the Police Court, on Wednesday, Robert Spoor, mineral water manufacturer, was summoned for unlawfully applying the trade-mark of Edward Handlip to the bottles of lemonade, and further for applying a false description to three bottles of lemonade. Mr. McAnulty, for the prosecution, said the defendant was charged under the Merchandise Marks Act with having sold goods to which he had applied a false trade-mark, and also with selling goods to which a false trade description was applied. The bottles bore the Handlip's registered trade-mark—a hand, with the word "slip" across the palm in capital letters. Mr. Mabane, for the defence, submitted that no injury had been done to Mr. Handlip; the defendant had received the bottles instead of his own, and had used them without any idea of fraud. The magistrates having consulted in private, the Mayor intimated that the defendant would be fined 20*s.* and costs in the first case, and that the second summons would be dismissed.

**SCOTLAND.**

**ABERDEEN.**

The business of Davidson & Sim is again in the market.

M. W. G. GORDON, 111 George Street, has taken over the business of Mr. Murison in Skene Street.

M. FINDLATER, who has sold his business in Aberchirder, to M. J. J. Petrie, Aboyne, is transferring his energies to Yorkshire.

**FIFE.**—This hitherto uncultivated field is now to be tilled by one whose identity is overshadowed by the sign "Deal Laboratory."

BURKIE has been created a hurch, and Messrs. James Bremer and John Webster, chemists, are amongst its first commissioners.

**POST OFFICE APPOINTMENT.**—Mr. Spence, chemist, Monmouth, has been appointed postmaster for the district. The authorities seem to like chemists, four of the district offices now being held by them.

**MEDICAL OFFICER OF HEALTH.**—Dr. Matthew Hay, Professor of Medical Logic and Jurisprudence in the University, has been elected to this post. This election is directly antagonistic to a resolution arrived at by a committee of the Town Council.

**ABERDEEN AND NORTH OF SCOTLAND SOCIETY OF CHEMISTS AND DRUGGISTS.**—The annual meeting was held on March 14. About fifteen members were present. No business of any great importance was transacted. A rather desultory conversation on prices was indulged in to little or no purpose. The following were elected office bearers for 1888:—President, Mr. W. Reid; vice-president, Mr. D. A.

Mortimer; treasurer, Mr. Jas. Paterson; secretary, Mr. A. Strachan; curator, Dr. Presslie; librarians, Messrs. Reid and Coutts; auditor, Mr. W. Gordon.

**BURNTISLAND.**

MR. GEORGE PRINGLE, who has been for some years principal assistant to Mr. Storrar, Kirkcaldy, is, we hear, about to commence business here. The town hitherto has been in the sole possession, pharmaceutically speaking, of Mr. Andrew Gilmour.

**EDINBURGH.**

It is currently reported that one of the "qualified" assistants so much advertised in connection with a cutting establishment not a hundred miles from Edinburgh has been deriving his "qualification" from a convenient change of surname to that of a chemist in business in the North of England with which his own corresponded. His hubbub is reported to have been burst by a travelling book canvasser.

THE UNIVERSITY winter session is just closing, and at the same time the class examination results are being made known. In Dr. Macadam's chemistry class at the College of Surgeons the first prize is taken, with 99.3 per cent. of marks, by Mr. James T. Grant, who took the prize scholarship of the local Chemists', Assistants', and Apprentices' Association this session. Mr. Grant gets the silver medal, and another pharmaceutical student, Mr. Alex. Furness, a bronze medal, being bracketed with other two for second place.

THE INCOMES OF THE MEDICAL PROFESSORS of the University are notoriously large. Not only is the medical school the most popular and largest attended one in the kingdom, but the chairs are richly endowed. The total income of the chairs in the medical faculty is 26,628*l.*, the expenses in connection therewith, 5,180*l.*, so that a sum of 21,230*l.* remains for division amongst twelve professors. Five of them who do not practise privately as physicians receive each an income of about 2,200*l.*, and seven who do practise get about 1,460*l.* each. Some people think that these salaries are too high, and would like a redistribution.

THE ARBORETUM is now being put into a condition to be of some interest and service to the student of botany. On the northern side a nice collection of pines is being formed. Among the specimens already planted are examples of the silver pine, Scotch, Austrian, and Corsican pines; African cedar, from Algeria; cedar of Lebanon, from Syria; Indian cedar, from the Himalayas; spruces, from Norway; the black spruce, from E. N. America; Eastern spruce, from Asia Minor; Indian spruce, from the Himalayas. From Japan there are *Abies brachyphylla* and *Abies firma*. These look exactly like the trees with which Japanese landscape pictures have familiarised us. China is represented by a specimen of *Pinus Bungeana*. A portion of the west side and most of the southern boundary has been laid out in plots containing plants arranged according to their orders. For example, plots are devoted to grasses, *Liliaceae*, *Salicineae*, and so on. In the collection of *Thymelacaceae*, *Daphne mezereum* is at present in flower; it is the white-flowered variety. Among the *Labiatae* there are specimens of *Lavandula spica* and *Rosmarinus officinalis*. The *Scrophularinaceae* are represented solely by veronicas. Among the *Loganiaceae*, a specimen of *Gelsemium sempervirens* in its appearance sadly belies its specific name. Examples of *Eucalyptus Globulus* and several species of *Eucalyptus* are among the *Myrtaceae*. The *Hamamelidaceae* include specimens of *Hamamelis virginica* and *Liquidambar styraciflua*; the latter, a native of Central America, yields the balsamic resin known as sweet gum. Several species of *Euonymus* may be seen among the *Celastrineae*. The *Rhamnaceae* include *Rhamnus Purshiana* and *Rhamnus frangula*, and in this plot are two plants, one labelled *Rhamnus alpina* and the other *R. alpinus*. It is left to the student to determine which termination is correct. From being a mere wilderness with a few trees and a great many crow's-nests, the Arboretum is now supplied with the elements of instruction and pleasure. With the exercise of a little more judgment in the choice of specimen plants, its usefulness might be still more increased. To the pharmaceutical student it offers the great advantage of being, unlike the Botanical Gardens, open on Sundays. From the centre of the city it is only about twenty minutes' easy walk. It deserves to be better known than we believe it is.

## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

NEW PHARMACEUTICAL PAPER.—*Journal de Pharmacie de Lorraine* is the name of a new periodical to be published monthly at Nancy. It is edited under the auspices of the Lorraine Pharmaceutical Society, and with the collaboration of the professors of the Nancy College of Pharmacy.

THE ACADEMY OF MEDICINE has lost another member in the person of Dr. Hippolyte Blot, who held a seat in the section of accouchements. Several berths are thus now vacant, among them that of M. Méhu, in the section of pharmacy, a successor for whom is to be elected at an early date. As usual the candidates are numerous.

POISONING WITH SAL-AMMONIAC.—A whole family near Breuil, in the Nice district, has been poisoned with sal-ammoniac, added through mistake to the evening meal instead of common salt. All the family, consisting of father, mother, two daughters, and a son-in-law, were taken sick after the supper. Although medical aid was summoned, the mother, who made the mistake, died during the night, and the other members of the family were dangerously sick for several days.

THE INTERNE PHARMACISTS of the Paris hospitals and asylums have been notified that they will be expected to take part in a competition for prizes, to be held on May 7, in the Avenue Victoria Building. One gold and one silver medal will be awarded, besides some book prizes. All the interne pharmacists in the employ of the Seine Department authorities must enter the lists, as the jury will not only confer the prizes, but also decide upon the merits of each young man, and judge whether the progress he has made in his studies entitles him to be continued in his service. Thus there will be prizes for some, and possible dismissal for others.

NITRIC ACID AND RAILWAYS.—A physician in a country town, wishing to have some mono-hydrated nitric acid for a patient, asked a pharmacist of the place to procure for him some ten grammes of the chemical. The pharmacist ordered some of his wholesaler in Paris, but soon received, instead of the ten grammes of acid, a note informing him that, "according to the police regulations for railways, mono-hydrated nitric acid can only be shipped by special iron-clad waggon (*wagon spécial blindé*) supplied by sender. It is therefore impossible to fill your order." The incident seems ludicrous enough at first sight, but as it will take but little mono-hydrated acid, under favourable circumstances, to set a railway train on fire, the exclusion is perfectly proper. Besides, the chemical can easily be prepared with very simple apparatus found in most pharmacies, and every pharmacist knows well enough how to do it, if he will but take the trouble.

AMMONIA IN DISTILLED WATERS.—Professor Schlagdenhauffen, of the Nancy College of Pharmacy, while examining some fenugreek-seed water of his own make, for its volatile principles, was surprised to observe the characteristic reaction of ammonia and its compounds when adding to the distilled product an alkaline solution of iodohydrargyrate of potassium. On repeating the operation with great care, not only was the same effect reproduced, but it was equally evident with the water distilled over various other substances. Moreover, upon evaporating the distillates, acidulated with muriatic acid, crystallised ammonium chloride could easily be separated. Fifteen different plants were thus tried, such as pyrethrum tops, mustard seed, angelica seeds, peas, beans, orris root, star-anise seeds, &c., and afforded a proportion of chloride varying between the minimum and maximum of 0.03 to 1.10 per thousand. Without attaching too much importance to the facts, in the present stage of his experiments, the professor merely suggests that the presence of ammonia in distilled waters must be the cause, or one of the causes, of their alteration on keeping; that it is always to be found in such waters, and they would keep better if this natural food of micro-organisms could be left out.

GRAINS OF PARADISE IN PEPPER.—A new adulteration of pepper has just been noticed by M. Fabri, a student at the Nancy College of Pharmacy. Grains of paradise is the substance employed. As the prices of the two substances are

not very different, there seems to be no reason for a fraud of the sort, were it not that the grains being about twice as expensive as pepper, every pound of these added will enable the sophisticator to introduce one pound of some inert substance. The most usual mixture is said to be made with equal weights of pepper, grains of paradise, and starch, which gives powdered pepper of very fair appearance. The fraud is easily detected, because true pepper contains no tannin, while the adulterant does in notable proportion. The test may be applied by macerating the suspected powder with a mixture of two parts of alcohol and one of ether, and adding to the filtered liquor one drop of ferric chloride solution. Pure pepper affords no colouration, while a deep greenish brown will indicate the presence of grains of paradise. Other common adulterants of pepper, such as olive seed, strike a slight green colour with the ferric solution; but it is so different from the other that no possible doubt can be entertained.

## GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

THE LATE EMPEROR.—With the "going home" of our great Emperor, the followers of science mourn a friend and patron. He continually took the greatest interest in the advancement of science. The last meeting of the German Chemical Society was therefore a memorable one, since it is during the twenty years of Emperor William's reign that German science has grown in importance. The late Emperor always realised the value of new discoveries in the field of natural philosophy, and generally invited celebrated scientists to explain to him anything novel or recently developed in science. The genial affability of the "father of the pole" is shown by the following incident:—His Majesty set one day for the well-known Professor v. Hoffmann, now resident of the Chemical Society, and asked him to explain the *rationale* of the methods used for the condensation of atmospheric gases to the liquid state. Hoffmann illustrated his explanation by practical demonstration. When the point of condensation was reached, and the first drops of liquid appeared, the Emperor wittily observed, "Oh, see! no the real Hoffmann Drops are beginning to come!"

A GERMAN COLONIAL EXHIBITION.—It is possible that next year Dr. Holub will institute a grand South African exhibition in Vienna on lines similar to those which regulate the Colonial and Indian Exhibition at South Kensington. Dr. Holub is a staunch Prussian, but, like all Germans, is quite in sympathy with everything associated with German-speaking peoples. The exhibition, if held, will be of much interest to British merchants, as it is intended to be representative of the principal industries and the various export trades, and will also certainly include some products of British commerce and enterprise.

UNEMPLOYED SCIENTISTS.—Germany has always been regarded as "the happy hunting-ground" of the scientist; but this state of things seems likely to be reversed. The number of students who have passed the examination in various arts and sciences, and who, being fully qualified, are unable to obtain any position, is just now a clamant evil. On the one hand, the Government cannot possibly make offers of them all, and so draft them into the military; and on the other, commercial positions are already the objects of the keenest competition. During this winter more than 600 medical students have been engaged in qualifying for the profession of medicine, and it is a fact that the number of licences issued to medical men yearly has more than doubled during the past six years. University students are awaiting to a very similar dilemma, and besides these perennially flowing sources of educated youth, we must also take account numberless "polytechnics" and private college seminaries. That these latter are often extensively patronised may be seen from the statistics of the attendance at the "Chemical Laboratory of Professor Fresenius in Wiesbaden," which has always attracted students from every part of the globe. This year his disciples number 75, of whom 45 are Germans, 7 Americans, 6 Austro-Hungarians, 5 Swedes, 4 English, 4 Russians, and some from France, Belgium, Italy,



East dia, &c. Special attention is now directed in this laboratory to bacteriology and other large subdivisions of chemistry, under the directorship of the well-known Professor Leuppe.

REMEDIES.—In pharmacy the influx of new drugs and preparations is becoming quite bewildering, and it is impossible to bear in mind the ever-increasing list, which, if it goes on augmenting at the present rate, will ere long baffle description. The enterprising chemist is obliged to stock these things, although they are often only once called for, and then left to spoil upon the shelves, and considerable loss is entailed. Nevertheless, the influence of competition keeps them constantly on the alert to be first in procuring and introducing new remedies. This is unfortunate, though the public always expect to get a prescription made up direct, and hence such activity is necessary, for a doctor will can prescribe a remedy which he has seen for the first time half an hour before in some scientific paper. Such medicines as mullin, creolin, anthrarobin, lepanin, guaiacol, trefu, &c., are among these recent fashionable compounds.

SALOL AS AN ANTISEPTIC.—Just as antipyrin after its original applications was found to have numerous others equally effective, so it is now with salol, which seems likely therefore to presently command a more extensive patronage. One of these seems to be really important. The antiseptic properties of the compound have always been recognised, but salol had never been applied externally. Now, however, continuing the parallel with antipyrin—the most important property of which was discovered in a country other than that in which it was first used—salol has been proved to be a valuable antiseptic in France, Italy, and Switzerland. It is especially recommended as a substitute for iodoform, in all cases in which the latter has been previously used, and considering its freedom from objectionable odour, it is not astonishing that its application in this direction should find favour. Moreover, it is not toxic, which is more or less the case with iodoform. Another advantage is that it is about 20 per cent. cheaper than iodoform.

THE PTOMAINES.

A paper read before the Chemists' Assistants' Association, March 22, by A. P. LUFF, M.B., B.Sc., F.I.C., F.C.S. Assistant-Physician to the North-West London Hospital; Lecturer on Medical Jurisprudence and Toxicology, and Visiting Lecturer of the College, St. Mary's Hospital.

The author stated at the outset that he had selected the subject "The Ptomaines" for a discourse because it occurred to him that an account of these bodies, which have been so comparatively recently discovered, and which, even at the present time, are so little known, would be of interest, and it struck him also that he might perhaps be able to give his hearers an insight into the vast benefit that may possibly result to mankind by a closer acquaintance with, and a more accurate knowledge of, the properties of these peculiar compounds, and that by a few speculations of his own he might point out the rôle that they may be destined to play in the drama of life in the future.

I propose, he continued, to discuss the subject under the following heads:—

- (1) What are "ptomaines"?
- (2) From what substances, and under what conditions, are ptomaines formed?
- (3) What is the chemical constitution of the ptomaines, and what other bodies are they related to?
- (4) What are the properties of the ptomaines?
- (5) What possible importance may a knowledge of the ptomaines assume in the future?

Ptomaines are alkaloids produced by the decomposition of animal substances. By the term "alkaloid," as generally employed, we understand "an organic base derived from a vegetable source;" by the term "ptomaine" we are to understand "an organic base derived from an animal source." The word "ptomaine," which is derived from *ptoma*, a corpse or dead body, and *maia*, belonging to, was at first restricted to alkaloids produced by cadaveric decomposition, but it is now also employed to designate alkaloids of animal origin formed during life, as a result of chemical changes induced by some

agency or other acting within the organism. The term "leucomaine" has recently been introduced to particularise the animal alkaloids formed during life from those produced by decomposition of dead animal matter. I shall not, however, in this paper use that term much, as the name "ptomaine" is more familiar, and, moreover, it is probable that in the near future the terms "ptomaines" and "leucomaines" will be dropped, and that these bases of animal origin will be classed in one category as "animal alkaloids."

II. At the beginning of this century the power of plants to form alkaloids had been conceded, but until 1872 the power of manufacturing alkaloids was believed to be restricted to plants, and not to be shared by animal organisms. The first faint foreshadowing of the production of alkaloids by animal substances occurred in 1820, when Kerner pointed out the resemblance between the symptoms of poisoning by sauses and by atropine. In 1822 Gaspard and Stick extracted a venomous principle from corpses. In 1856 Panum detected a very active poison, which was neither albumenoid nor alkaloidal, in putrid matter. In 1866 Dupré and Bence Jones found an alkaloidal substance, resembling quinine in some of its properties, in the liver. In 1868 Bergmann and Schmiedeberg obtained from putrid beer a nitrogenous crystalline substance, which they called sepsine, and which was subsequently thought to be discovered in septicæmic blood. In 1870 Gautier, in France, commenced his researches on putrefying albuminous substances. A little later Selmi, in Italy, examining the dead body of a person supposed to have been poisoned, extracted an alkaloid which he was unable to identify with any known body, and was led to suspect that it had been produced after death. In 1877 Selmi announced that by subjecting pure albumen to putrefaction he had been enabled to produce and separate two new alkaloids.

Since then Gautier has made a series of elaborate and prolific researches, as the result of which several animal alkaloids have been discovered. To Gautier is due the honour and the credit of being the first one to demolish the artificial barrier that had been erroneously interposed between the physiological phenomena of the animal and vegetable kingdoms, and to clearly establish the doctrine that plants possess no monopoly, no exclusive power to manufacture alkaloids. Creatinine, xanthine, hypoxanthine, guanine, carnine, and betaine, all genuine alkaloids, were found in the tissues of animals, or in their excrementitious products.

Creatinine, discovered in urine by Liebig and Pettenkofer, was the first body of animal origin acknowledged to be an alkaloid. Later Liebreich detected the already known vegetable alkaloid, betaine, in normal urine. In 1880 Pouchet detected carnine in human urine, and this was confirmed in 1881 by Gautier, who showed that it possessed the general properties of a ptomaine. In 1882 Bouchard demonstrated that not only were alkaloids present in appreciable quantities in normal urines, but that they augmented notably in the course of certain maladies—in typhoid fever, for instance; and later Lepine and Aubert concluded that these alkaloids in the urine increase in quantity until the crisis of the disease is reached, after which they diminish (no alkaloid was isolated by these workers in connection with any disease in sufficient quantity, or sufficiently pure, to admit of its ultimate composition being determined). Since then Gautier, as the result of his investigations, has affirmed that the incessant production of alkaloids at the expense of albumenoid materials is a function of all the animal tissues, and is an essential concomitant of the vital phenomena of all living things, animal and vegetable.

It is to albumen, then (a body alike present in animals and plants), that we must look as the common ancestor of alkaloids, whether animal or vegetable. Now what is it that brings about those changes in the albumen molecule, that revolution amongst its constituent atoms, as the result of which follows the rearrangement of those atoms into other bodies, among which are the ptomaines? The force necessary to effect these changes in the albumen molecule is a vital force, a force intimately associated with living matter, whether animal or vegetable; for even in the case of the corpse alkaloids, the ptomaines produced by decomposition of animal matter after death, these bodies are formed as the result of changes induced by the vital activity of micro-organisms which set up cadaveric putrefaction. The changes induced in the albumen are such that the complex albumen molecule is split up into several less complex molecules,

among which are the animal alkaloids. Albumen is almost insoluble in water, and quite insoluble in alcohol. Now during its putrefactive destruction it passes through the three following stages:—

1st Stage.—It yields products which are soluble in water, but insoluble in alcohol.

2nd Stage.—It yields products which are soluble in alcohol, but are non-crystallisable.

3rd Stage.—It yields crystallisable products, among which are ptomaines.

The following is a list of the principal ptomaines that have been extracted from putrefying animal matters and submitted to ultimate analysis:—

#### I. Non-oxygenous ptomaines

Belong to pyridine ( $C_4H_5N$ ) series.

*Collidine*,  $C_8H_{11}N$ , from putrefying horseflesh and mackerel.

*Parvoline*,  $C_8H_{13}N$ , from putrefying horseflesh and mackerel.

*Unamed base*,  $C_{10}H_{15}N$ , from putrefying fibrin of bullock's blood.

*Hydrocollidine*,  $C_8H_{13}N$ , from putrefying horseflesh and mackerel.

*Putrescine*,  $C_4H_{12}N_2$ , from human corpses.

*Neuridine*,  $C_2H_{14}N_2$ , from human corpses, and from putrefying fish and cheese.

*Cadaverine*,  $C_2H_{10}N_2$ , from human corpses.

#### II. Oxygenous ptomaines:—

*Neurine*,  $C_8H_{13}NO$ , from cadaveric putrefaction.

*Muscarine*,  $C_8H_{13}NO_2$ , from putrid fish.

*Choline*,  $C_5H_{13}NO_2$ , from cadaveric putrefaction.

*Gadinine*,  $C_7H_{10}NO_2$ , from putrid cod-fish.

Recently Vaughan, in America, has extracted a ptomaine named *tyrotaxicon*, from decomposing cheese, milk, and cream.

But, as I previously stated, not only are alkaloids produced from albumen by its putrefactive decomposition, but also by the chemical changes occurring within the organism during life. In my opinion the formation in the human economy of animal alkaloids will, in all probability, explain the genesis of many diseases. But not only in connection with disease, but every instant of our lives are alkaloids being manufactured within us as a result of the chemical changes upon which life is dependent. Gautier has shown that animal alkaloids are a necessary product of vital physiological processes, poisonous alkaloids having been extracted by him from the secretions of living beings. The following is a list of the principal animal alkaloids so obtained:—

*Creatinine*,  $C_4H_7N_3O$ , from urine.

*Pseudoxanthine*,  $C_8H_9N_3O$ , from urine and flesh.

*Sorbine*,  $C_8H_9N_3O$ , from urine and flesh.

*Xanthine*,  $C_5H_7N_3O_2$ , from urine and flesh.

*Crossocreatinine*,  $C_8H_9N_3O$ , from fresh meat.

*Xanthocreatinine*,  $C_8H_9N_3O$ , from fresh meat.

*Guanine*,  $C_5H_7N_3O_2$ , from flesh and guano.

*Carnine*,  $C_8H_9N_3O$ , from fresh meat.

*Betaine*,  $C_2H_{11}NO_2$ , from urine.

Alkaloids have been detected in the liver, brain, heart, lungs, spleen, and saliva of man; but these have not been submitted to an ultimate analysis, but only recognised by their reactions with the general reagents for alkaloids. The poisonous effects of certain shell-fish (mussels, &c.) have been shown by Brieger to be due to a ptomaine which he has named *mytiloxine*,  $C_6H_{13}NO_2$ .

As I previously stated, animal alkaloids are being incessantly produced within our bodies as a result of the normal physiological processes of life. Side by side with the manufacture and building up of fresh cell-materials must go the destruction of pre-existing cell elements, and amongst the *débris* resulting from this destruction are animal alkaloids. These alkaloids are eliminated by the bowels, kidneys, liver, skin, and lungs; if from any cause these eliminating organs fail to perfectly fulfil their excretory functions, then an accumulation of these alkaloids in the circulation occurs, and a toxic action is exerted by them on the nervous centres. In this way can be explained the headache resulting from constipation, and the more serious nervous symptoms resulting from deficient excretory action of the kidneys in certain diseases of those organs. But it is not only on these excretory organs that we depend for the removal of these alkaloids. A powerful agent is at work, destroying them and preventing their infecting and poisoning the being that

gave them birth, in the oxygen of the blood, which is continually burning them up. With this new knowledge, is it to be wondered at that health is so precarious a condition as we know it to be, when we see that from imperfect elimination, imperfect destruction, or from increased manufacture of these alkaloids, the human body is at the mercy of these fell poisons manufactured within its own recesses? If, the enuncerators remaining sound, there is still excessive production, but inadequate elimination—a condition which is obtained in all forms of over-exertion, as in a prolonged march—then accumulation of material elaborated in excess and imperfectly eliminated occurs, an auto-infectious temporary poisoning of the system results, the poison affecting the nervous centres and producing the fever of over-exertion, the fever of prostration.

III. Ptomaines are divided into two classes, the non-oxygenous and the oxygenous. A few of them belong to the pyridine and hydroxyridine series, showing a close relationship to some of the vegetable alkaloids. Those present known all have simpler chemical formulae than the majority of the vegetable alkaloids. A number of the ptomaines have been prepared synthetically. Let us here consider the question as to whether the animal and vegetable alkaloids form two distinct groups. Is there a well-defined frontier line between them? No; on the contrary, these two groups dovetail: they are inseparably linked together by certain alkaloids common to both. For instance, muscarine, an alkaloid present in the fly-mushroom has been found in putrid fish; betaine, an alkaloid contained in beetroot, has been found in the urine of man; guanine and uric acid, two alkaloids found in flesh, have recently been detected in the young sprouts of the plane-tree, vine, and other plants.

IV. Ptomaines are generally powerful poisons, the free ptomaines being more energetic than their salts; they are either solid or liquid bodies, very alkaline, uniting with acids to form crystalline salts. They are precipitated by the general reagents that precipitate alkaloids, viz. ferrous solution, the double iodide of bismuth and potassium, phosphomolybdate of sodium, picric acid and tannin; they unite with platinic chloride and auric chloride, forming with both double salts.

Several of the ptomaines give colour reactions with the strong mineral acids. They are very oxidisable on exposure to the air, and therefore are powerful reducing agents, liberating iodine from iodic acid, and reducing ferric chlorides to the ferrous state; they, therefore, when added to mixed solutions of ferric chloride and ferricyanide of potassium, throw down the dark blue precipitate of Turnbull's blue, a reaction which was until recently thought to be characteristic of ptomaines, and to differentiate them from the vegetable alkaloids; but Gautier has shown that apomorphine and muscarine act in a similar manner. Gautier states, however, that the negative test can be used to differentiate with certainty the ordinary vegetable alkaloids from ptomaines.

A most important practical point is, whether in medico-legal investigations there is a possibility of coming across a ptomaine produced by decomposition with any of the poisonous vegetable alkaloids that might have been administered or taken during life. I can most emphatically state that it is practically impossible in a medico-legal examination of the viscera, for an expert to confuse the very minute quantities of animal alkaloids, which have been produced by post-mortem decomposition, or which exist naturally with any of the vegetable alkaloids which might have been introduced during life.

V. I will now say a few words as to the probable genesis of the contagious diseases. As you are aware, some special micro-organisms have been traced, or relegated, by bacteriologists to each contagious fever, and has by many been regarded as the *materies morbi*, the causative factor of the disease, though no explanation has been offered as to how these micro-organisms start their own special disease in the body they have invaded. Now, one explanation which I have for some time entertained is that after the admission of these micro-organisms into the body, and provided they find the conditions suitable, they live and multiply, and thus, as a result, or a residuum, of their vital activity, a powerful alkaloidal poison is produced, the toxicity of which is the cause of the symptoms of the disease. If so, each contagious disease would be the result of a fermentative decomposition of albuminous matter within the body, induced by a special

organism manufacturing its own peculiar poison for disease. In the case of some of the non-contagious diseases, which, at present, we do not believe to depend on the action of a micro-organism, it is probable that some of the chemical decompositions occur within the body and give rise to a poison, possibly alkaloidal, which exerts an influence on the organism.

Can any facts or experiments be adduced in support of the views? Yes, but they are meagre, as one would naturally expect considering the primeval condition of this time, but I think that they are prophetic. Pouchet has traced from the fæces of a cholera patient an alkaloidal which injected into animals produces slowing of the and later death, followed quickly by *rigor mortis*. The author has obtained from cultivations of Koch's cholera traces of an alkaloid which appeared to be identical with the preceding one. Again, from cultivations of the bacillus Brieger obtained a small quantity of a new alkaloid that he calls *typhotoxine*, and which yielded results different from the alkaloids he had previously obtained from putrefying animal matters. Quite recently Mann, of the Victoria University, has extracted from the abdominal and thoracic organs of a patient suffering of typhoid fever during the third week of the disease an alkaloid, which was obtained in too small a quantity to enable its composition by ultimate analysis to be determined, but which by its qualitative reactions differs from the typhotoxine obtained by Brieger, although I think it is quite possible that the differences as regards the action of reagents might be caused by impurities or changes in the alkaloid during extraction by one or the other method. Again, Brieger from cultivations of the tetanus bacillus extracted four ptomaines, all of which when injected into animals produced tetanus.

In my view as to the dependence of each contagious disease on an alkaloidal poison is received with scepticism, as it is probably will be by many at first, I would recall the fact that the power of plants to manufacture alkaloids was also first discovered with a great deal of doubt, and that later a similar discovery was shown to the admission of animals also possessing the power of forming alkaloids.

The whole subject of the causation of the contagious diseases at present enveloped in an almost Egyptian darkness, through this darkness the light of chemical science is beginning to struggle. Chemistry has commenced the exploration of this dark continent of disease, and to those who employ this science as a means with which to search for poisons and diligently, I feel hopeful that it will reveal the poisons of these diseases. If we become acquainted with these poisons and their properties, is it too much to expect that we shall be able to directly treat fevers, and so avoid the reproach that, in the case of the contagious diseases, the medical man is obliged to stand by helpless and to treat untoward symptoms that may arise? If a knowledge of the animal alkaloids leads us in this direction, an immense progress in medical and in chemical science will have been made, and the truth of Bacon's axiom will more be manifest, that "The end of knowledge is the well-being of the human race."

MARRIAGES.

*Notices of Marriages and Deaths are inserted free if sent in proper authentication.]*

ATHERTON—CLARKE.—On March 20, at St. John the Baptist Catholic Church, Brighton, Will. U. Atherton, of Barking, Essex, to Ada, eldest daughter of the late F. J. Clarke, Esq., J.P., of Bracebridge Hall, Lincolnshire.

PROSSOR.—On March 13, at the Church of St. Nicholas and All Angels, Portsea, James Hay, A.P.S., of 11, South Road, Herne Hill, S.E., and Alford, Aberdeen, to Elizabeth, fifth daughter of George and Ellen Prossor, of Portsea.

NEW CURE FOR WHOOPING-COUGH.—A Norwegian physician avers that whooping-cough may be readily cured in a single night, by causing the patient to sleep in a room in which sulphur has been burned.

Gazette.

THE BANKRUPTCY ACT, 1833.

RECEIVING ORDERS.

- BARNES, W. J., Rainham, Essex, chemical manufacturer.
- CHITTENDEN, CHARLES PIERCE DOWNEY, Bexhill, Sussex, surgeon.
- POWELL, DAVID, Swansea, chemist and druggist.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

- BARNES, LAWRENCE ROBERT (trading as Barnes & Co.), York, chemist and druggist. March 26, Official Receiver's Office, York. April 13, Guildhall, York.
- MARSTON, GEORGE HENRY, Lordship Terrace, East Dulwich, late of Swiss Terrace, Forest Hill, Commercial Road, and Whately Road, East Dulwich, chemist. March 27, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields. April 19, 34 Lincoln's Inn Fields.
- POWELL, DAVID, St. Thomas, Swansea, chemist and druggist. March 27, Official Receiver's Offices, Swansea. April 12, Town Hall, Swansea.
- PAYNE, JACOB HUGH, Thrapston, Northamptonshire, chemist and druggist and sauce manufacturer. March 26, Bankruptcy Buildings, Portugal Street, Lincoln's Inn. April 17, County Hall, Northampton.
- WOLSTENHOLME, JOHN HANCOCK, Abergele, Denbighshire, surgeon. March 23, Official Receiver's Offices, Chester. March 29, Court-house, Bangor.

ADJUDICATION.

- CROOKES, JOSEPH, Dundee, late of Eckington, Derbyshire, chemist and druggist.

ORDERS ON APPLICATIONS TO APPROVE SCHEMES.

- ACKERMAN, HENRY, Bristol, wholesale druggist, chemist, and dentist. Composition of 4s. within seven days.
- MILWARD, W. CLEMENT, St. Stephen Square, Westbourne Park, late of Brixton Rise, Brixton, doctor. 300*l.* paid to the Official Receiver to be applied after payment of fees, costs, charges, and expenses, &c., *pro ratâ*, among the creditors. Receiving order rescinded.

NOTICES OF DIVIDENDS.

- BADGER, WILLIAM JAMES, Allcroft Road, Haverstock Hill, and Drury Lane, mineral water manufacturer. First and final div. of 1*s.* 0½*d.*, any day except Saturday, Chief Official Receiver's Offices, 33 Carey Street, Lincoln's Inn.
- HANNAY, JOHN, Lea Cross, Salop, surgeon. Second and final div. of 3¾*d.*, any day, Mr. F. Cariss's, Mill Street, Ludlow.
- WRIGHT, THOMAS POYNTZ, Oldham, surgeon. First and final div. of 9*d.*, March 23, 12 Greaves Street, Oldham.

WHITHAM, JOSEPH, trading as Joseph Whitham & Co. at Miles Platting and Pendleton, Lancashire, as a chemical manufacturer. First div. of 7*s.* 6*d.*, March 27, 2 Clarence Buildings, Booth Street, Manchester.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

- DENNAN, JOHN EUSTACE, Lower Phillimore Place, Kensington, surgeon dentist. Discharge suspended for one month.
- LIGHTBOWN, THOMAS, Rishton and Padham, Lancashire, wholesale druggist. Discharge suspended for nine months.

SCOTLAND.—PETITION FOR CESSIO.

LEITCH, ARCHIBALD J., 146 George Street, Glasgow, artificial limb, truss, and bandage maker. To be examined in the Chambers of Sheriff Substitute Balfour, County Buildings, Glasgow, on March 27, at ten o'clock.

MR. BLANK'S ADVERTISEMENT.

WE now append our final selections from the post-cards sent us in the competition No. 2, which, it will be recollected, was for a general or specific 2-inch advertisement in a local paper likely to promote business.

We regret that we cannot endorse the recommendation of "Bon Accord," who proposes to buy testimonials as follows:—

Mr. BLANK, Chemist, Dull Town, offers Six Money Prizes, one of 2*l.*, one of 1*l.*, and four of 10*s.* each, amounting in all to

FIVE POUNDS,

to any who have used his "Nerve Tonic," for the best testimonials to its efficacy. The winners' names, addresses, and testimonials to be advertised in this paper during the month of March.

Competition to close on the 25th instant.

BON ACCORD.

V. would allure the unsuspecting reader by the delusive idea that there was a thousand pounds to be picked up in the following manner:—

IMPORTANT PUBLIC NOTICE.

ONE

Trial of Dr. BLANK'S Liver Pills will convince the most sceptical of their efficacy in Nervous and Bilious Disorders. For wind and pain in the stomach, chest or back, loss of appetite, sickness, headache, giddiness, costiveness, female complaints, they are unequalled, and afford almost instant and permanent relief, and lay the foundation of perfect health and strength. More than a

THOUSAND

Can already testify to the great benefit of such a remedy, in relieving and curing the above painful and annoying disorders, and many

POUNDS

May be saved by the afflicted, if, instead of buying worthless imitations, so cunningly advertised, they will take Blank's Liver Pills. Any person doing so will meet with his or her own

R E W A R D .

Call at Blank's Popular Pharmacy and get a 1*s.* box, and see the numerous testimonials received, which will prove the above statements.

V.

The following would be effective from a sensational point of view:—

APPALLING

Are the hundreds of deaths every year from Lung Diseases. These may have been prevented by taking

BLANK'S

GREAT LUNG HEALER.

In bottles, at 1*s.* 1½*d.* and 2*s.* 9*d.*

ACCIDENTS

Of all kinds, whether bruises, sprains, kicks, &c., or mishaps in the hunting-field, may be speedily cured by

BLANK'S

UNIVERSAL SPRAIN LOTION.

Prepared, together with many other valuable remedies, only by

T. L. BLANK, Pharmaceutical Chemist, Dull Town.

RICHARD BILTON, Holsworthy, Devon.

Mr. Wilson's idea, which we subjoin, could be more forcibly shown if the alphabetical arrangement were printed in a long column:—

ALBERT  
BLANK,

Chemist,  
Dispenses

English,  
French, and

German  
prescriptions,  
Having

In stock,

Judiciously  
Kept, the

New and  
Old

ALBERT  
BLANK,  
CHEMIST,  
DULL TOWN.

Leading  
Medicines, also

Prescriptions and  
Quaint

Remedies. He  
Saves

Time by  
Understanding

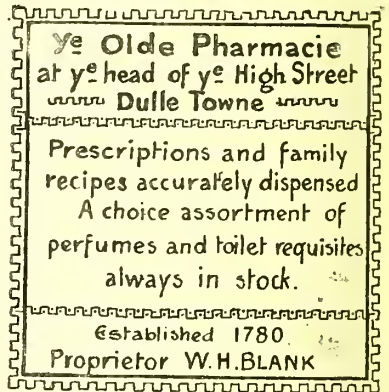
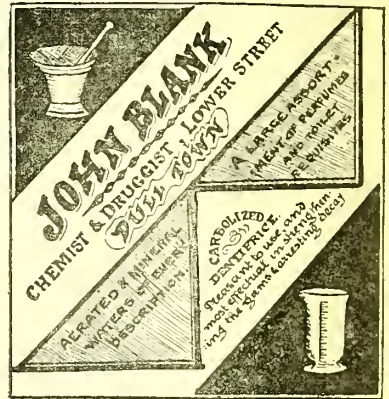
Very  
Well the e-

Xpectations of  
Your

Zymotic and  
other patients,

JOHN WILSON, Birmingham General Dispensary.

We next give two very artistically designed general advertisements suggested by Mr. F. Smith, Deal:—



The idea involved in the next design is to so arrange the type as to give the appearance of a bottle by the side of the general advertisement. For such a purpose, however, it must be remembered that type is a little less elastic than penmanship.

"Curâ et Labore"

MODERN PHARMACY.

TRY  
MY CURES  
FOR

JOHN BLANK  
Dispensing Chemist, &c.,  
HOPE STREET, DULL TOWN.

NEURALGIA!  
DYSPEPSIA!  
RHEUMATISM!  
WEAK JOINTS!  
COUGH & COLD!  
CORN & WARTS!  
FALLING HAIR!  
LIVER COMPLAINT.

begs to introduce to extended public notice his medicinal preparations, which are made with great care, as the result of his professional experience and knowledge of local requirements.

Each article has been proved useful for the purpose intended.

THE DISPENSING DEPARTMENT

has been furnished with modern appliances for elegance and dispatch; and most careful attention is given to every detail to ensure

IN BOTTLES ONLY

HIGH CLASS DISPENSING

At ONE SHILLING. Feb., 1883.

J. J. E.

A Canadian competitor announces himself locally thus:—

PEOPLE OF DULL TOWN,

Kindly remember that Mr. Blank has opened a drug-store in your town, where every transaction will be conducted on honest business principles.

Dispensing done properly by a competent chemist.

I will endeavour to merit your patronage.

Yours respectfully,  
MR. BLANK.

next is a startler, but it suggests poverty on the part of the advertiser, which is not, perhaps, a desirable impression to create.

**HARD TIMES!**

ALL GOODS AT REDUCED PRICES.

1888.

BLANK, Chemist, DULL TOWN.

GEO. O. PEARSON, Northallerton.

There is some novelty and ingenuity about the following advertisement which would probably render it a successful one.

**NOTICE.**

The Registrar-General's return shows that 32 per cent of the deaths in 1887 were due to diseases arising from common coughs and colds.

LOST, a harassing cough by taking **BLANK'S COUGH LINCTUS.**

How many lives may not therefore be saved by a reliable and trustworthy remedy!

**BLANK'S COUGH LINCTUS**

gives relief quickly, and cures effectually, COUGHS, COLDS, BRONCHITIS, ASTHMA, &c.

BLANK, HIGH STREET, DULL TOWN.

**SPORANGIUM.**

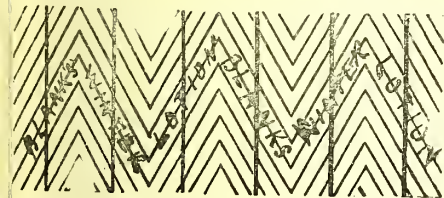
Stephenson, of Bradford, offers a similar idea in the following, which is extracted from his post-card:—

A COUGH! and the finder may do the same by taking —'s Cough Balsam, sold in bottles at 7s. and 1s. each, by, &c.

Some competitors adopt the idea suggested by Messrs. and propose the insertion of optical illusions as — The first is sent by Mr. T. D. Wright, Southport:—

**A CURIOUS OPTICAL ILLUSION.**

By holding this in a slanting direction, looking down the thick black lines, will be seen that they are parallel, although they appear to taper in opposite directions.



BLANK'S WINTER LOTION is a valuable preparation for chaps, chilblains, roughness of skin, &c.

In 6d. and 1s. bottles.

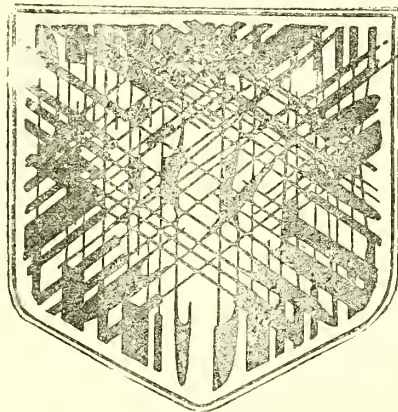
Prepared only by BLANK, Chemist, DULL TOWN.

The advantage of this advertisement (says Mr. Wright) is that it is cut out (as in all probability it will be) and pasted on into a book to be kept, the words, "Blank's winter lotion" cannot be got rid of without spoiling the illusion.

A correspondent in Paris (T. A. K.) sends the following:—

"Patience is a salve good for all sores."—(Ancient proverb.) This may be true, but patience is a virtue for which we shall have necessity no longer, for BLANK, Chemist and Druggist, possesses a lotion named BALSAM OF FLOWERS which eradicates spots, pimples, and hardness of the skin, rendering it soft, delicate, and blooming. Our lady friends have found it very useful during the late severe weather, which, according to barometrical reading, is likely to continue for some time to come: hence make a note of this.

Mr. F. Smith, Deal, sends the next one, which will be easily read by looking at it with the eye on a level with the page.



We presume we are indebted to St. Valentine's Day for the design annexed.

JOHN BLANK CHEMIST'S DRUGGIST

Startles the heart of the mischief of once

Effectually stops pain

**BLANK'S NEURALGIA MIXTURE.**

Strengthens the weak nerves

Is available for all 1s. 1/2d. per. bott.

MARKET PLACE DULL TOWN.

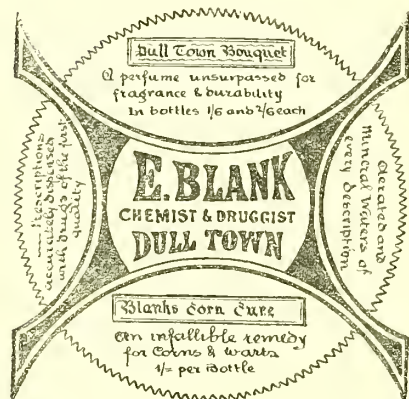
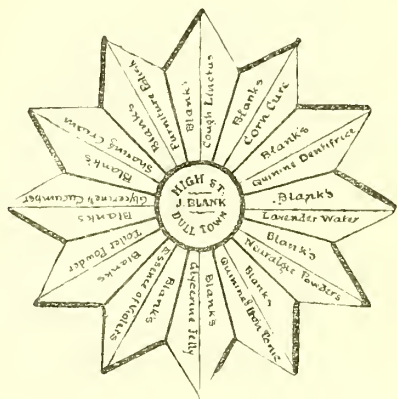
The suggestion which follows is more striking than the lovely:—

From: S S Blank  
31, Fore Street  
Dull Town

**WHAT'S THIS?**

you will say  
The PRINTERS have made a grand bludge  
hor!" — **NO MY FRIEND IT IS NOT**  
**AN ERROR** but as intended to awake you to the  
conviction that you are wasting your  
**TIME** and **MONEY**  
in trying to cure that Cough & Cold which  
wornes you so at this time of the year  
You may find relief in one dose of Blank's  
Cough Balsam & one 1/12 bottle will cure  
you outright. 1000s of testimonials.

We wind up with two more very excellent designs, fac-similes of drawings on post-cards sent us by Mr. F. Smith, Deal.



We have still a very large heap of post-cards, many of which we had hoped to make room for. But the awards were made from a careful examination of the whole parcel before any were selected for printing. We decide to pay the guinea to Mr. Frederick Smith, 196 High Street, Deal, who, it will be admitted, has given us several artistic and effective designs for general advertisements. We name especially the first of his printed (the one showing the mortar with the graduated measure at its corners) as the one for which the prize is awarded. We also award half a guinea each to W. G. Blackham, 165 Brecknock Road, London, N.W., for his advertisement of "Wild Cherry Cough Elixir" (printed last week on page 368), which, we think, is so worded as to attract customers; and to Mr. T. S. Pearson, Maidstone, for his advertisement headed "Found Dead," printed last week on page 369.

A BROOKLYN physician, who gives particulars of sixteen cases of poisoning with castor-oil beans, in all of which vomiting and nausea were extremely severe, mentions the fact that in not a single case was purging produced by the beans.

TO PAINT A BLACK EYE there is nothing to compare with the tincture of *Capsicum annuum*, mixed with an equal bulk of mucilage of gum arabic, with the addition of a few drops of glycerine. The mixture should be painted over the bruised surface, a second and third coating being applied as soon as the first has dried. If applied immediately after the injury is inflicted, it will almost invariably prevent discolouring of the tissue. The remedy is also of value in rheumatism, sore or stiff neck.

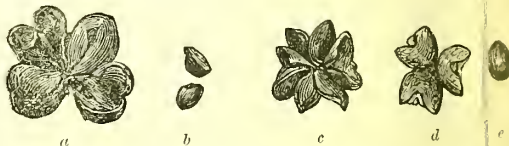
NOTE ON THE FRUIT OF *EVODIA FRAXINIFOLIA*.

By H. HELBING, Apotheker of the German Hospital, London.

I HAVE recently received from different commercial sources parcels of fruits under the name of *Evodia fraxinifolia*, which, although they were also obtained from India, differ very widely from that which I investigated some time ago, and the essential oil of which I recommended at the last meeting of the British Pharmaceutical Conference as a deodorant for iodoform. I therefore think it necessary to explain the anomaly.

The plant and fruit which first came under my notice, and the oil of which formed the subject of the communication referred to, are described in Christy's "New Commercial Plants," No. 10, p. 58, by Mr. Lewis Castle, who specially draws attention to the fact that *E. fraxinifolia* has been frequently delineated under various other generic names, as *tetradium*, *xanthoxylum*, *philagonia*, *megabotrya*, *leia*, and *hoymia*, and it seems from the inquiry which I have made that Mr. Castle was mistaken in his classification of the plant. I forwarded a sample of the fragrant oil-bearing fruits, and of the above-mentioned commercial article to Mr. Jackson, curator of the Kew Museums, and for the following botanical particulars I am indebted to his kindness.

It seems now almost indubitable that the fruits which I had in hand at first were derived from *Xanthoxylum hamiltonianum*, and that the drug now offered is the real product of *Evodia fraxinifolia*. The latter are somewhat larger than the herbarium specimens at Kew, but the fruits are believed to vary in size, and the small aromatic ones, as above stated, are considered to be those of *X. hamiltonianum*, though the material now available is not sufficient for positive determination of this point.



a. Fruit of *Evodia fraxinifolia* (viewed from the apex), two of the carpels of which dehisced. b. Seeds of the same. c. Fruit of *Xanthoxylum hamiltonianum*, with four carpels, all of which have dehisced (viewed from the apex). d. A three-carpelled fruit of the same (viewed from the base). e. A seed of the same. These drawings are of the same size as the fruits and seeds.

The fruits of the true *Evodia fraxinifolia* consist of four carpels united into a star-like shape, each of which contains two longitudinal and three rounded angular seeds poised at the two ends. The seeds are of a dark brown, faintly striated appearance. The epicarp is parchment-like, more or less speckled, and dirty earthy brown in colour. The fruit of *X. hamiltonianum* consist of from three to four carpels similarly arranged, and the pericarp is brown, and dotted with minute warty points. The seeds are heart-shaped, and have a splendid black colour. The fruits of this plant are only about half as large as those of *E. fraxinifolia*, though they are much more elegant in form and appearance, but the seeds of the last named are the smaller.

I consider it desirable to make known this correction as to the supposed source of the fragrant seeds, as the seed of the true *E. fraxinifolia* does not seem, judging from the samples now in commerce, to contain any oil suited to the purpose above named; as far as can be judged, they are quite valueless, and their continued introduction into commerce would apparently serve no useful purpose. We have therefore to transfer the source of the iodoform-deodorising properties of the oil I extracted to the fruit of *Xanthoxylum hamiltonianum*, and I hope that the difficulty in procuring the original drug will for the future be avoided, and the correct name of the plant is now known.

DR. LAUDER BRUNTON has stated that salicylate of sodium in some persons tends to cause most disagreeable hallucinations whenever the eyes are shut, and this is fully corroborated by other observers. The hallucinations which are occasioned by the drug are of the most curious character, and very irritating to those patients who thus suffer.

## FAILURES AND BANKRUPTCY REPORTS.

**J. PATRICK LETTERS**, lately of Dundee, Doctor of Medicine.

Examination of this bankrupt, whose apprehension in we reported last week, took place at the Edinburgh Bankruptcy Court on March 14. In reply to the trustee, James F. Mackay, W.S., the bankrupt stated that for a number of years he was a medical practitioner in Dundee, and he had also four drug shops. About the end of 1877 he entered into negotiations for the sale of his business and practice with Dr. McGregor, who ultimately purchased them, giving three bills and 80*l.* cash, amounting to 500*l.*, in part payment. He promised to make payment of one of his creditors, Messrs. John Mackay & Co., sole druggists, Edinburgh, in August. They were to receive the 500*l.*, pay themselves 300*l.* he owed them, and to pay over the balance. This arrangement was made under compulsion of a decree which Messrs. Mackay & Co. obtained against him, and which they threatened to enforce unless they obtained payment of their debt from the bankrupt. He left Scotland on August 1, having got payment from Dr. McGregor of the 500*l.* The arrangement with Messrs. Mackay & Co. was not carried out. He tried to sell his furniture, and took the rest with him to Ireland. Before leaving Dundee he acquainted Messrs. Mackay & Co. of Glasgow by postcard, but did not give his address. It was his intention to commence practice in Dublin, but he afterwards thought he would do better in Carlow. His wife had a net worth 130*l.* per year, and he offered to leave the property with Messrs. Mackay & Co. as security for his debts, but they declined. His wife had advanced him at various times sums amounting to about 250*l.*, and he repaid her the money out of the proceeds of the bills. She had demanded repayment. Before leaving Dundee he paid various debts what he owed them. He remained for three months in Carlow. His wife took a house in her own name there and finished it. After further examination, directed to appear at the bankrupt while in Ireland was evading arrest, and that he was willing to make up a statement of his affairs, and getting access to the necessary papers, which were in his room. He kept the transactions of his Dundee business printed slips, which he was aware had been destroyed. He was asked after Dr. McGregor had inspected them. He said he kept no books in connection with his Dundee business. Mr. Mackay, in asking an adjournment, said the bankrupt's debts were only 130*l.* or 140*l.*, and that the expenses had been extremely great. The further examination was adjourned till March 28. On emerging from the Bankruptcy Court Mr. Letters was apprehended by a sheriff-officer from Carlow, under a warrant charging him with an alleged infringement of the Bankruptcy Act.

**LOCKWOOD & LEITH**, St. Helens, Manufacturing Chemists.

The Liverpool Bankruptcy Court on Monday last, before Registrar Bellringer, William Lockwood and John Leith, Messrs. Lockwood & Leith, of the Boundary Road, and the Chemical Works, St. Helens, appeared for their public examination. Mr. Sparrow appeared for the debtors, and Mr. Evans for the executors of W. L. Evans; Mr. Hawkins appeared for the creditors. The statement of affairs showed that there were unsecured debts to the amount of 19,475*l.* 6*s.*; secured creditors, 15,000*l.*, showing a slight surplus; and partially secured debts, 11,680*l.*, holding securities valued at 5,055*l.*, and 6,625*l.* 1*s.* 7*d.* to rank against the estate; making the total indebtedness 26,100*l.* The assets consist of cash, 66*l.* 10*s.* 6*d.*; stock-in-trade, 1,807*l.* 1*s.* 8*d.*; machinery, plant, &c., 3,398*l.*; and good debts, 905*l.*; making a total of 6,107*l.*

The debtor William Lockwood was first examined by Mr. Bellringer the Official Receiver. He stated that the partnership of Lockwood & Leith commenced in December, 1873. Mr. Lockwood introduced 5,000*l.* of capital, and Leith introduced 600*l.* He had drawn 7*l.* a week as a salary, and he drew like amount during the last few years, and each 5*l.* before that, but he (Lockwood) had drawn, in addition, 1,100*l.* and 1,200*l.* during the fourteen years. There

were articles of partnership drawn up, but he could not say where they now were. In regard to his 5,000*l.*, he had received 3,000*l.* from Mr. Evans on the understanding that if the business succeeded it was to be repaid, and if not it was to be treated as a gift. He also had 1,500*l.* from his mother, and this money had come to him as part of his share under her will when she died. The balance was from a gentleman named Haxby, under whose will he also had an interest. He had a letter from Mr. Evans showing the conditions upon which the 3,000*l.* was advanced. He had not scheduled Mr. Evans as a creditor for that amount. Witness was to look after the commercial, and Leith after the practical, part of the business. They first of all purchased the Boundary Road Works for 3,000*l.*, subject to a ground-rent of 108*l.* per annum. The only article they had manufactured there was caustic soda. In the first year, 1874, they lost 1,277*l.* 16*s.* 2*d.*; in 1875, 1,780*l.*; in 1876, 922*l.*; in 1877, 477*l.* 7*s.*; in 1878, 1,451*l.*; in 1879, 987*l.*; and in 1880, 2,631*l.* In 1881 there was a profit of 166*l.*; in 1882, a loss of 572*l.*; in 1883, a loss of 120*l.*; in 1884, a profit of 269*l.*; in 1885, a loss of 408*l.*; in 1886, a loss of 129*l.*; and in 1887, 5,341*l.*; which, with the estimated depreciation, &c., on the works, made up the deficiency of 19,993*l.* Up to the year 1880 they had made a loss of 993*l.* on a salt-cake contract, but it was not written off until 1887; and other amounts of 530*l.* and 258*l.* incurred before 1880 were not written off until 1887. On June 30, 1880, by their books, witness had a balance of 2,695*l.* to his credit, and Leith had 3,964*l.* to his debit; but if they added the losses then accrued, but not written off till 1887, they would have a clear deficiency of about 3,000*l.* at that date. Witness had since then paid in a sum of 80*l.*, and Leith had recently paid in 800*l.*, obtained by mortgage on his dwelling-house.

The Registrar: So that they have been fighting against a deficiency since 1880.

The debtor continued to say that in 1887 they made a contract to supply "bleach," which they expected would prove very remunerative, but the loss, through non-fulfilment, was about 3,000*l.* They had not made bleach previously; but they had taken the Parr Works in the interval. The Boundary Road Works now stood in their books at 11,187*l.*, but they had allowed a depreciation of 5,601*l.* upon them in their deficiency account. That was taking them at their breaking-up value, if sold by auction. They had not written off depreciation as they had gone along, as they considered that they had kept up the works in full working order; had spent as much as 500*l.* a quarter in keeping them up. In the same way they had estimated the depreciation on the Parr Works at 4,167*l.* They had spent 7,000*l.* upon these works in addition to their first cost, which was 10,000*l.* They bought them in May last year. They did not consider that it was a very serious undertaking for them to purchase those works in their then state of insolvency. One reason for the purchase was that they had no room at the Boundary Road Works for the deposit of their waste. There were 35 acres of land at Parr. They also intended to make caustic soda there, as they expected to do so much more cheaply. There was a good deal of plant there which could be converted cheaply. They purchased the Parr Works from the bank, which had a mortgage on them to the extent of 25,000*l.*, for 10,000*l.*, the payments to extend over twelve years. Nearly all their present trading debts had been incurred since September last. There was an account in the private ledger headed "W. L. Evans—Special Account." Mr. Evans was his brother-in-law, and was now deceased. In March, 1883, they had a fire at their works, and, pending settlement with the insurance company, Mr. Evans advanced them 500*l.* on an assignment of the insurance money. When this was paid, they, with his consent, used the money, and substituted as security assignments of customers' debts, increasing the amount to 700*l.* As the debts were paid they continued using the money, and substituting fresh assignments. This continued even after his death in October last, until just before the bankruptcy. They came to the conclusion that they would have to stop payment on February 4 last. They had consulted about it previously, and come to the conclusion that they must stop unless they could raise some more money, which they failed to do. On February 4 they issued notices to certain debtors giving notice of the assignment of their debts to Evans's executors. They were advised to do this by their solicitor, Mr. Moore. He was himself one of

Evans's executors. On February 10 they had a meeting of their creditors, and the petition in bankruptcy was filed on February 23. They had made a complete disclosure of their affairs, and of all their property.

Examined by Mr. Pierce, a creditor:—It was not a fact that Mr. W. L. Evans was a partner in the business. The claim of 2,900*l.* odd by Knight, Hill & Co., of London, arose through their not being able to carry the bleach contract through.

By Mr. Sparrow: At the time they bought the Parr Works there was every prospect of the bleach contract turning out very remunerative. Their contract failed partly owing to a delay caused by a dispute as to the boundary of the Parr Works, and partly to damage caused in the works by a heavy storm. A great portion of the plant they wished to utilise for the bleach manufacture was on the land in dispute. They had hoped to be in a position to deliver "bleach" early in January, and as it was a cash contract they had hoped after that to be all right. Mr. Evans was his brother-in-law. The executors, or rather his co-executor, Mr. Thomas Evans, sent a notice to the debtors whose debts were assigned on the same day as the firm—February 4. Mr. Evans was advised to give the notice. Witness had told him that the firm was in difficulties, and he thought he also told him that they thought they had better suspend.

John Leith was next examined. He said that Mr. Lockwood's evidence was correct except as to some details of practical working with which Mr. Lockwood was not as conversant as himself. The damage done by the storm was much more extensive and serious than Mr. Lockwood had implied. He also considered that large amounts had gone down in the books as loss on caustic soda which had really been spent on new buildings and works. He considered the Boundary Road Works had cost at least 15,000*l.* in all, instead of 11,000*l.* It would cost them 1,200*l.* a year to provide land for depositing their waste, so that for that reason alone the purchase of the Parr Works at the price was desirable. They also expected there to save 10*s.* to 15*s.* a ton on the cost of making the caustic soda. The "bleach" contract, he had calculated, if carried out, would have yielded them a profit of 5,000*l.* The contract was to extend over the current year. Mr. Lockwood had no doubt consulted him as to Evans's matter, but he could not remember what had passed.

At this stage the public examination was adjourned to April 9.

The first meeting of creditors was held on Tuesday, at the offices of the Official Receiver, Victoria Street, Liverpool. There was a large attendance of creditors. After going through the proofs and reading the statement of affairs, Mr. Oppenheim, on behalf of the debtors, asked for an adjournment to enable them to make an offer which it was thought would be accepted. After considerable discussion it was arranged to adjourn until Monday next.

The following is a list of the principal creditors on the estate:—

Anglesey Limestone Company .. .. .	£ 135
Aspinwall, J., Blonnegate, coal merchant .. ..	468
Buxton Lime Company .. .. .	114
Blundell, J., & Co., coal merchants .. .. .	190
Brownlow, Foster & Co., coal merchants .. ..	56
Burrows, E., & Son, St. Helens, engineers .. ..	87
Bibby, J., & Sons, St. Helens, copper works .. ..	93
Blockhain Fireclay Company .. .. .	77
Cheshire Amalgamated Salt Company .. .. .	64
Charnock, J., & Sons, Halifax, stone merchants ..	154
Dunn Brothers, Manchester .. .. .	104
Dobell, G. C., & Co., Liverpool .. .. .	417
Dawson, C., & Co., Mold .. .. .	111
Gamble, J. C., & Sons, St. Helens .. .. .	922
Glover, Urnson & Co., St. Helens .. .. .	83
Garnski-k Fireclay Company, Glasgow .. .. .	111
Henderson & Co., Irvine, N.B. .. .. .	177
Hellewell & Co., Liverpool, rubber merchants ..	147
Holman, Mitchell & Co., St. Helens .. .. .	672
Johnson, Clapham & Co., Liverpool, iron merchants	797
Kurtz, A. G., & Co., St. Helens .. .. .	107
Kneeshaw, Nupton & Co., Liverpool .. .. .	612
Knight, Hill & Co., Billiter Street, London .. ..	3,452
Lathom, James, St. Helens, timber merchant .. ..	642
Laneshire Alkali and Sulphur Company .. .. .	91
McKechnie & Co., St. Helens .. .. .	175

Melling, Thomas, Newton, coal merchant .. .. .	£ 70
Moore, Stuart & Co., Temple, London .. .. .	407
Newsome, W., St. Helens, coal merchant .. .. .	223
Parr's Banking Company, St. Helens .. .. .	02
Oppenheim, Malkin & Co., St. Helens .. .. .	60
St. Helens Chemical Company .. .. .	14
St. Helens Corporation .. .. .	52
St. Helens Colliery Company .. .. .	45
Simpson, Davies & Co., Runcorn, coal merchants ..	55
Simpkin, Thomas, Runcorn, contractor .. .. .	00
Thompson, Crippin & Co. .. .. .	30
Vivian, Sons & Co., Swansea .. .. .	29
Warley, J., & Co., St. Helens .. .. .	30
Wigan and Whiston Coal Company .. .. .	49
Ward, James, Grange-over-Sands, lime works .. ..	56

#### Re WILLIAM FREDERICK BIRCH, Cherry Street, Birmingham, Dentist.

THIS debtor applied on March 15 for his discharge. Mr. Sharp reported that the debts were 1,240*l.*, and the assets were put down at 961*l.*, but the trustee had only realised 184*l.* The bankrupt had carried on a business under the title of the Odontobaph Company for the sale of toilet powders. The business was managed by a Mr. Schfeldt, and no proper books had been kept. Mr. Vachell (who appeared for the bankrupt) stated that the debtor's position was entirely due to Mr. Schfeldt, who was an artful scoundrel, and who had recently served twelve months' imprisonment for forgery. Schfeldt managed the business entirely, buried all the debts, and the bankrupt could get no proper account from him. His Honour granted the discharge, subject to judgment being entered up for 150*l.*

#### Re J. CROOKES, Dundee and Eckington, Chemist and Druggist.

THE receiving order in this case was made on the petition of Messrs. J. T. Dobb & Son, Sheffield, chemists, creditors for 22*l.* 6*s.* 11*d.*, and Messrs. W. T. Wyles & Co., manufacturing chemists, of Coventry, for 36*l.* 5*s.* 8*d.* The debtor has filed no accounts, but amongst the creditors who have proved are Messrs. Greaves & Sons, 54*l.* 4*s.* 1*d.*, and Messrs. Richardson & Co., 11*l.* 5*s.* 3*d.* The first meeting was recently held at the St. James's Hotel, Derby, and a resolution was then carried to wind up the estate in bankruptcy. On Wednesday the debtor was to have attended before Mr. Registrar Giffard in the London Bankruptcy Court for his public examination, but nothing was done beyond making an order to transfer the proceedings to the Derby Court.

#### Re G. H. MARSTON, East Dulwich, Chemist.

IN this case the receiving order was made on the debtor being described as George Henry Marston, of Lordship Terrace, East Dulwich, in the county of Surrey, lately carrying on business at 2 Swiss Terrace, Forest Hill, in the county of Kent, and 371 Commercial Road, E. in the county of Middlesex, and 4 Whately Road, East Dulwich, in the county of Surrey, having for the greater part of the past six months resided at 7 Lordship Terrace, East Dulwich, aforesaid. He has now filed accounts showing fully-secured creditors 435*l.* (the estimated value of the security being 0*l.*); creditors for 351*l.*, secured to the extent of 75*l.*; creditors for rent, rates, taxes, &c., 47*l.* 13*s.* 10*d.*; and unsecured debts, 409*l.* 7*s.* 8*d.* On the other side the stock in trade is returned at 5*l.*, the fixtures at 7*l.*, and the furniture at 5*l.*; the debtor, of course, being all absorbed by the preferential claims. According to the Official Receiver's observations, "The debtor states that he commenced business at Forest Hill in 1868 with a capital of 50*l.*, has also traded at Commercial Road and East Dulwich, and opened his present premises in March 1885. He attributes his insolvency to his expenses having been in excess of his profits, and to loss by seizure and sale of his stock, furniture, and effects in June, 1884. His books of account consist only of a takings-book and a rough note-book referring to his creditors' accounts in respect of his present business. He has by consent been adjudged bankrupt."



RIPPON, 85 Upper Street, Islington, Chemist and Druggist.

In this case the receiving order was made on February 22; the debtor has been adjudged bankrupt and an order made for the summary administration of the estate. Mr. G. W. Appo, one of the assistant official receivers, presided on the summary at the first meeting of the creditors. The accounts show gross liabilities of 324*l.* 19*s.* 8*d.*, of which 10*s.* 8*d.* is expected to rank against assets estimated at 10*s.* 1*d.* At a private meeting of the creditors in January last a composition of 10*s.* in the pound was refused. Below is a list of the principal creditors:—

	£	s.	d.
W. Brothers & Co., Aldgate .. ..	36	6	11
W. Son & Thompson, Aldersgate Street .. ..	31	13	6
W. Man, Fleet Street .. ..	42	12	0
W. Egson & Co., Cannon Street .. ..	17	1	3
W. Ivbery & Sons, King Edward Street .. ..	14	11	0
W. Ches, W., Gray's Inn Road .. ..	14	12	0
W. J. Don, D. T., Spalding .. ..	25	0	0
W. Light, H., Barnsbury Road, N. .. ..	25	0	0

In a summary case no resolution was passed, and the Official Receiver will in due course wind up the estate. The Official Receiver's examination is fixed for April 12. A creditor expressed an opinion that the lowest sum for which the premises should be sold was 200*l.* It was stated that the premises had, however, been sold for 50*l.*, and the sale was effected, &c., at a valuation. Considerable dissatisfaction was expressed at this.

MARCUS LEON, 129 Grosvenor Road, Pimlico, Manufacturing Chemist.

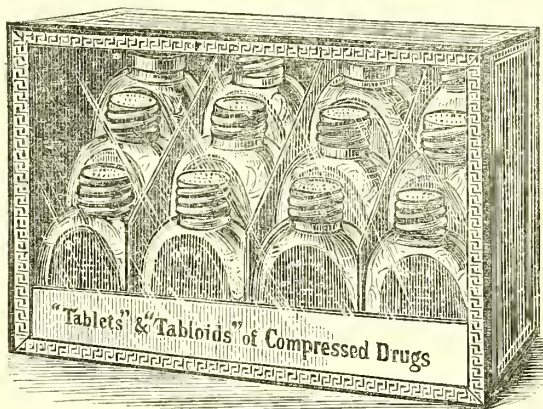
In the London Bankruptcy Court on Thursday, this debtor was referred to Mr. Registrar Hazlitt for his order of discharge. The liquidation took place in July last, and the accounts filed show gross liabilities of 1,881*l.* 17*s.* 6*d.*, and assets 51*l.* 10*s.* 4*d.*, which have, however, only realised 10*l.* 6*s.* The estate was wound up in bankruptcy. The Official Receiver reported that the bankrupt stated he had in January, 1873, carried on business as a general merchant, under the name of Max Benjamin Mann. His affairs were liquidated by arrangement, his liabilities then amounting to 46,193*l.* and assets 25,252*l.* He obtained his discharge in April, 1873. In 1879 he entered into partnership with another in Hamburg as Edward Lax and shipping agents. He left the firm in July, 1885, and is not liable in respect of it. In his public examination the bankrupt stated that he adopted the name of Marcus Leon, which was his wife's name, in 1886. He began his present business as a manufacturing chemist in November, 1886, without any capital of his own, but borrowed 550*l.* from his wife (and still owes 356*l.* of that), which she obtained by the surrender of a policy over his life, effected for her benefit under the Married Women's Property Act. The bankrupt had recently borrowed 902*l.* 17*s.* 9*d.*, all of which is still owing to her. The Official Receiver reported that the bankrupt admitted to keep such books of account as are usual and proper in his business; that for the purpose of establishing his business the bankrupt opened various agencies and engaged a brigade of 300 boys; that the loss incurred by speculation amounted to 950*l.*; and, having regard to the fact that the bankrupt had no capital of his own, "he has not to be blamed about his bankruptcy by rash and hazardous speculation"; that the bankrupt in June, 1887, handed over stock to the value of 80*l.* to two of his creditors by way of security. He is therefore, "within three months of the receiving order, unable to pay his debts as they became due, given an absolute preference to creditors." Mr. Salmond opposed the order, and the Registrar ordered a suspension for eighteen months, but on the application of Mr. Rosenthal, the bank-solicitor, withdrew that order, and granted a discharge on the condition that judgment being entered up against the bankrupt to the value of 6*d.* in the pound.

M. BRYCE BARR, chemist and druggist, has acquired the interest in the firm of Fraser & Barr, Medical Hall, N.B., by the retirement of Mr. Fraser, who will now devote all his time to his dental practice. The business is continued under the same name.

## Notes of Novelties.

### A COUNTER REQUISITE.

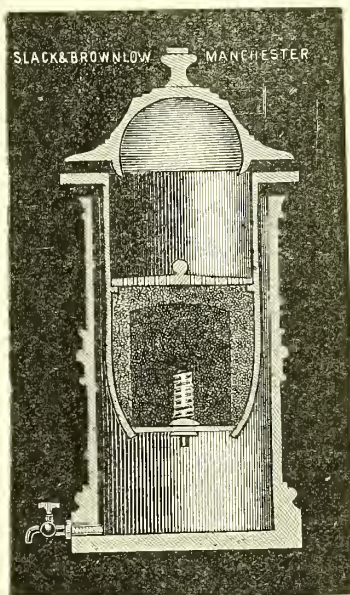
MESSRS. BURROUGHS, WELLCOME & Co. are striking out a new line by packing their "tabloids" in the manner shown in the figure. This is a 7*s.* 6*d.* case of a dozen vinaigrette bottles of selected tabloids, the whole forming not only an



attractive show-case but a complete family medicine chest. Some of the bottles in the case sell at 1*s.* 6*d.* to 2*s.*, and the others at 1*s.*, so that the lot is a profitable investment. Any selection of tabloids may be ordered in the case.

### A NEW FILTER.

THE figure represents one of the latest novelties from the factory of Messrs. Slack & Brownlow, Manchester, and they term it the "Perfect Filter." It will be seen that this filter has several advantages which are conducive to perfect filtration and frequent cleansing of the apparatus—the latter a necessity which is too little recognised. The filter proper is



removable, and contains the carbon block, which is fixed by an earthenware screw—itsself a novelty. Round the block is packed a supply of loose granular charcoal, which is kept in position by means of a perforated earthenware lid, and may be renewed at any time. The loose charcoal, therefore, does the rough work of filtration, so that the block remains clean and useful for an exceptionally long time.

TRADE "SANITAS" MARK.

# DISINFECTANTS

(FLUIDS, POWDER, SOAPS),  
NON-POISONOUS, PLEASANT, AND BEST.  
Used by more than 1,000 Boards of Health and Hospitals.

Gold Medals, Calcutta 1883-84, Paris 1885, Antwerp 1886.

THE "SANITAS" COMPANY, LIMITED,  
Letchford's Buildings, Bethnal Green, London.

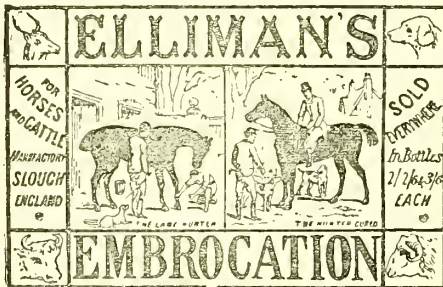
'SECURUS JUDICATOR OBIS TERRARUM'

# Apollinaris

"THE QUEEN OF TABLE WATERS."

The filling at the Apollinaris Spring during  
the year 1887 amounted to  
**11,894,000 Bottles.**

SHOW CARDS, 24x17 or 17x12,



Free to any Address.

# Woodhall Spa.

**STRONGEST BROMO-IODINE MINERAL WATER**

*Especially recommended by the Medical Profession*

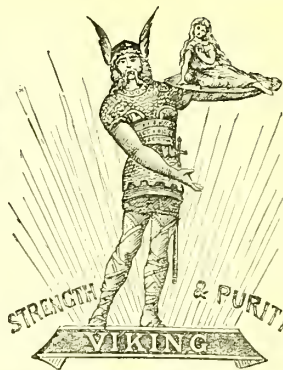
For RHEUMATISM, GOUT, and SCIATICA, Chronic  
Skin Diseases, Scrofula, Rickets, and some Diseases peculiar  
to Women.

The Woodhall Bromo-Iodine Water is now being bottled at the Spring  
and can be obtained from any Chemist, or on application direct to the  
Spa, Woodhall, Lincoln.

# Woodhall Spa.

LONDON 1873 MUMFORD'S PARIS 1875  
**PURE CRUSHED LINSEED**

17/- per cwt., bag included, 18/- in 2s and 56 lb., 20/- in 7 and 14 lb. parcel  
1 lb. tins, 5/- per doz. Best Quality. No Oil Extracted. Carefully  
Cleaned and Ground, so as to retain the natural colour of the seed without being  
hated. G. S. MUMFORD FAREINGDON ROAD, LONDON.



# THE "VIKING" ESSENCE OF BEEF AND PURE BEEF TEA IN GLASS

The "VIKING" Essences are guaran-  
teed perfectly pure. They are delicious  
to the palate, stimulating to diges-  
tion, and can be immediately assimilated.  
Most beneficial in all cases of debility.  
Price Lists, Samples and Analysis from

The Viking Food & Essence Co.  
LIMITED, [1]  
28 Hearn St., Lo

# DR. RICHTER'S PAIN EXPELLER

1/1 and 2/9, is regularly stocked by the Wholesale House

USUAL TRADE TERMS.

DEPOT FOR THE UNITED KINGDOM:

DR. RICHTER & CO., 1 Railway Place, Fenchurch St., London, E.C.

# SLACK & BROWNLOWS CANNING WORKS MANCHESTER. FILTERS

# SILICATED CARBON FILTERS

AERATED

PATENT MOVABLE BLOCK.

See Advertisement, page 21 (bottom folio)



A NEW LAMP FOR CHEMISTS  
AND DRUGGISTS' SHOPS where  
the naked light is entirely pro-  
tected. The Wenham Patent Gas  
Lamp, which has recently effected  
such a revolution in gas lighting,  
has now been adapted for both  
inside and outside shop lighting,  
&c., and any one desiring a  
perfection of light, together with  
enormous economy in gas, would  
apply, stating requirements, to  
the WENHAM CO. (Limited), 100  
Ogle Street, London, W., who  
will immediately forward special  
Illustrated Lists. Many leading  
London Houses have adopted this  
system.

# EDITORIAL NOTES.

## UNQUALIFIED MANAGERS.

THE clause requiring that all branch shops belong to  
chemists and druggists shall be under the management of a  
duly qualified assistant, added to the Pharmacy Acts Amend-  
ment Bill by Lord Milltown, has caused some considerable  
consternation among the persons who would be affected by  
it. There is reason to believe that these constitute a  
numerous class, and what evidence has come before us leads  
us to believe that branch shops are more frequently than  
under the control of unqualified assistants. Of course we use  
the term "unqualified" strictly in its legal sense. No doubt  
many of these unqualified managers are extremely compe-

perhaps they are on the average, as some of them even believe themselves to be, more reliable than their diabolical rivals. We cannot help sympathising with these threatened managers. They have been led into their present position in consequence of the laxity with which the Pharmacy Act has been administered by those to whom it is entrusted, and they naturally claim some sort of vested interest in their usurpation. But it must be remembered on the other hand that they have been acting illegally all these twenty years. All the Lords of the Law have declared that the unqualified person who conducts the sale of a scheduled poison thereby renders himself liable to a penalty under the Pharmacy Act. The effect of Lord Milltown's clause would be, not to take away the manager's personal liability in the cases where unqualified persons are employed as superintendents of branch shops, but to make it penal for chemists and druggists to employ such persons in that capacity. This would make it easier to ensure a rigid observance of the principle of the Pharmacy Act. The prosecution of assistants by the Pharmaceutical Society would have been an unpleasant duty, though we think in vindication of the Act it ought to have been undertaken; but the same objection would not lie against the prosecution of the employers, and those who believe in the possibility of getting a really effective Pharmacy Act are bound to welcome this substantial instalment of consistency on the part of the legislature.

We are sorry for the unqualified managers; they have a right to do what they can to avert their own disestablishment; and we compliment them on the energy they are displaying. But we cannot see what they can reasonably be expected to get. They have drifted into their present position, it is true; but it has been with the Pharmacy Act in force for the past twenty years, and they must see that this does not put them on a different footing to assistants who were appointed by new legislation. For, as we have shown, Lord Milltown's clause, though it certainly concerns them, is directed against their employers, and not against them. To place them on the register without examination, or to grant them a modified examination, would be grossly unfair to all other unqualified assistants who might not happen to occupy that position of managers of branches, and would be still more unfair to assistants who have qualified by regular examination. Their proper course, if they wish to retain such positions as those which they at present occupy, is to prepare for examination with the least possible delay.

ABUSES IN HOSPITALS.

BEFORE the next Hospital Sunday collection comes round one of the authorities of those institutions ought to either answer the charges which have been brought against them, or set about reforming the abuses alleged to exist. Just six months ago, when the winter session of the medical schools was about commencing, appeared a novel with a purpose, by an anonymous author, under the title of "St. Bernard's." The series of needless examinations of, and operations on, patients; of the therapeutic experiments and clinical lectures, for the sake of which treatment is callously retarded; of painful surgical demonstrations, unnecessary and, indeed, injurious to the patients; of students' blunders kindly covered up by their teachers for the credit of the hospital—these and other like horrors, woven together into a romance, excited a good deal of indignation of two kinds. On the one side the subscribers to the hospitals were inclined to ask whether their money was not being put to improper uses, while, on the other hand, the medical journals and the apologists for the medical profession treated the book with the con-

temptuous sneer which they are always ready to bestow on sentimental faddists, as they regard any who venture to criticise their proceedings or their methods.

The form of a romance was, perhaps, hardly the one best adapted to enlist the sympathies of the more serious investigators into our hospital system. One critic very reasonably asked, "How much is romance and reality in this remarkable book?" and it was clear that no one could base an argument on the authority of a romance, assured though he might be that the story was based on fact. It must always remain doubtful whether the particular assertion adopted might turn out to be basis or superstructure. Now, however, this response is no longer available to the hospital defenders. The author of "St. Bernard's," in a new book, entitled "Dying Scientifically," has published what he calls a key to his earlier work, in which, by a series of quotations from medical journals, clinical lectures, and the speeches of high authorities in the medical world, he drives home his attack. "Esculapius Scalpel," the assumed name of the writer, who still retains his anonymity, tells us he has not quarrelled with his profession nor with his Alma Mater. He loves his daily work as a medical man in large practice, and has no desire to earn his bread by any better business. He declares that he is entirely orthodox, and daily sends his patients their usual six ounces of regulation physic, and he disclaims fraternal association with homœopathic, anti-vaccinationist, or hydropathic heretics. But his orthodoxy is evidently not so rigid as to interrupt his view of the just proportions between the profession and the public in which the benefits conferred by the public hospitals of this country should be divided.

Among the hundred or more justificatory extracts collected in "Dying Scientifically" there are plenty of instances of what most subscribers to hospitals will regard as a gross abuse of the opportunities which those institutions offer. Here for instance, is the record of a professor of materia medica, who reports on a series of experimental administrations of nitroglycerine, ethyl nitrite, sodium nitrite, cobalt yellow, and other potent drugs on fifteen persons. In the discussion on this paper the professor said that none of his observations had any bearing on disease, though the subjects of his experiments were not always in perfect health. That seems to mean that he had tried the experiments on patients who came under his power, without any view of curing them of the particular disease for which they were being ostensibly treated. Here is a quotation from Dr. Ringer's Handbook of Therapeutics:—"Dr. Rickards and I gave to an habitual drunkard, making him 'dead drunk,' 12 oz. of good brandy in a single dose without the smallest reduction of temperature, . . . In a boy aged ten who had never in his life before taken alcohol in any form, I found through a large number of observations a constant and decided reduction of temperature." Dr. Neudörfer, in a treatise on the "Surgical Treatment of Wounds," says, "I am in a position to assert that out of the hundreds of amputations of limbs and resections of large joints performed in the last few years a considerable percentage have been undertaken only to glorify Lister's method, or in consequence of its influence, and might be omitted without any detriment to the patient." A medical journal in 1882 reports a case of hysterical catalepsy. The doctor says, "In the evening the soles of her feet were tickled and pricked with a pin; this was followed by the convulsive movements above described; she shrieked and fell back with eyes open, and was conscious. Next day she was in much the same condition. Pricking the soles of the feet, &c., produced a fit. On the following day the convulsions could not be so easily induced." Here is an extract from a clinical lecture reported in the *Brit. Med.*

*Journ.* of January 7, 1882. The lecturer says of the patient, "He was in a miserable condition from pain and irritation. The eruption had been out about ten days, and it affected the mucous membrane of his mouth as well as the skin. You may remember that we kept him in bed for a few days before we used the magician's wand, in order that all might see that there was no natural tendency to amelioration." Here is an almost incredible record of a day's treatment of a patient who died of "acute rheumatism with hyperpyrexia" on July 12, 1885. The full account was given in the *Lancet*: "1.30 A.M., bath at 50° F.; complete coma; 1.35, enema of brandy; 1.45, ditto; 2.16, taken from bath to bed, dried, and transferred to another bed; 2.38, enema of hot coffee; 3, another; 3.30, hypodermic injection of ether; 7, another; 7.30, enema of 30 grains of quinine, and ice-bag to spine and head; 8.30, another hypodermic injection of ether; 9.30, severe vomiting, stethoscoped, mustard-plasters applied to chest and turpentine stupes over bases of lungs; 10, hypodermic injection of ether; 10.30, another iced bath; 11.10, hypodermic injection of ether; 11.25, enema of brandy; 11.35, taken out of bath; 11.40, brandy and beef tea by stomach pump; 1.30 P.M., injection of ether; 2, another; 3.10, stethoscoped and percussed; 3.20, apomorphia, subcutaneously injected, followed by vomiting, and at 3.50 by death." To say that the poor wretch died of "acute rheumatism with hyperpyrexia" may be the correct medical term to use under the circumstances, but it is hardly the expression an ordinary Englishman would use for it. A steam-engine could not stand such a course of treatment.

We need not add to the instances we have quoted. Those given in "Dying Scientifically" could be matched in the medical journals almost any week, and the question arises whether the system should be permitted to continue. The writer of this book quotes from several medical authorities to show that they deliberately claim the right of using the hospitals and the patients who come to them first of all for the purposes of education. And they would go even further. In 1881 the Metropolitan Counties Branch of the Medical Association discussed whether they could not utilise the workhouse infirmaries for clinical teaching; but one speaker said, "No House of Commons would allow it; the attempt would be opposed by all the Radicals." These frank advocates of the medical side know very well that there is no chance for their cynical views if the question for and against them is openly stated. Moreover, there is no serious danger that medical education would be injuriously interfered with by the triumph of humanitarianism. The author of "Dying Scientifically" gives proof that students can take their diplomas with honours without knowing how to recognise a case of measles, and it is hardly doubtful whether a showy familiarity with the rarer exhibitions of disease can suffice as a substitute for such elementary knowledge.

**Realising Bankrupts' Businesses.** The case of Mr. Rippon, the Islington chemist, whose first meeting of creditors is reported in our columns, affords another illustration of the mischief caused to creditors' interests by the too hasty realisation of the debtors' estates. In this case, according to the views of the creditors, there was a well-established business in a good position for trade, and it was confidently affirmed that, had sufficient notice been given, from 200*l.* to 300*l.* could have been obtained for it. The Official Receiver, however, has accepted an offer of 50*l.* for the lease, and the whole value of the business itself goes by the board, and with it the prospects of the creditors getting a dividend, which in such a case as this might have been reasonably expected. Surely the creditors have ground to be indignant at this official disregard of their interests, and at the waste of their property; and steps should be taken to

forcibly impress upon bankruptcy officials the imperative duty of studying trade-creditors' wishes in matters of such importance to them.

\* \*

Our German correspondent has called attention to the remarks which Professor Liebreich recently made at a meeting of the Berlin Physiological Society on the action of erythrophloëine as a local anæsthetic. The property which cocaine possesses is no means confined to itself—indeed, there are a number of substances which, when injected subcutaneously, give rise to a localised anæsthesia in the immediate neighbourhood of the place where they are injected. Antipyrin, sal-ammiac, some tannates, resorcin, ferric chloride, and other substances have this action, although there is neither chemical nor physiological similarity between them. They possess, however, this property in common, that they all have a corvive action on the tissues—in other words, induce a kind of alteration of molecular structure. Most alkaloids, in the cases where they possess a local anæsthetic action, act in the same way, as, for instance, erythrophloëine; but cocaine is a solitary exception to the rule, inasmuch as it is a local anæsthetic, but does not corrode the tissues. When applied subcutaneously to man, the above substances either produce no localised anæsthesia, or one which is very imperfect.

## Personalities.

MR. F. J. RYALL has opened a chemist's business at 40 Portland Road, Stoke, Devonport.

PROFESSOR TILDEN, F.R.S., of Mason's College, will this year be the president of the chemistry section of the British Association.

THE will and two codicils, dated respectively August 31, 1887, September 9, 1887, and December 22, 1887, of Mr. Francis Jonathan Clarke, J.P., chemist and druggist, and proprietor of Clarke's Blood Mixture, of Bracebridge Hill, Lincoln, who died at Bournemouth on January 28 last as been proved at Lincoln; the gross personalty being sworn at 27,441*l.* 0*s.* 6*d.* The testator leaves an annuity of 100 to his mother, and one of 300*l.* to his wife. He leaves 200 to his friend and executor, Alderman Wm. Beard, of Lincoln, 50*l.* to the Very Rev. Canon Croft, 200*l.* to his clerk Frederick Brown, 100*l.* to his clerk Henry Passey, and a sum not exceeding 200*l.* to be distributed among his staff, and his executors may see fit. The executors, Wm. Beard, Thomas Platt, and Frederick Brown, are to conduct his business in Lincoln and elsewhere, and are empowered to continue the deceased's weekly payments to certain poor persons as they shall see fit. The whole residue of his real and personal estate is left in trust to be divided equally between his children, who, being infants, he desires shall be brought up in the tenets of the Roman Catholic faith, which they at present profess.

## Trade Notes.

MR. OGLESBY, chemist, of Barnsley, has secured the contract of the Barnsley Board of Guardians for drugs and chemicals.

MESSRS. KALTENBACH & SCHMITZ, of 46 New Bridge Street, E.C., and Liverpool, have opened at Hamburg a depot for the sale of Mediterranean and Cuban sponges to wholesale dealers in Germany.

MESSRS. WILLIAM EDWARDS & SON'S catalogue of patent medicines, sundries, &c., gives net prices throughout. It was inadvertently stated in a recent note that such prices are confined to the patent medicine part.

THE BARCELONA EXHIBITION.—Out of 30,000 exhibitors who have taken space at this exhibition only 80 are English. The English ambassador at Madrid reports to the Foreign Office that the opening will probably have to be postponed till the first week in May on account of the unfinished state of the exhibition.

BENTLEY TESTIMONIAL FUND.

We have received the following from the Honorary Secretary:—

DEAR SIR,—I beg to enclose a first list of subscriptions to the Bentley Testimonial Fund. I shall be much obliged if you will make it convenient to publish the list in your issue of this week.

My appeal for contributions has only been made to prizemen and to those who have been in some way connected with the profession, and it is not proposed to invite by circular all chemists and druggists throughout the country to subscribe. It is, therefore, very possible that some (e.g. old pupils and others) who might wish to contribute have not been invited to do so.

I will, therefore, ask you to be good enough to insert a paragraph with the list asking those who are interested in the matter and who have not been already addressed to send subscriptions to me at 17 Bloomsbury Square, W.C.

I am, dear sir, yours faithfully,

S. PLOWMAN, Hon. Sec.

March 22.

Table with 3 columns of names and amounts in £ s. d. format. Includes names like Evans, Gwilym; Farr, E. H.; Farries, Thomas; Fletcher, John; Flux, William; Ford, Charles; Foster, William; Fowler, William; Francis, G. Balt; Frazer, Daniel; Gale, Samuel; Gerrard, Alfred W.; Gibson, Adam; Giles, R. W.; Gostling, Thomas P.; Green, John; Green, Professor; Greenish, Thomas; Groves, Thomas B.; Gulliver & Sons; Hampson, Robert; Hanbury, F. J.; Hatfield, G. W.; Hill, Arthur B.; Hills, Thomas Hyde; Hills, Walter; Hodder, George W.; Holmes, E. M.; Hooper, David; Hopkin, William King; Icke, H. S.; Ince, Joseph; Jackson, William; Johnson, Frederick E.; Kinninmont, Alexander; Lansdown, George; Lindford, John S.; Long, Henry; Luff, Arthur Pearson; McDiarmid, Fraser; Marsh, Edward; Martin, N. H.; Martindale, William; Mathews, J. and H.; Millard, E. J.; Morrall, E. E.; Morris, Daniel; Moss, John; Naylor, W. A. H.; Nesbit, John; Newsholme, G. T. W.; "Old Student"; Parker, Robert H.; Parkinson, Robert; Passmore, Francis; Paul, Dr. B. H.; Perry, George E.; Phillips, A. J.; Plowman, Sidney; Poole, Weston; Radley, William Valentine; Ranken, Charles; Ransom, Francis; Redwood, Professor; Reynolds, Richard; Reynolds, Richard F.; Rimington, George; Robbins, John; Roberts, Roderick; Robinson, R. A.; Rossiter, Frederick; Sandford, George W.; Savage, W. D. & Son; Schacht, George Frederick; Sharpe, Leonard George; Sharpe, George Y.; Shenstone, James C.; Shenstone, William A.; Short, Frederick W.; Silverlock, H.; Smith, Walter Henry; Southall Brothers & Barclay; Spearing, James; Squire, Alfred Herbert; Squire, P. W.; Stacey, Henry G.; Stocken, James; Storrar, David; Symes, Charles; Symons, William Henry; Tanner, Alfred Edward; Taylor, George Spratt; Thomas, Harry Alma; Thompson, Frederic; Thresh, Dr. J. C.; Tilden, Professor W. A.; Tingle, J. Grantley; Trembath, Henry; Tull, Frederick Charles; Turner, Charles E.; Warren, William; Warwick, Frederick W.; Watson, T. Donald; Watts, John M. A.; Webb, E. A.; White, Edmund; Whitfield, Jobn; Wigg, Henry J.; Wiggan, John C.; Williams, John A. H.; Williams, William Lloyd; Wood, Edward; Wood, C. H.; Woolley, Edward J.; Woolley, George S.; Woolley, Hermann; Wright, Layman & Umney; Wright, Alfred; Wright, Robert; Wyles, William; Wyles & Co.; Young, Edward; Young, James Robertson; Young, R. Fisher.

## Legal Reports.

### EXPORTING CHLORIDE OF LIME.

In the Queen's Bench Division on Saturday, the case of McIlwraith & Co. v. McEacharn & Co. was tried by Mr. Justice Manisty without a jury. It was a dispute with regard to the packing of some chloride of lime, the action being brought for alleged breach of contract.

Mr. Fox appeared for plaintiffs, and Mr. Thomas Terrel for the defendant.

According to counsel's opening statement, both parties carry on business in London. By a contract dated May 1, 1886, the defendants were to deliver 30 tons of chloride of lime in strong hardwood casks, f.o.b. in London, and sufficiently packed for an Australian voyage. When, however, the ship carrying it arrived at Rockhampton it was found that the chloride of lime had burst the casks; hence the present action. It appeared that when the goods arrived in London from Lancashire, where it was manufactured, the second mate of the *Advancement*, which was the sailing-ship by which it was to go to Rockhampton, reported "old casks," and the defendants, to enable plaintiffs to get a clean bill of lading, gave them an indemnity, undertaking, in consideration of their accepting receipt by *Advancement*, to pay on demand any claim that might arise, and to indemnify Messrs. McIlwraith & Co. against all consequences. The plaintiffs attached a good deal of importance to that document, as also to an admission on the part of the defendants that the chloride of lime was not sufficiently packed for a voyage to Australia by a sailing-vessel. The damages, which were originally laid by Messrs. McIlwraith at 100%, were ultimately, in the event of liability, agreed at 50% 10s.

The plaintiff, having proved his order of May 1, was cross-examined by Mr. Terrel. He said he had not had any experience of the properties of chloride of lime before this occasion. He had shipped other parcels since. He was aware that it is a substance that is particularly deteriorated by moisture, and which, when it becomes heated, gives off chlorine gas, which he believed might rapidly destroy the hoops of the casks, causing them to burst open. He had himself shipped chloride of lime to Sydney. He believed that chloride of lime made in cold weather was liable, when it became hot, to give off chlorine gas and burst the casks.

Did you see these casks which are in dispute in this action?—No.

Do you know what hardwood casks are as the term is used in the trade?—Yes.

Hardwood casks are made out of sugar-cask staves that have been used and hooped together again?—Yes.

Do you know that hardwood casks are not air-tight?—No, I was not aware of that.

Have you ever seen a hardwood cask that was air-tight?—Well, I imagine petroleum casks are hardwood.

Do you mean to say that petroleum casks are recognised in the chloride of lime trade as hardwood casks?—I think so—yes.

Are they not always specified as petroleum barrels?—I suppose they would be, but none the less are they hardwood.

Are even petroleum barrels air-tight?—As I told you, we shipped 15 tons in petroleum casks, and that arrived in splendid condition.

Did you buy that as packed in petroleum barrels?—Yes.

And you knew they were something different to hardwood casks?—In point of size.

And in tightness?—That I don't know.

Now, with the exception of that other 15 tons that you mentioned, have you had any other experience?—Oh, yes.

Have you ever kept packages for a considerable time?—No; we simply buy and ship out.

Don't you know that it is usual to consign chloride of lime by steamships when it is going any distance, because of the dangers of keeping it?—I know that it would be impossible to send it direct to Queensland by steamer.

Then you would pack them in tin or lead lined cases, would you not?—Yes.

And when you have them thus you specify them, don't you?—Yes.

And when you buy in tin or lead lined packages you get a good deal more?—Yes.

Would you have expected to buy chloride of lime at the time this contract was made at 6% 10s. 6d. a ton f.o.b. London packed in tin or lead lined cases?—No.

The difference in price would have been considerable?—Yes.

Re-examined: Had you any notice or knowledge at that time that to pack in hardwood casks was other than a proper method of packing the chloride of lime?—None whatever.

And you stipulated in your contract that the goods were to be sufficiently packed?—Yes.

Now, when you give the name of a ship, is it usual to describe it as being a steamship or otherwise?—No, it is not. Sometimes they put "S.S." after its name.

Mr. Edward Huxley, plaintiffs' buyer, said he made the order on May 1. It was not usual in such an order to specify whether the goods were to be shipped by steam or sailing ship. Goods were more frequently sent to Australia by sailing-vessels than steamships. Before chloride of lime was sent out to Australia he received notice from the mate that the casks were old, and in consequence he sent the defendants the form of indemnity dated May 25. At that time there were no steamers plying between Liverpool and Queensland. Chloride of lime was shipped in sailing-vessels to Australia. He could call to mind an instance. Some was sent out in the *Ellis* last year. She sailed, he believed, some time in June. The plaintiffs shipped it.

Cross-examined by Mr. Terrel: The duration of the *Ellis*'s voyage was 142 days. The 30 tons went by the only line of ships that will take chloride of lime.

Do not the others refuse to take it because, no matter what it is packed, the packets sometimes burst?—They have never given us the reason.

Have you ever bought chloride of lime in tin-lined or lead-lined packages?—Since the *Advancement* shipment we have.

Is that because you have found out that it would not go in hardwood casks?—It was principally at the suggestion of the people who sold us the goods.

You paid 6% 12s. 6d. for chloride of lime in hardwood casks; how much more a ton did you pay for it in tin-lined packets?—Roughly, say 3% more.

You have since found out that hardwood casks would not do for an Australian voyage?—Judging from the rest of the *Advancement* shipment.

This concluded the plaintiffs' case.

Mr. Terrel said his contention would be that the plaintiffs sent the goods by a sailing-vessel at their own risk, and that they were packed in strong hardwood casks as specified. With regard to the letter of indemnity, they said that the meaning of it simply was that, in consideration of Messrs. McIlwraith accepting the mate's receipt with the words "old casks" on it, they would indemnify them against all consequences of their so doing.

Mr. C. N. Haake, F.I.C., gave evidence as to the properties of chloride of lime, as already suggested by counsel's cross-examination.

Cross-examined by Mr. Fox, witness said it was not absolutely certain that chloride of lime, even if packed in tin-lined packages, would arrive in condition.

It is only a question of degree?—No, not exactly.

Do I understand, if packed in hardwood casks, they are not necessarily burst?—If time were given, I am of opinion they must, and even under ordinary conditions.

Re-examined: Is the result of your opinion that if the casks be tin or lead lined they have a better chance?—Yes.

Mr. Alfred Edward Smith, manager for Messrs. Hutchinson & Co., of Widnes, chloride of lime manufacturers, said he had been in their employ for twenty years. They made and packed about 60 tons a week on the average. His firm actually manufactured the chloride of lime in question. The casks called hardwood were well known in the trade. When hardwood casks were specified a manufacturer knew exactly what he was to supply. A hardwood cask is practically an old sugar hogshead rebuilt. It was not an air-tight package. He recollected the particular lot of goods being sent out; they were packed in the usual hardwood casks, and were well packed.

In what vessels is chloride of lime usually sent?—Nearly all our trade is to America by steamer.

Does it decompose rapidly under certain conditions?—  
 Yes. Under the conditions of a long journey in the hold of  
 a vessel to Rockhampton, what would you expect of hard-  
 wood casks filled with chloride of lime?—Packages that  
 remained in our works for some months during the  
 summer were invariably found to burst. The hoops become  
 loose and the cask gives way.  
 Does moisture affect it?—Yes. Temperature particularly,  
 that, is the mischief.  
 When you keep it in your place, in what condition do you  
 keep it?—It is very seldom that we store it in the ware-  
 houses.  
 Are petroleum barrels different packets to hardwood  
 casks?—Yes.  
 Are casks examined by Mr. Fox: Your chief experience is in  
 shipments to America, is it not?—Yes, most of our stuff goes  
 to America.  
 Can you tell me of any steamer that will carry this stuff to  
 Australia?—No.  
 Of Queensland?—No.  
 Do you know that the only regular line of steamers to  
 Queensland refused to take it?—No.  
 Do you know where Rockhampton was?—No.  
 Do you think it was in America?—No, I did not know  
 it was.  
 What you did not know these goods were for Australia  
 in 1867?—No.  
 Justice Manisty: Hardwood casks are never lined, are  
 they?—No, unless it is with paper.  
 Thomas Clarkson, the secretary to Golding, Davis &  
 Co. (limited), of Widnes, was the next witness. He gave  
 evidence bearing out generally that of Mr. Smith.  
 Counsel on both sides having addressed the Court,  
 Justice Manisty gave judgment. He accepted the  
 construction which was put upon the indemnity by the  
 defendants, and upon the evidence he had come to the conclu-  
 sion that the chloride of lime was packed as well as it could  
 in hardwood casks, such as were ordered. The defendants  
 made an ill-advised admission with regard to the stuff  
 being sufficiently packed for a voyage to Australia in a  
 steam-vessel, but he must take it, he supposed, that they did  
 not mean to admit themselves out of Court, and his judgment  
 was, therefore, for the defendants, with costs.

SULPHATE OF AMMONIA SHIPMENT.

The Queen's Bench Division of the High Court of  
 Justice, on March 17, the case of Smith v. Maud came before  
 Justice Hawkins and a jury. The plaintiff, Mr. John  
 Smith, of Leadenhall Street, sued Messrs. Maud & Co., of  
 London, to recover 262*l.* for breach of contract in non-  
 delivery of a quantity of sulphate of ammonia. The de-  
 fendant denied the existence of a contract, and counter-  
 claimed for 17*l.* 16*s.* 1*d.* for some casks supplied.  
 Mr. Kemp, Q.C., and Mr. Bremner appeared for the  
 plaintiff; Mr. Winch, Q.C., and Mr. Fillan for the de-  
 fendants.  
 It appeared from the evidence for the plaintiff that in  
 1867, the defendants were employed to provide casks  
 containing a quantity of sulphate of ammonia, and to convey about  
 seven-eight puncheons of the sulphate by lighter to the  
 India Docks for shipment to Demerara. The defendants  
 filled the casks, and headed them up when filled with  
 ammonia; but while they were being conveyed to the docks  
 a large one sank, the plaintiff alleged, through the negligence  
 of the defendants' servants. A large portion of the sulphate  
 of ammonia was washed away and the remainder rendered  
 impure. The plaintiff, therefore, brought this action to  
 recover 262*l.*, the value of the goods.  
 Maud, the defendant, denied that the accident was  
 due through the negligence of his servants, and asserted  
 that the plaintiff ordered the casks of him, and authorised  
 him to employ a man, named Creed, to lighter the ammonia,  
 and he therefore denied that the lighterman was responsible  
 for the damage. In cross-examination he admitted that  
 Maud was insolvent; also that Creed made out the account  
 of lighterage to him, and that plaintiff's name did not  
 appear on the invoice.  
 The jury found a verdict for the plaintiff for the full

amount claimed, and for the defendants on the counter-  
 claim.

SEQUEL TO A "HOP BITTERS" CASE.

AT the Bradford County Court on Tuesday Mr. J. R.  
 Armistead, botanical chemist, Lowerhead Row, Leeds, sued  
 Messrs. Humphries & Co., manufacturing chemists, Low  
 Moor, for the sum of 3*l.* 19*s.*, being the amount he had  
 paid to the Hop Bitters Company for selling an article,  
 supplied by the defendants, which was alleged to be an in-  
 fringement of the patent rights of the Hop Bitters Company.  
 The case for the plaintiff was that in November, 1866, he  
 was induced to purchase from Messrs. Humphries & Co. a  
 dozen bottles of hop bitters, on their guaranteeing that the  
 article was not an infringement of the rights of the Hop  
 Bitters Company. In consequence of having sold the de-  
 fendants' bottles, however, the Hop Bitters Company com-  
 menced legal proceedings against him in October last, with  
 the result that he tendered an apology and paid their claim  
 for damages. The plaintiff therefore sought to recover the  
 amount from the defendants, on whose behalf it was con-  
 tended that they had not copied or infringed the trade-mark  
 of the Hop Bitters Company, their bottles simply being  
 labelled "Hop Tonic Bitters," with their own trade-mark,  
 name, and address, while the style of the bottle was the same  
 as that adopted by them before the date of the company's  
 patent.  
 His Honour (Mr. Gates, Q.C.) said the plaintiff had failed  
 to prove that he was compelled to pay damages to the Hop  
 Bitters Company, and he doubted whether even the unwary  
 could be taken in by the defendants' bottles, and there was  
 no evidence as to which was "first in the field." He did  
 not think the plaintiff had shown that he was justified in  
 paying the claim of the Hop Bitters Company, and therefore  
 he could not recover the amount from the defendants. A  
 verdict for the defendants, with costs, was then entered.

POISONING CASES.—Poisoning with camphor is somewhat  
 unusual. We hear by the last mail of a fatal case in  
 Australia, the victim being a young barmaid at Williams-  
 town. Mr. C. R. Blackett, Government analytical chemist,  
 deposed at the inquest that he had made an examination of  
 the contents of the stomach. He had found an odour of  
 camphor, but not more than would arise from the taking of  
 one or two grains. He could discover no other poison. Dr.  
 Honman, who attended the deceased at the time of her  
 death, deposed that he believed the cause of death was  
 camphor poisoning, and the lady with whom deceased had  
 been employed stated that she had seen her chewing  
 camphor. Death was immediately due to congestion of the  
 brain, produced by the camphor.—At an inquest held at  
 South Hornsey last week by Dr. D. Thomas on the body of a  
 licensed victualler's manager, who had died from the effects  
 of an overdose of chlorodyne, the Coroner remarked that it  
 was a patent medicine containing, amongst other things,  
 morphia, prussic acid, Indian hemp, treacle, and peppermint.  
 A medical man who gave evidence said it was a good all-  
 round medicine if used carefully, otherwise it was very  
 dangerous. Deceased, who had regarded chlorodyne as a  
 panacea for all human ills, had taken 240 drops, bringing on  
 paralysis of the heart.—On Monday morning an engine-  
 keeper at Pumperston Dilworks, Linlithgowshire, fell into a  
 pond containing liquid ammonia, and the effect of the liquid  
 was such that, although he was immediately taken out medical  
 aid was of no avail.—Mr. Edward Fayrer, a retired medical  
 practitioner, formerly in practice at Droitwich, died on Satur-  
 day at Portsmouth from the effects of an overdose of mor-  
 phia taken to procure sleep.—On Monday, Rebecca Marshall  
 (19), servant to Mr. E. B. S. Perkins, L.S.A., Exeter, com-  
 mitted suicide by drinking a quantity of methylated  
 liniment of aconite which she had taken from her master's  
 surgery. Every effort was made by Mr. Perkins, assisted  
 by Mr. Alfred Perkins, for the girl's recovery, but she died  
 in a short time after the poison was taken.—On Satur-  
 day Dr. Danford Thomas held an inquiry relative to the  
 death of Louisa Lloyd, who had for some time been weak  
 and debilitated, and was despondent in consequence. Her  
 daughter had bought some carbolic acid for inhaling pur-  
 poses, and Mrs. Lloyd, having got possession of this bottle,  
 swallowed its contents.

## 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., March 22.

**E**XTRME quietness reigns in nearly all departments of the drug and chemical trades. The severe weather to some extent checked business at the beginning of the week, and little is now done in anticipation of the Easter holidays. The principal changes in the chemical market are a slight reduction in quinine, and a further fall in the value of quick-silver, and, consequently, of mercurials. Camphor is also receding. Opium and its derivatives very flat. At the dry-saltery sales a slight advance occurred in shellac, and this has since been accentuated, but turmeric continues to decline. Spices flat and mostly lower, pepper excepted, which is firm or dearer. The drug sales passed off with great languor, and the alterations to be recorded are unimportant. Senna sold above valuations, and fine vanilla beans are somewhat dearer, but common varieties command less money. Cascarella, Guinea grains, nux vomica, and balsam copaiba, are all in a very firm position. Saffron is also scarce and dear, and French lavender and otto of rose are firmly held. Codliver oil has been very considerably brought down by bear speculators; insect-flowers, cardamoms, gamboge, ipecacuanha, and gum benjamin are more or less weaker. Musk is almost unchanged.

**E. MERCK v. LEHN & FINK: THE DEFENDANTS VICTORIOUS**—We have received a telegram from New York, dated March 21, announcing that the grand jury upon whom devolved the duty of considering whether the action of Mr. E. Merck, of Darmstadt, against Messrs. Lehn & Fink, of New York, should or should not be sent for trial have unanimously dismissed the case against the defendants. It will be remembered that the New York police magistrate decided that there was sufficient evidence to send the case—which was a criminal action for counterfeiting the plaintiff's labels—to the grand jury. The action has now been finally decided against Mr. E. Merck.

**IMPORTATION OF PHARMACEUTICAL PREPARATIONS INTO JAPAN.**—Important alterations are reported to have been made in the regulations affecting the importation of pharmaceutical articles into Japan. Hitherto all medicinal drugs and preparations brought into that country have been subject to examination by the Japanese Government, and, if found to answer the tests, were stamped with an official seal as "fit for medical use." Japanese subjects were not allowed to sell any articles except those bearing that seal, and all others were therefore practically unsaleable. This regulation has now been abolished, and in future all preparations made according to the Japanese Pharmacopœia will receive the official seal, while upon all other pharmaceutical preparations it will be merely stated according to what official formula they have been prepared. This is intended to have the effect of creating upon native buyers the impression that only those preparations made according to the requirements of the Japanese Pharmacopœia are genuine. A copy of the Latin edition of this Pharmacopœia has been supplied to each importer of foreign drugs and chemicals.

**THE SOUDAN TRADE.**—The British Consul at Suakin strongly urges the Government to allow the resumption of commercial relations with the Soudan. The natives are said to be anxious to be again permitted to trade freely, and if the obstacles now raised on the British side were removed, our Consul anticipates that the products of equatorial Africa would soon again be brought to our markets. In 1883 about 57,000*l.* worth of gum were shipped from Suakin, in 1886 only 1,600*l.*, and last year about 5,000*l.*

**ACID (CITRIC)** unchanged in price. A fair inquiry for American account is reported. From 1*s.* 6½*d.* to 6¾*d.* per lb. would be the nearest quotation.

**ACID (OXALIC).**—There is no improvement in the price, which remains at 3½*d.* to 3¾*d.* per lb., but a slightly better business is reported at these rates. *Sal Acetos* quiet, 5½*d.* to 5¾*d.* per lb.

**ACID (TARTARIC)** very dull. *English*, 1*s.* 6½*d.*; *foreign*, 1*s.* 6*d.* to 1*s.* 6¾*d.* per lb.

**ALOES.**—At to-day's auctions 78 cases *Cape aloes* were offered, of which 48 were sold at unchanged prices—*s.* for good bright hard, 21*s.* 6*d.* to 20*s.* 6*d.* for slightly dross; and from 20*s.* down to 16*s.* for fair, partly drossy, to dull. The best lots were bought in at 25*s.* per cwt., nominally. *Curacao*—108 packages, mostly bought in, good red per, at the nominal price of 100*s.*; some common coarse *Cap aloes* sold at 20*s.* per cwt. Several parcels of *East Indian aloes* were offered, among them 35 boxes of new importation, which sold at 6*l.* 2*s.* 6*d.* to 6*l.* 5*s.* for good well-flavoured red, and 6*l.* 5*s.* per cwt. for darker quality. Hard hepatic aloes in skins sold at 80*s.* per cwt.

**ALUM.**—A very good business has been done at 6*l.* 10*s.* for ground and 5*l.* 5*s.* for lump alum.

**AMBERGRIS.**—Several parcels were offered, but nothing of fine quality. For one tin half dark, half pale and spurious, from New Zealand, an offer of 40*s.* per oz. was refused.

**AMMONIA SALTS.**—*Carbonate* does not improve, 4*d.* per lb., less a heavy discount, still remaining the quotation. *Sal ammoniac* better at 34*s.* per cwt. for first and 32*s.* per cwt. for second quality. *Sulphate* has become easier all round, and now quotes as follows:—London, Beckton, 12 5*s.*; grey, 24 per cent., 12*l.* 3*s.* 9*d.*; Hull, spot, 11*l.* 17*s.* 6*d.* to 11*l.* 18*s.* 9*d.*; Leith, spot, 11*l.* 15*s.* to 11*l.* 17*s.* 6*d.* per ton. The export demand, especially for France and Germany, remains very quiet. At the current quotations buyers are very scarce, and the prospects of a large spring demand, which was so confidently anticipated by some, appear to be more remote than ever.

**ANISE.**—*Star anise* quiet. A parcel of good well-flavoured, but broken, seed was bought in at 85*s.* per cwt. For 48 cases spurious star anise (Japanese) 25*s.* per cwt. was suggested as the price, the lot being bought in at 30*s.* per cwt. From Valparaiso we have just received a consignment of 78 packages Chilean anise, a variety which is not so frequently met with on our market now as it was some years ago.

**ANNATTO** remains without improvement. Rather dark new Ceylon seed is held at 2½*d.* per lb., 2¼*d.* being offered, while for another lot an offer of 1¾*d.* per lb. was declined. *Roll annatto* neglected; good bright *Pará* bought at 1*s.* 6*d.* to 1*s.* 8*d.* per lb.

**ARSENIC.**—Again dearer at 12*s.* to 12*s.* 6*d.* for white powder on the spot.

**BALSAMS.**—*Copaiba* remains extremely firm. Two lots were shown to-day, but were taken out; we believe at 2*s.* 3*d.* per lb. is asked for good bright *Maranhama*, unaltered at 4*s.* 6*d.* per lb., with very little demand. *Free casks liquid Storax* sold without reserve at 50*s.* per cwt.

**BROMIDE OF POTASSIUM.**—Firm at 1*s.* 6*d.* to 1 7*d.* per lb. There seems no indication of any alteration in price.

**BUCHU.**—Round leaves can be bought very cheaply indeed; a parcel of good green leaves, slightly stalky sold at 3*d.* to 4*d.* per lb., while for dull and stained leaves 2*d.* was accepted.

**CALUMBA.**—Large quantities, mostly of inferior quality, are still being offered, and meet with very little inquiry. Fair yellowish native picked root, sold at 21*s.* to 24*s.*; Chinese darkish, slightly wormy, at 13*s.* to 15*s.* per cwt. or fairly good washed root, 35*s.* per cwt. is still required.

**CAMPHOR.**—There is very little doing either in *crude* or *refined*, and prices remain at our last quotations. It is said that 72*s.* 6*d.* per cwt. was accepted for Japan camphor some days ago.

**CANTHARIDES.**—*Chinese* flies remain neglected and cheap. Of 9 barrels *Russian* cantharides shown at to-day's auc-



of good quality sold at 5s. 6d. per lb. The rest was in at 5s. 9d. to 6s. per lb.

**CARDAMOMS.**—At to-day's auctions 230 packages were offered, the smaller part of which sold at a decided, if somewhat irregular, decline, generally from 2d. to 3d. cheaper. Several cases *Mangalore* went very cheaply, fair smooth pale, at 2s. to 2s. 1d. per lb. *Ceylon Malabar* realised: medium to bold good pale, 1s. 11d.; ditto, but smaller, 1s. 8d. to 1s. 7d.; fair to good medium yellow, 1s. 6d. to 1s. 7d.; ditto, 1s. 4d.; brownish and partly specky, 1s. 3d.; ditto dull and warty to specky, 11½d. to 9½d.; very small and mouldy, 6d. *Mysore*, fine pale smooth bleached, 2s. 2d.; good pale long, 1s. 10d.; medium to bold ditto, 1s. 6d.; very small, 11d. to 1s. per lb. *Wild Ceylon* sold at 1s. 4d. to 1s. 5d.; dull and small, 10d. per lb. *Seed*, 1s. 3d. to 1s. 5d. per lb. In the periods between October 1 and February 23 the shipments of cardamoms from Ceylon have been—1887-8, 159,430 lbs.; 1886-7, 148,147 lbs.; 1885-6, 120,000 lbs.; 1884-5, 63,903 lbs.. As regards British India, figures relating to cardamoms are:—

	1886-7	1885-6	1884-5	1883-4
	lbs.	lbs.	lbs.	lbs.
Exports .. ..	295,446	299,324	264,750	198,007
Imports .. ..	151,273	52,218	19,795	7,553

**COCARILLA.**—A small parcel of 15 bales realised very low prices, good silvery quill to brownish and mouldy ditto at 23s. to 26s. per cwt.

**CINCHONA.**—The usual assortment of South American cinchona was offered for sale to-day, and a few lots here and there were disposed of, *Lima* at a fresh decline; 2d. to 2½d. for broken slightly mossy quill. The limit of 2d. per lb. for the remainder of the parcel seemed unobtainable. A parcel of cultivated Bolivian *Calisaya* bark, thin flat and unsightly, stated to contain 4.70 per cent. quinine sulphate and 1.5 per cent. other alkaloids, was shown, but not sold. Some lots sold, fair but thin sound, 1s. 9d.; damaged, 1s. 2d. to 3d.; ordinary broken quill, 1s. per lb. *Maraicao* sold at 2½d. to 7½d. per lb.; and 5 cases *Ledgeriana* (Java) aged quills, at 7½d. per lb. The following figures refer to shipments of cinchona from Ceylon between the periods of October 1 and February 23:—1887-8, 3,711,397 lbs.; 1886-7, 872 lbs.; 1885-6, 5,882,029 lbs.; 1884-5, 3,881,262 lbs. According to the latest mail advices the Colombo market is very quiet, both buyers and sellers holding off. No sales had yet been held. In good barks some transactions had taken place, but twigs were almost unsaleable. Exports from British India (chiefly Madras) have been as follows:—Season 1886-7, 1,286,900 lbs.; 1885-6, 1,440 lbs.; 1884-5, 745,730 lbs.; 1883-4, 306,419 lbs. The imports of cinchona from Java in the periods between July 1 (commencement of the season) and January 31 have been as follows:—

	Private Pl.	Govt. Pl.	Total
	½ kilos.	½ kilos.	½ kilos.
1887-8 .. ..	1,808,880	467,511	2,276,391
1886-7 .. ..	1,063,821	399,391	1,462,612
1885-6 .. ..	567,516	297,082	864,598
1884-5 .. ..	618,672	251,172	879,844
1883-4 .. ..	393,082	359,027	752,109

**CINCHONA LEAVES.**—Only a few parcels were offered at to-day's auctions; one of these, of five cases, together about 100 lbs., small and dark-coloured leaves, was bought in at 1s. 6d. nominally, from 1d. to 2½d. per lb. being offered. The cases were imported per East Indian steamer, and a mark which would seem to indicate that they were from Java. Three cwts. good green but slightly Truxillo leaves sold at 1s. 3d. per lb.

**COCAINE** without alteration at the prices last quoted. For to-day's auctions 150 1-oz. bottles of *Boehringer's* hydrochlorate were catalogued, but the lot was taken out.

**COLOCYNTH** steady, but without alteration. Fair pale

*Turkish* apple, rather seedy, is held at 1s. 4d. to 1s. 6d. per lb.; several common sea-damaged lots sold at from 4d. to 9d. per lb., and some rubbish at 1d. per lb. A parcel of *Spanish* colocynth was bought in.

**CONDURANGO.**—Several parcels have lately arrived here, including one or two shipments from Hamburg, which may have been sent over by speculators there, possibly with a view of depressing our market, and so acquire the new arrivals at a low price. The latter were pretty firmly held, however, and all bought in at nominal prices, from 2s. 6d. to 3s. per lb. It is said that quite recently from 1s. 3d. to 1s. 6d. per lb. was paid privately.

**CUBEBES.**—Sixty-five bags arrived yesterday *via* Singapore. At the auctions 10 bags mostly genuine but very stinky small and dusty berries were bought in at 26l. per cwt. Two bags spurious berries imported *via* New York also bought in at 20l. per cwt.

**CUMIN SEED.**—For a parcel of 8 bags fair *Malta* seed 49s. would be taken, but only 48s. was offered.

**DRAGONS BLOOD** steady. Good bright but somewhat seedy lump sells at 7l. 7s. 6d. *Socotra* drop bought in at 80s.

**ERGOT OF RYE.**—Four bags good sound *Russian* sold at 1s. 5d. per lb., while about 20 packages *Spanish* ergot were bought in, no bids being made, at 2s. 3d. to 2s. 6d. per lb.

**GALLS.**—A rather heavy quantity of *Turkish* galls was offered for sale to-day, but only a few lots were sold at prices which do not indicate any alteration. *Blue* galls are held at from 55s. for small, to 62s. 6d. per cwt. for good quality; green at 52s. 6d. to 55s.; and white mixed at 45s. to 48s.

**GAMBOGE** is offering rather more liberally, 48 cases being shown at to-day's auctions. Of this quantity about one-third was sold, at somewhat lower rates; good blocked pipe, fairly good colour but slightly damp, at 11l. 12s. 6d. to 11l. 17s. 6d.; damp and blocky, partly dark fracture, 9l. 15s.; darkish pickings at 9l. 5s. to 9l. 7s. 6d. per cwt.

**GUINEA GRAINS.**—For fifteen bags the high price of 27s. per cwt. was paid to-day.

**GUM ARABIC.**—Since the last auctions business has remained in a somewhat small compass, but holders remain generally firm. *Turkey* gums, sorts and selected, are held at abnormal prices, and the stock becomes smaller day by day. Of *Australian* gum 20 bags were sold at to-day's auctions, small, rather dusty loose drop, 71s. to 72s.; dull block, 52s. per cwt. *Cape* gum is in good demand for all varieties, and recent arrivals have found a steady sale, good glassy pale and amber drop at 7l.; pale dusty siftings at 6l. 7s. 6d. *Senegal* gum remains very firm at the recent quotations. About 30 casks *Barbary Amrad*, of recent import, have been sold privately at 85s. to 86s. per cwt.

**GUM ASAFETIDA.**—A recent arrival of 139 cases was offered by auction to-day, and about one-third part sold at steady rates; fair, part greyish block, 37s. 6d.; fair dry almondy, part grey, 29s.; good loose dry, but apparently partly mixed with stones, 45s.; good dry almondy pinky block, partly loose, at 40s. per cwt.

**GUM BENJAMIN.**—No less than 236 cases, mostly of recent import, were offered at to-day's sales, but in face of this heavy supply buyers held off, and only a few odd lots sold at a slight decline; good *Sumatra* seconds, white almondy centres, but brown sides, 8l. 15s.; *Penang*, darkish thirds, 6l. 15s.; rather better, 7l. per cwt. *Palembang*, of which a good proportion consisted, realised 5l. 10s. for good orange seconds, and 5l. 12s. 6d. for 32 small tins of very good colour; fair, somewhat dark, seconds, 4l. 17s. 6d. per cwt. *Siam* neglected; loose almonds, dark, partly blocky and woody, bought in at 15l.; very woody ditto, at 10l. per cwt.

**GUM GUAIAIACUM.**—Seven boxes barky and drossy block sold at 7d. per lb.

**GUM KINO** remains cheap, but holders do not seem disposed to accept further reductions. They refused 32s. 6d. per cwt. for fair Cochin grain.

**GUM MASTIC.**—Good pale tears, 2s. 9d.; yellow, 2s. 3d.

**GUM MYRRH.**—A fair quantity was sold at steady prices. Good clean bold siftings, 87s. 6d. to 90s.; small and dusty at 62s. 6d.; ordinary dark pickings at 28s. per cwt. The price for good pale picked Aden gum is 6l. 10s.; sorts, 92s. 6d.

**GUM TRAGACANTH.**—Last Friday 2,414 packages *Syrian* were offered for sale by auction, but only a few lots of ordinary quality sold: thirds at 6*l.*; siftings, 5*l.* 2*s.* 6*d.*; ordinary pickings, 10*s.* to 15*s.*; fair hog gum, 50*s.*; ditto siftings and pickings, 25*s.* to 10*s.* per cwt.

**HONEY.**—Several parcels, including 10 kegs fine hard palish *Chilian* (not so good as the lot sold at the recent auctions), were offered, but only a few sold; 10 cases non-descript candied yellow "orange blossom" at 35*s.* (for the remaining 12 cases 34*s.* is to be submitted). Half-candied yellow *New Zealand* honey is held at 35*s.* per cwt. There has been another arrival of 124 barrels *Chilian* honey this week.

**INSECT FLOWERS** have again declined in Trieste, especially for closed flowers. The "c.i.f." quotations are now: open flowers, 198*s.*; half-closed, 202*s.*; and closed flowers, 207*s.* per cwt. At to-day's auctions two barrels powder were bought in.

**IODINE** unchanged at 9*d.* for crude, and 10*d.* per oz. for sublimed. *Potassium iodide* still remains at 11*s.* 3*d.*

**IPECACUANHA.**—Twenty-eight packages were offered at to-day's sales, and nearly all disposed of at irregular rates, selected root at 7*s.* 6*d.*, being 1*d.* per lb. more than was paid last, but ordinary sound partly thin root at a decline of 3*d.* to 4*d.* per lb. compared with recent values. Fair annulated, partly rather thin, sold to-day at 6*s.* 5*d.* to 6*s.* 7*d.* per lb.; slightly mouldy at 6*s.* 4*d.* to 6*s.* 5*d.* per lb.

**JALAP.**—Of 25 bags good heavy Vera Cruz, ten were sold at 6*d.* per lb.

**KOLA NUTS.**—A good selection was again offered to-day, and several packages sold cheaply; good fresh at 5*d.*, wormy at 1½*d.* to 2*d.* per lb.

**MATICO.**—Of two bales just arrived, one sold at 9*d.* per lb. for dull, dark and broken leaves; the other, very good bold, slightly stalky, was bought in at 1*s.* per lb.

**MERCURIALS.**—The continued decline in quicksilver has caused a correspondingly easier feeling in mercurials. Five cases Chinese *Vermilion* (Wingkat brand) were bought in at 2*s.* 10*d.* per lb. nominally at to-day's auctions.

**MORPHIA** remains very quiet indeed at nominal prices. From 5*s.* 3*d.* to 5*s.* 4*d.* per oz. might buy, perhaps.

**MUSK.**—A pretty good selection was offered to-day, but only a few lots sold at almost unchanged rates, with perhaps a slightly easier tendency. For *Tonquin* pods, first pile, medium to bold, partly broken, good appearance, blue skin and underskin, 95*s.* per oz. is asked, 92*s.* being refused; an offer of 92*s.* 6*d.* was also declined for another lot of almost similar quality. Four tins dry old-fashioned pods, partly small and skinny, sold at 85*s.*; third pile, damp and spurious, but of good appearance and thin blue skin, brought 50*s.* per oz.; *Trimmings*, 1*s.* per oz. *Grain* musk sold at all prices from 3*s.* 6*d.* to 36*s.* per oz.; dull *Nepaul* bought in at 42*s.* 6*d.* per oz., nominally. *Cabardine* musk in good supply; fine bold trimmed pods, thin skin, bought in at 45*s.*, and juicy China at 20*s.* per oz., nominally.

**NUX VOMICA** remains dear. Thirty bags good pale silky Bombay were bought in at 18*s.* per cwt., nominally, an offer of 14*s.* 6*d.* per cwt. being refused.

**OIL (CASTOR)** remains steady here for the best qualities. Fine *Italian* sells at 4½*d.* per lb., while first *Calcutta* may be had at 4*d.* per lb. At auction, 2½*d.* per lb. was accepted for one lot fair *Cocoadia* oil. Second *Calcutta*, 2½*d.* per lb. The Liverpool market has become easier, owing to an increase in the stock; good *Calcutta* seconds have been sold there at 2½*d.* to 2½½*d.* per lb. From *Calcutta* we hear that, owing to the momentary scarcity of seed, oil-pressing is being partly suspended, and prices have consequently advanced.

**OIL (COCONUT).**—There is no better feeling for any description. *Ceylon* on the spot is held at 24*l.* 10*s.* to 24*l.* 15*s.* for good to fine, and from 23*l.* 15*s.* to 24*l.* forward. *Cochin*, spot, 27*l.* 10*s.* to 28*l.*, although some very fine oil has been sold above that limit; forward delivery, 26*l.* 10*s.* *Mauritius* dull at 25*l.*

**OIL (COD-LIVER).**—Persistent attempts are made to bring down the market to a lower level than has ever before been

reached, and we understand that some good new oil has been sold on the basis of 67*s.* per barrel, which is about the lowest price known. Bergen and Hamburg speculators are mainly responsible for this artificial depression, and it is certain that the oil manufacturers could not possibly sell at a profit at such quotations. Most of the manufacturers have accordingly practically withdrawn from the market at present, although they would be prepared to accept 3*s.* 3*d.* per gallon for new steam-refined Lofoden oil. Up to March 11 about 11 millions fish had been caught, against 10 millions at the corresponding date of last year, and 16 millions in 1886. The fishing is now almost at an end, and it is thought that, with the low prices now ruling for medicinal oil, it will pay the fishers better to turn their attention more to manufacturing oils. At the auctions 20 casks old ice-refined Lofoden sold without reserve at 2*s.* 2*d.* per gallon.

**OIL (OLIVE).**—There has been a further reduction in the price of *Mogadore* oil on our market, and this variety cannot now be quoted above 32*l.* landed. *Spanish* oil is entirely nominal at 37*l.*, and *Sicilian* remains quoted at 34*l.* 13*s.* The following are the latest reports from the producing countries:—In Italy the stock at Gallipoli, which has now been reduced to 5,000 tons, is being monopolised by one large operator. The stock of oil at Gioja, on the other hand, is increasing. Some business has been done for shipment to England, but Russia has not as yet entered the market. The exports of oil from Sicily during the month of February show a decrease, and towards the end of February a momentary improvement set in, which has, however, been almost null again, the market closing quietly at 30*l.* 15*s.* to 31*l.* 10*s.* per barrel for yellow Messina oil. As regards the Ionian islands, in Corfu the price has declined to 30*l.* f.o.b., but it is difficult to buy a quantity at this figure. In Zante prices are being upwards. In Candia the price has also risen, and now deals about 33*l.* 10*s.* c.i.f. U. K., so that further export business from that quarter is unlikely. Quotations in Tunis remain above the level of our markets, cargoes being generally quoted at 34*l.* to 35*l.* c.i.f. The quantity available for export turns out even smaller than was expected. The exports from Morocco to London continue on a small scale, and it is quite uncertain whether they will increase. In Spain prices have further risen, quotations now equalling about 37*l.* c. & f. steamer to Liverpool. Spain is, therefore, practically out of the market as a source of supply for the United Kingdom.

**OILS (ESSENTIAL)**—*Star anise* very dull at 6*s.* 5*d.* to 6*d.* per lb. on the spot. Of *Camphor* oil 7 cases brown Japanese sold at 2*d.* per oz. *Cassia* neglected, at 3*s.* 1*d.* per lb. on the spot. *Cinnamon* quiet, at 1*s.* 3*d.* to 1*s.* 6*d.* for fair. There have lately been some rather important shipments from Ceylon to London, and the exports from the island now stand as follows:—October 1 to February 23, 1886, 40,653 oz.; 1886-7, 40,165 oz.; 1885-6, 67,925 oz. In *Citronella* oil no improvement is noticeable in the market, and at the present time the ruling quotation for native brands, but at the auctions to-day ½*d.* per oz. was accepted for 6 cases, subject to approval. The exports from Ceylon are still increasing. They were between October 1 and February 23, 1886, 4,215,392 oz.; 1886-7, 3,246,356 oz.; 1885-6, 3,388,068 oz. In *Italian* oils we have no change to report. *French Lavender*, though still held at 7*s.* 3*d.* for bulk, is becoming very scarce, and expected to advance ere long. *Otto of rose* is also very firmly held, although 20*s.* 6*d.* per oz. f.o.b. Constantinople still remains the quotation for well-known brands. Five cases *Patchouly* oil offered to day were bought in at 2*s.* 6*d.* per oz. *Peppermint* very quiet and tending low; 10*s.* 6*d.* to 10*s.* 9*d.* per lb. for H.G.H. Japanese oil and menthol crystals are liberally offered, but meet with little attention. *Ylang-ylang* neglected. For 2 bottles very dark oil 4*s.* 6*d.* was refused, and the lot bought in at 6*s.* per oz.

**OPIMUM.**—The Smyrna market, after experiencing considerable weakness at the beginning of the month, closed somewhat firmer on March 7, although there was not much inclination to operate. One or two days later, however, about sixty cases changed hands, partly for speculation at 8*s.* 11*d.* per lb. for Karahissar "with visit." The news from the growing-districts is very contradictory, but it is mostly of a very favourable character, and one report even goes so far as to say that if the excellent weather which has prevailed

...ues the harvest promises to be one of the best on  
ed, especially in the Koniah and Karahissar districts.  
e there is talk already of a crop of from 8,000 to 10,000  
ts. It should be remembered that the last sowings  
according to all accounts, been very extensive. The  
et is perfectly lifeless here, but a slightly improved  
nd is expected for soft shipping varieties, which are  
held at 16s. for Malatia, and 17s. for Salonica. The  
n of this possible movement is that advices from Peru  
nce that the contemplated State monopoly of opium  
ot be carried out.

(ANGE PEEL is still in very large supply, and the quota-  
remain as before, from 1s. 2d. to 1s. 6d. for good thin-  
falta. The demand seems very restricted.

(ICKSILVER.—The importers have reduced their quota-  
to 8l., but second-hand holders would sell at 7l. 15s.  
article is decidedly wanting in animation.

(ILLAYA.—Not much doing, 15s. per cwt. being the  
est quotation.

(ININE.—Prices have again receded since our last report,  
at 1s. 8½d. per oz. we understand that a very fair amount  
business was done in German brands for May-June deliv-  
It is said in some quarters that the market has been  
sely depressed in order to bring down the price of bark  
day's cinchona sales in Amsterdam. It may be doubted  
her this is the case, but, if true, the manœuvre has  
rently been successful, as will be seen by our telegram  
Amsterdam. The *English* and *French* makers have not  
d their official quotations. *Fabbrica Lombarda* is  
ally held at 1s. 10d. per oz.; so are *Jobst's* and *Zimmer's*  
ris, but *B. & S.* and *Brunswick* quote 1s. 9d. per oz. for  
The "option" business appears for the moment to  
come to a standstill. At the auctions 1 tin (200 oz.)  
ish quinine (Thomas) sold at 1s. 6d. per oz. subject to  
xamination.

(UBARB.—The quantity catalogued for sale to-day con-  
sists of 141 cases, mostly of ordinary and medium quality.  
he was little demand, and prices cannot be said to show  
alteration, but too little was sold to positively test the  
of the market. *Shensi* root, small round druggists', for  
ring, fine pink fracture, sold at 2s. 11d. per lb.; small  
ditto at 2s. 4d. per lb.; medium to bold flat root, of good  
parance, and fair red, partly dark fracture, 1s. 11d.; small  
edium flat, fair orange coat, greyish fracture, 1s. 4d.;  
old wormy, 6d. to 8½d. per lb. *High-dried* root, flat,  
and wormy, sold at 7d. to 8d. per lb.

(FFRON very firm, at 49s. per lb. for the best *Valencia*,  
a prospect of higher prices.

(RSAPARILLA.—A pretty varied assortment was offered  
oy, but the demand, except for Jamaica root, was of the  
test. Forty-three bales good *Grey Jamaica* sold rather  
ly at steady rates; sound, 1s. 8d. to 1s. 10d.; damaged,  
d. to 1s. 9d. per lb. Good *Lima Jamaica*, in bundles,  
d. *Honduras* nominally held at 1s. to 1s. 1d., but less  
d be accepted. Nine bales damaged "FD Crown" sold  
out reserve at 8d. per lb. *Mexican* bought in at 5d. per lb.  
t bales twigs, offered as sarsaparilla and newly imported  
the West Indies, were bought in, no offer being obtain-

(AMMONY.—Several lots were offered to-day, but none  
Good Skilleep is held at 10s. per lb. The Smyrna  
net is very firm, with a small stock.

(NENGA. There is not much inquiry just at present, and  
1s. 10d. to 1s. 11d. per lb. is the price for good bright  
At the auctions several lots were bought in at 2s.

(ENNA.—Of 176 packages *Tinnevely* offered to-day, a  
proportion sold at very firm prices, from ½d. to ¾d. for  
common blackish, and 1d. to 1½d. for ordinary dark and  
to 3d. to 4½d. per lb. for fair small to medium yellow to  
ish leaves. Fine leaves were not offered; 63 packages  
*Andrian* senna all bought in.

(HELLAC.—A small but decided advance has occurred in  
article, with a private business of fair extent. At the  
ions, although a pretty considerable quantity had been  
ertised, only 353 chests were actually offered, and *second*  
ge realised an advance of fully 1s. per cwt., fair but

livery selling at 46s. to 46s. 6d.; ditto but blocky, 45s. 6d. to  
46s.; blocky, 42s. 6d.; ditto unworked, fair, 47s. 6d.; reddish  
and out of condition, 46s. to 46s. 6d. Dark button lac sold  
at 36s. 6d. Since the auctions 49s. 6d. per cwt. c.i.f. terms  
has been paid for *second orange* TN basis, forward delivery,  
and 39s. for *garnet lac*, A.C., same conditions. The market  
closes firm.

(PICES are generally dull with one or two exceptions.  
*Cassia lignea*, common coarse, 20s. to 20s. 6d. *Cloves*  
neglected, and fully ¾d. per lb. cheaper for Zanzibar; fair to  
good, 7½d. to 8d. *Chillies* quiet; fair Zanzibar, 30s. *Ginger*  
dull; new cut Cochin, 1s. 6d. cheaper; small to bold, 32s. to  
49s.; fair bold, 75s.; Bengal ginger also lower, at 12s. 6d. to  
13s.; new Jamaica sold at 58s. to 59s. for ordinary washed,  
and 39s. to 42s. for ordinary to fair Rhatoon. *Mace* and  
*Nutmegs* steady. *Black pepper* steady, at 7½d. for Singa-  
pore. *White pepper* very firm: fair Penang, 9¼d. per lb.  
*Pimento* dull; fair to good, 2½d. to 2¼d. per lb.

(QUILLS.—A few lots rather dark root sold at 2¼d. per lb.

(STRYCHNINE firm at 2s. 5d. to 2s. 6d.

(STRÖPHANTHUS.—Half of 150 lbs. green seed from the  
Cape was sold at 6s. to 6s. 6d. per lb, the remainder being  
held at the former figure.

(SULPHUR rather firmer; *flowers* up to 9s. 6d. per cwt.;  
*roll*, 6s. to 6s. 6d. per cwt. At to-day's auctions 50 bags  
Sicilian flowers sold at 6s. per cwt.

(TEA.—China remains quiet, with but little passing by  
private contract, and dealers complain of scarcity of orders  
from the country. Leaf-teas with but little either in  
appearance or liquor to recommend them are readily  
taken at 7½d. to 7¾d., and any Souchongs with liquor  
fetch 8½d. Very few really fine Pekoes are to be had, and  
scarcely anything has been sold in leaf-tea over 1s. 6d. to  
1s. 7d. per lb. for weeks past, though very useful teas are to be  
bought from 1s. 2d. to 1s. 4d., and perhaps these grades  
show least advance of any leaf-teas. Ceylons are offering  
freely, and show good value compared with Assams, and as  
the supplies for a few weeks after Easter will be light,  
buyers will probably not be wrong in going into stock for  
teas under 1s. But little interest is taken in the tea market  
in the forthcoming Budget, as there is very slight prospect of  
a reduction in the duty on tea, and none of an increase.

(TONQUIN BEANS.—Several cases fairly good, slightly  
frosty *Pará* beans were bought in, 1s. 9d. per lb. being  
suggested for these. Dull broken foxy beans sold at 1s.  
per lb.

(TURMERIC again cheaper, and in excessive supply. *Bengal*  
sold at 9s. 6d. per cwt. At the auctions some 2,600 bags  
*Madras* and *Bengal* were nearly all bought in.

(VANILLA.—Nearly 400 tins were offered to-day, and the  
greater part sold at an occasional slight advance for good  
beans, which were scarce. The large proportion of common  
sorts declined from 1s. to 1s. 6d. in value. *Mauritius*, good  
brown, 7½ in. to 8½ in., sold at 18s. 6d. to 21s.; good, 7½ in.  
to 9 in. at 20s.; chocolate, 6 in. to 7½ in. at 10s. to 15s.; 4 in.  
to 5½ in. at 7s. 6d. to 9s. 6d. per lb. Long crystallised *Java*  
pods sold at 1s. 8d. to 2s. per lb.

(WAX (BEES') steady, with sales of fine yellow *Jamaica* at  
5l. 15s.; good orange, 5l. 12s. 6d.; orange and grey, 5l. 7s. 6d.;  
fair grey, 5l. 5s.

THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from our Correspondent.)

AMSTERDAM, March 22.

THE public sales of cinchona bark held here to-day com-  
prised 1,438 packages, all Java bark, with the exception of  
43 bales East Indian, 8 bales Ceylon, and 1 bale Bolivian  
bark. The Java bark was made up as follows:—*Succirubra*,  
quill, 201 cases; broken quill and chips, 89 bales; root,  
39 bales. *Calisaya Schukhrast*, quill, 10 cases; broken quill  
and chips, 24 bales; ditto *Ledgeriana*, quill, 5 cases; broken  
quill and chips, 625 packages; root, 152 packages; ditto  
*Officinalis*, broken quill and chips, 57 bales. *Hybrid*, quill,  
106 cases; broken quill and chips, 78 packages. The whole

quantity weighed 102 tons, of which 67 tons were manufacturers' and 35 tons druggists' bark. The former contained about 92,800 oz., or an average of 4 per cent. quinine sulphate. At the auctions 1,341 packages were sold at lower rates as compared with the last London sales, the unit value ranging from 12 to 13 cents per  $\frac{1}{3}$  kilo., equal to from 2 $\frac{1}{2}$ d. to 2 $\frac{1}{4}$ d. Druggists' bark, broken quills, chips, and quills, weak to fine, realised from 16 to 135 cents per  $\frac{1}{3}$  kilo. (= 3d. to 2s. 0 $\frac{1}{2}$ d. per lb.); druggists' root from 23 to 27 cents per  $\frac{1}{3}$  kilo. (= 4d. to 5d. per lb.); manufacturers' bark, broken quills, quills, and chips, from 7 to 96 cents (= 1 $\frac{1}{4}$ d. to 1s. 5 $\frac{1}{4}$ d. per lb.); and ditto root, from 39 to 86 cents (= 7d. to 1s. 3 $\frac{1}{2}$ d. per lb.).

#### CHEMICALS IN THE NORTH OF ENGLAND.

THE general tone of the market is decidedly better, and orders are coming in more freely, as at last the opening of the spring seems in view; and as this means direct shipments to Canada, Russia, and the north of Europe, there are reasonable grounds for placing some hope in an improved demand and firmer prices.

SODA ASH has been firmly maintained at 1d. to 1 $\frac{1}{16}$ d. per degree.

CAUSTIC SODA seems at last to have sounded the lowest depths of decline, and is now much firmer at 5l. 15s. per ton for 60 per cent., and at 6l. 15s. per ton for 70 per cent.

BLEACHING POWDER has been firmly held at 7l. 7s. 6d. to 7l. 10s. per ton for soft wood on rails, and at 7l. 15s. for hard f.o.b.

BORAX.—The Americans continue to buy *Californian* on this market, and have just paid 31l. per ton f.o.b. The interesting question to holders is, how much more the Yankees will pay; but a far more important point is the question, what effect will all this buying have upon the English makers? Each year for some time past the imports of borax from California have amounted to over 2,000 tons per annum, and as this has come to an end the gap has to be filled up, and the opinion is general that the process will cause an advance in prices. The market at present is very steady at 30l. per ton for crystal, and at 31l. per ton for powdered.

SULPHUR is another chemical which has gone through a singular variety of changes in its condition as a mineral. The burning of Sicilian brimstone for the manufacture of sulphuric acid has now become a "history little known" since pyrites have grown into such a colossal trade; but even this more recent substitute is threatened by the never-ending application of waste products. Near all alkali works may be seen huge masses of what is termed "waste," the amount of which is estimated at 100,000 tons per annum, and though sulphur has for years back been recovered from it, the extraction has never become of great importance, partly by reason of the cost, and partly on account of the presence, or fear of presence, of arsenic. A new process is before the public which if successful will bring another revolution into the trade and enable makers using the Leblanc process to hold their own and more. It is stated that this sulphur can be obtained perfectly pure, and if it turns out so, and can be sold at a low price, we shall again be able to beat the French refiners out of the Indian, and the Germans and Italians out of the Canadian, markets—two very important outlets. The present values are: Best 3rd (*Sicilian*), 4l. 5s. per ton; *roll* sulphur, 6l. per ton; and *flowers* of sulphur, 9l. per ton.

ACIDS.—The principal of these, viz., *tartaric*, *citric*, *oxalic*, and *boracic* acid, are all drooping and suffering from a reaction which has not yet come to an end. *Tartaric acid*, after advancing to 1s. 6 $\frac{1}{2}$ d., has declined, and can now be bought in quantity at 1s. 6d. to 1s. 6 $\frac{1}{4}$ d. The supplies of this chemical from the Continent grow larger each year, and yet, curiously enough, some places—Naples, for instance—with constant native supplies of bitartrate of potash, after making it into acid for some little time, have ceased to do so. *Citric acid* also shows signs of weakness, and stands to-day at 1s. 6 $\frac{1}{2}$ d. to 1s. 6 $\frac{3}{4}$ d., a very low price. Here, again, French and Italian makers slip in and compete with the English manufacturers. *Oxalic acid*, after a short advance of 1d.,

has receded to 3 $\frac{1}{2}$ d., and is not very active at the price. *Boracic acid*, after a brisk inquiry in the earlier part of the year, has become quiet at 27s. 6d. per cwt., but the demand for this chemical is constant, not only for the manufacture of borax and for pottery purposes, but also in new processes for the preservation of meat and fish, the latter being quite a special departure, and one which may become of great importance.

#### PRIVATE v. GOVERNMENT CINCHONA-GROWING IN JAVA.

THE Java cinchona-planters consider themselves aggrieved by the action of the Dutch Indian Government, which is vigorously extending its cinchona plantations in different parts of the island and sending the bark for sale to Europe in competition with the private growers. A number of the latter, therefore, have now presented an address to the Governor General of the Dutch Isles, in which they call attention to what they allege to be an unfair Government competition, and request that the direct sale of the Government cinchona plantations may be instructed to lay out any new gardens, or to renew planting where trees are cut down. The memorialists point out that originally the Government plantations were commenced solely for the purpose of ascertaining whether cinchona cultivation was practicable in the Dutch colonies, and of encouraging and assisting private planters in raising trees, while the commercial aspect of the Government undertaking was limited to the sale of a sufficient quantity of bark to defray the working expenses of the gardens. It is further asserted that the private planters are heavily taxed, while many of them also work with borrowed capital, and are otherwise hampered in their undertakings, and it is pointed out that the cultivation of cinchona is still extending very largely, while the estimated consumption of quinine only increases by about 10 per cent. per annum, and that, moreover, at the present market prices of the bark, the Government gardens, so far from being a source of profit, are worked at an absolute loss. In 1835, for instance, the last year of which complete official figures have been published, the Government bark, which averaged 3.15 per cent. quinine sulphate, cost 37 $\frac{1}{2}$  ce. per half-kilo., or 6 $\frac{3}{4}$ d. per lb., to produce, so that it must have left a loss of about 2d. per lb. at the unit figures then ruling in Europe. The case of the Java planters certainly appears to be a strong one, but it is doubtful whether the Government will accede to their request, and difficult to see how they could do so except by selling their cinchona gardens outright at the highest bidder. It may here be mentioned that, although the shipments of Government bark have risen from 432,711 half-kilos. in 1835, to 525,698 half-kilos. in 1836, and are estimated at 700,000 half-kilos. for 1837, yet the exports of bark by private planters have increased in very much larger proportions, and are now four times as heavy as those of the Government, whereas in 1834 they barely equalled the latter.

#### BARLEY WINE.

AT a recent meeting of the Academy of Sciences, Paris, M. Georges Jacquemin read an interesting note on barley wine, describing a process by which, through the influence of a peculiar ferment, *Saccharomyces ellipsoideus*, a tartarised wort of barley is made to yield a true wine of pleasant taste, and more nutritive than grape wine; it contains more respiratory aliments, an albuminoid substance, and a larger proportion of phosphates, which are calculated to restore the nervous system and the bony tissues. It also differs from white grape wine by being copiously precipitated by tannin, while a portion of the malt may be replaced by crushed wheat or barley that has not sprouted. This wheat or barley wine is stated to be equal in quality and cheaper than that of pure malt, and the vinous character in question is an alcoholic fermentation of a totally different character from the ordinary yeast of beer.



**Memoranda for Correspondents.**

Send your proper name and address: we do not publish them unless you wish.  
 Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.  
 In our newspapers, please mark what you wish us to read.  
 On anything of pharmaceutical interest: we shall do our best to reply.  
 In writing for formulae consult the last volume, if you have it.  
 Advertisements, &c., not noticed in this issue will, if possible, be attended to in the next week.

**The Pharmacy Acts Amendment Bill.**

*Branch Shops Clause.*

I read with interest the letter by "Unregistered Manager" you publish this week. I quite agree that it is very hard lines for all competent practical men so to have to resign their mode of livelihood, and another chemists who have placed them on present footings, should surely be able to judge capability, whether by registration or not. Vested interest is respected in legislation, and I would suggest that "all persons now so acting should be exempt," in the event of a law with this new clause becoming law. Some people say "managers can now qualify," but very probably they neither have the time, the means, nor the inclination to do so. I venture to say it will yet be many years before all physic is dispensed by qualified persons, and I will see why a competent unqualified branch manager will be upset, while an unqualified junior, with his emolument of the way, can still dispense all prescriptions one to hand. Some noble lords may yet opine that pharmaceutical chemists should dispense prescriptions. What, then, all the chemists and druggists would say about the matter?

QUALIFIED SUBSCRIBER. (21/61.)

Thirty years' experience of chemists' assistants will enable me to endorse the gist of "Unregistered Manager's" letter. I trust THE CHEMIST AND DRUGGIST will give place to suggestions which may secure exemption for all *bona-fide* trustworthy managers. Taking a common-sense view of the question of public security—truly the anomalies of the law are inscrutable—it is seriously proposed that a man who has served an apprenticeship to a duly qualified chemist, and who may subsequently have been an assistant for fifteen or twenty years, is not legally competent to dispense a worth of syrup of squills and paregoric. Yet a boy or oilman's boy of fourteen or fifteen years of age may, as a matter of course, freely vend deadly solutions of aconite, opium, and, in fact, the whole category of potent poisons, let or hindrance; nay, more, if he even advises their use properly (and he does so occasionally), for the result, fatal, no responsibility accrues, for he is not within the scope of the Pharmacy Act. As our legislators are so concerned for the public safety, the Society has a grand opportunity—will they use it?

Yours obediently,  
 SPES.

The above statement of the law is inaccurate. Any unqualified person selling a scheduled poison is liable to a fine of 5l. (see page 148 of THE CHEMISTS' AND DRUGGISTS' YEAR-BOOK, 1883). Moreover, a grocer's boy or anyone else who is proved to be in any way responsible for the administration of a poison causing a fatal result would be liable to a fine for manslaughter. So would a chemist or a druggist. This would be quite independent of the Pharmacy Act.

SIR,—With reference to the above-mentioned Bill and your somewhat academical comments thereon, I beg to place before your notice a few facts from an unregistered manager's point of view. I have now been twenty-two years in the business, the last ten as manager. I have been married for upwards of fifteen years, and I can assure you, sir, that not only has my salary been exhausted, but my time has been fully taken up in trying to maintain my family in a respectable position, so it has been utterly impossible for me to qualify. Now, if the clause attached to the Bill is placed on the statute book I should like to ask you, sir, or any of your readers, what is to be our fate. I may state that I hold as good a certificate of proficiency as it is possible for any man to possess, and my present employer has such confidence in my ability that he intimated only the other day that, if circumstances compelled him to part with my services, he should certainly sell the branch which I am now managing. Notwithstanding facts like these, notwithstanding my long experience, during which I have dispensed some thousands of prescriptions and never made the slightest approach to a mistake, despite all this, my living is to be taken away, my family cast upon the world, and I, an honest, though humble, citizen, pauperised by State action. I wish to ask, sir, if you consider this to be honest, just, or reasonable. I also desire to ask if some middle course could not be adopted—say a proviso to be inserted in the Bill exempting all existing managers possessing *bona-fide* certificates of proficiency from last and present employers. I feel assured an addition of this description would meet the case. It would not affect the principle of the Bill, it would not rob the public of that protection so desired by all, as the present managers would exercise the same due care in the future as they have in the past—in fact, it would injure none, but benefit many. So, trusting that you, who have oftentimes championed in the trade the cause of the weak against the strong, will not fail to let us have the benefit of your advice upon this subject in your next issue,  
 I am, yours, &c.,

A VICTIM OF CIRCUMSTANCES. (23/44.)

SIR,—I hope "Unregistered Manager's" letter will initiate some steps to protect the interests of a considerable number of steady, trustworthy men threatened by the added clause to the Pharmacy Amendment Act. Unfortunately, managers are dotted over the country, and are at great disadvantage for anything like concerted action. There is nothing to be looked for from the Pharmaceutical Society, their sole aim being to get their pet scheme pushed through at any price; and it is clear unless our case be fairly represented in the House of Commons our legitimate claim to enfranchisement will be overlooked. I venture to suggest that exception be claimed for all existing managers who have served a *bona-fide* apprenticeship, and who can produce satisfactory testimony as to their ability as managers or assistants for a period of ten or fourteen years. This would meet the admitted evil of branch shops being left in charge of apprentices and youthful assistants, and would also be in the interests of public security. Middle-aged men who have been constantly engaged in dispensing and superintending for fifteen or twenty years are surely more trustworthy and less liable to err than the inexperienced youths who, after six or twelve months' cram, barely guess a sufficient number of the useless and hazardous "Square" conundrums.

In the absence of a better scheme, if all managers entitled to exemption will supply name, age, and length of service, I will undertake to collate them, and place them in the hands of a member of the Government who will do his best in our interest.  
 I am, sir, yours truly,

127 Calvert Road, East Greenwich. ALPHA.

SIR,—I venture to assert fully 80 per cent. of the trade will endorse your remarks, also "Heder's" letter *re* Pharmacy Act Amendment Bill, in last week's issue. It must bring a glimmer of hope to many in the trade, despite the remarks of "Unregistered Manager." I would remind "Unregistered Manager" that "two wrongs do not make one right." We all howl and rave about the stores, but why not set our own house in order? And, pray, on whom (supposing the Bill passes) will the hardship fall? Look at the position of the Minor man now. After he has been duly apprenticed, and has gone through hard study, he has to practise many acts of

self-denial to obtain the much-coveted qualification, unless he belongs to the class of gilded youths—and they generally seek happier hunting-grounds. Having passed the examination, it certainly is rather annoying to be pitted against the unqualified man, and thereby compelled to accept a much reduced salary. Many unqualified men have never served an apprenticeship to the trade, and not a few are only, or, rather, were only, oilmen's assistants. To my mind, the great hardship falls on the chemist in a small way, who has these bogus branch shops for opponents.

In conclusion, I beg to appeal to all members of the trade, especially younger members, who have the "rough road" of pharmacy to travel, to do their utmost by writing to their respective M.P.'s asking their support of the Bill; and, doubtless, right will be might in this case.

JUSTITIA. (24/58.)

#### The Pharmaceutical Society.

SIR,—I regret that a gentleman known to me only through the columns of your paper, and respected in consequence of that acquaintance, "Heder," to wit, should construct the letter to which I last week saw his name appended. When he referred to the grumbler I am afraid that I found the cap fit me, but with my natural modesty, I consider that I can show your correspondent that much of the grumbling indulged in is unfortunately only too justifiable.

I am not acquainted with any men who "think that when they have passed its (the Society's) examinations they should be furnished with a good business, a high social status, and an assured income." Personally, I have never expected that triple grant, although, perhaps, if it were forced on me I should not turn and rend the donors.

When "Heder" states that "a diploma does not make a good business man," I agree with him, although lower down he is inconsequent when he infers that the Society has been instrumental in turning out good "professional men." Whether he is correct or not in inferring the latter it is not necessary for me to assert, but I would remind him that the Society's councillors do not agree with him. They are, and have been for some time, very zealous in putting forth that the chemist of to-day is but a very imperfectly educated individual, and the object of the curriculum is to remedy that defect. "Things which one would rather have put differently" are to be found in "Heder's" letter, some society-worshippers will consider.

Another point it seems necessary to remind "Heder" of, viz., that young men do not apply to the Society for "a diploma as a recognition of their scientific attainments." I myself, and most other men, I think, have applied to the Society for a diploma, not so much in "recognition of scientific attainments" as to meet the legal requirements of the calling in which, fortunately or unfortunately, we find ourselves. If this is a depraved state of affairs, what a shocking amount of depravity is in the drug trade!

By "Heder's" own words I would show a cause of complaint against the Society. He applauds the "qualified assistants" clause of the Pharmacy Bill—a simple enforcement of the 1868 Acts' object, as you, sir, have pointed out—and I would ask, is it not a cause of complaint that the House of Lords should be left to a chance "Correspondent from Lancashire" for information respecting the working of the Pharmacy Acts. It would be manifestly unfair to state that interested motives prevented the Council informing our legislators on this point, but in an "aside" it may be remarked that more than one councillor employs an unqualified manager for a branch.

The absolute ignorance which Lord Milltown displayed in replying to questions about the Bill does not reflect on the noble lord, but on the Pharmaceutical Council. Is this an "unfair grumble," Mr. "Heder"?

Is there any enthusiasm about the education question? I know there is not. What chemists want is not a curriculum scheme, the beneficence of which is to shine on the next century, but a just protection of the qualification for which he has expended time and money. "A just protection" and "a monopoly," it seems necessary to add, are not interchangeable terms. If one may infer anything from the recent discussion in the House of Lords, one would conclude that a "protection" might be forced on the pharmacist which the Council has over and over again refused to ask

for. It is very evident that the emasculated condition of the Pharmacy Acts, in consequence of the liberties enjoyed by corporate bodies, is actually unknown to the legislature. It takes a very abnormally-developed bump of vanity to glorify a body which leaves so much undone which ought to have done, and does so much which it ought not to do.

What would the united barons have thought of asking John to sign the Magna Charta, his majesty proposed instead to levy a tax upon them for the purpose of instituting a research laboratory to attempt the squaring of the circle? There is an analogy somewhere.

I shall not occupy your space by attempting to justify any other "grumbles," but will express a hope that "Heder," in the exercise of his customary thoughtfulness, will admit that after all the "grumbler" may have a "cause why."

Yours obediently,  
W. G. BLACKMAN.

SIR,—"Heder" seems to look upon the Pharmaceutical Society as quite a model one. The British public of the present day look upon chemists as simply tradesmen, and not as professional gentlemen, which is proved by the way in which they patronise the stores and grocers for such articles as tr. opii, paregoric, sweet nitre, &c. I have known them to take prescriptions to the grocer in preference to the chemist. Within the last three months I have had customers bring their prescriptions and ask for each article separately, saying they could mix them themselves. What does Mr. Heder say to the public thinking themselves as competent to dispense their prescriptions as qualified experienced men like myself?

No doubt it would be a great advantage if we could consider ourselves professional men (I for one would like it immensely). But those dreams will never be realised, and the sooner we condescend to look upon ourselves as ordinary tradesmen the better, even though we are qualified according to the rules of the Pharmaceutical Society.

The clause referring to qualified assistants in the Pharmacy Bill, if it ever comes into force, will be a great injustice to hundreds of competent men who manage branch businesses, &c., and will be the means of adding to the ranks of the great unemployed. But considering that a man may presently manage a business in his employer's name, but immediately on putting up his own he would be pounced upon by the Pharmaceutical Society, it will only be one more link to the chain which is gradually getting twisted round the liberties of the people under the false name protection. I hope those whom the clause will strictly affect will not be slow in pointing out its injustice to their local M.P.'s.

March 19. I remain, yours truly,  
JUSTITIA. (24.)

SIR,—Your correspondent "Heder" is surprised at the estimation in which the "Society" is held by the public in general, and he also maintains that "the Pharmaceutical Society has very honestly discharged the important duties with which Parliament has entrusted it."

Now, sir, I believe that the low esteem in which the Society is held is due to an opinion very generally entertained by the druggists in England that the Council have done their utmost to evade carrying out the most important part of the duty entrusted to them by Parliament.

If an unregistered tradesman (a grocer or an oilman) deal in poisons, he can only be prosecuted by the Pharmaceutical Society under the 15th clause of the 1868 Act; and if a druggist report such illegal sale, and furnish proof, the Council will not prosecute. There are druggists in all parts of the kingdom to whom this is known.

"Heder" is also pleased at the additional clause inserted in the "Pharmacy Acts Amendment Bill"; but I think he has no cause for joy, as the penalties are to be recovered in the same way as in the 15th clause of the 1868 Act, which is only another way of saying they will never be enforced if the Council can help it.

To make the penal portions of both Acts really effective, it should be in the power of a common informer to institute a prosecution, and half the penalty inflicted should go to the informer, except the latter be a policeman, in which case the half penalty should go to the Policemen's Superannuation Fund.

Such a change could be made in the Bill in the House of Commons, a real benefit would result; but unless it be so amended, I trust it will not pass.

Yours truly,  
READER. (24/39.)

Sir,—To my mind the Pharmaceutical Society has only to blame for the contemptuous way it is spoken of by its assistants and chemists. It has been too much an "protecting" instead of a "protecting" society. It would be better if it were richly and voluntarily, if the requests of members for better protection had been respectfully considered, and more endeavour had been made to assist in the diploma or belonging to this alma mater or to which the general public require to know—the most efficient, skilled, and well-read chemist in Birmingham that any diploma has his business in a side street to the poorest of the poor, giving every satisfaction to those who know him or do business with him. The qualified chemists clause recently passed in the House of Lords does not go far enough. No Bill will be complete which does not include all unregistered persons trading as "chemists," or partners in limited companies or stores.

Yours respectfully,  
J. S. SPENCER.

Botanical Curiosities.

Sir,—It may interest Mr. Hill and other botanists to know that *Phalaris canariensis* has been growing on the beach in Queensferry Road, Edinburgh, for at least 100 years. I have in my collection a specimen from that date dated 1831. At that time the heap in question was known to Edinburgh botanical students as a habitat of the plant.

In its isolated position there can be little doubt that it originated from some canary-seed which had got thrown out of some of the rubbish. It is also, I believe, found on the heaps in the neighbourhood of Leith, although I have gathered it there myself.

The spasmodic appearance of this exotic is interesting, as affording another example of the difference in germinating power of seeds from the same species.

I am, sir, yours faithfully,  
G. A. GRIERSON.

The Medical and Pharmaceutical Preliminary Examinations.

We have received the following letter in reference to the preliminary examination of the Aberdeen University:—

University of Aberdeen,  
March 15, 1888.

SIR,—Your communication of the 4th ult. was laid before a recent meeting of the medical faculty, and I have to inform you that it was agreed to accept, *pro tanto*, the Preliminary examination of the Pharmaceutical Society in accordance with our knowledge.

Yours faithfully,  
MATTHEW HAY,  
Sec. Med. Fac.

The Incorporated Society.

Sir,—May I trespass again upon your space to reply to your letter in your last issue from Mr. Jones, of Birmingham? The personal part of the charge I need not again repeat. I have given a plain answer to a plain question, and I intend that my conduct has been strictly legal and defensible. I would, however, go a step farther, and ask, if it has prompted Mr. Jones to try to damage a society which has been formed to assist the trade to defend its interests, after the failure of the old Trade Association to which I have subscribed for many years?

That gentleman does not deny that he has been actuated by interested motives, and, moreover, admits that the association which came to grief had the inestimable advantage of being under personal control. I cannot help thinking, however, that the line taken up by your correspondent shows a spirit of jealousy and suspicion which is quite unequalled for the time being. Reading Mr. Jones's letter some may think that the

"self-elected councillors," as he chooses to call them, of the Incorporated Society of Chemists and Druggists must derive some special benefits, pecuniary or otherwise, from that position. Such, however, is not the case. On the contrary, I and my colleagues have given many days of our time (which, even in London, is valuable) to organise this society and induce fellow-chemists to join. We have been ably assisted by our solicitor, a gentleman who was appointed on account of his knowledge of the law affecting our trade, and who has acted throughout in the most disinterested manner.

In the opinion of many of us, we have lost—through the spirit of jealousy and want of co-operation above referred to—most of the advantages which it was intended we should enjoy in return for the restrictions imposed upon us by the legislature. Moreover, the hope that the Pharmaceutical Society would have done something to assist struggling pharmacy has been disappointed. Nevertheless, we believe that our society will pick up some portion at least of the lost ground, despite the cold water that Birmingham is trying to throw upon an honest endeavour. To be in a worse condition would be well-nigh impossible; but by combination we hope not only to defend the rights but to improve the position of the trade, and if we can only partially gain this end we shall consider ourselves well repaid for all the trouble incurred.

Yours truly,  
J. H. READ.  
818 Holloway Road, March 20.

Vinum Ferri.

SIR,—Many years ago, more than I now care to remember, I examined the precipitate formed in the making of vinum ferri by the old way. I found it to consist wholly of basic ferric tartrate. The best way of preparing this neglected but still useful article is to set up two Winchester bottles with a bundle of iron wire in each, and wine to nearly fill them. Cork loosely, or they will be blown out by the liberated hydrogen. Use from the bottles alternately, filling up the empty one and placing it in the background to mature. The wire need not be renewed for years, nor the precipitate removed.

T. B. G. (23/35.)

Otto of Rose.

SIR,—The stearothen of the rose is a source of much loss of time to the pharmacist, who has to melt the otto every time that he uses ever so small a quantity; and, should it be mixed with a spirituous liquid, he has, moreover, to filter the product. Would it not be worth the while of a first-class house to prepare by filtration and expression a liquid otto devoid of these inconveniences? To do this on a small scale would entail considerable loss, but with care this might be avoided in the large way, though the price would, of course, be augmented by some 30 per cent. perhaps.

T. B. G. (23/35.)

DISPENSING NOTES.

[The opinions of practical readers are invited on subjects discussed under this heading.]

Hair Lotion.

SIR,—Which is the best way to make a presentable emulsion of the following:—

- Pulv. boracis .. .. . ʒiiss.
- Ol. olive .. .. . ʒj.
- Liq. ammoniæ (B.P.) .. .. . ʒj.
- Eau de Cologne .. .. . ʒss.
- Aq. destill. ad .. .. . ʒviiij.

M. Ft. lotio.

Can it be done best with ol. amygd, nucis, or sesame, or ol. olive? I have tried several ways repeatedly, but without success.

Yours very truly,  
J. CLARKE.

[We cannot appreciate the difficulty which our correspondent speaks of, for we get an excellent emulsion by shaking together the borax, oil, and 2 oz. of water. Mix the ammonia with the eau de Cologne and the rest of the water, and add this by portions to the emulsion. Probably our correspondent's "olive oil" is the American variety, which is expressed from cotton seed.]

**An Explosive Mixture.**

SIR,—Can you tell me the reason why the following mixture explodes, which it has done on two occasions after standing two or three days:—

Ammon. bromidi .. .. .	3ij.
Sp. ammon. arom. .. .. .	5iv.
Aque ad .. .. .	3viij.

Yours faithfully,  
W. H. G. (20/65.)

[The ammonium bromide, in presence of free ammonia, undergoes decomposition, a bromide of nitrogen being formed. We cannot with exactitude detail the stages of this decomposition, but, as in our correspondent's case, have observed that explosion takes place, and when vegetable colouring-matter is present that is destroyed. This suggests that the gas which is the immediate cause of the explosion is not carbonic acid gas from the carbonate of ammonia, but an oxide of nitrogen.]

**Apothecaries' or Avoirdupois ?**

22/19. *Carlago* puts this question:—"If, in dispensing, we get, say, mag. sulph., ʒj., ordered, what weight should be used? Troy, or as in B.P. preparations?"

[The only thing that the sign ʒ means is the ounce of 480 grains. The avoirdupois ounce, 437½ grains, is signified by oz. The Pharmacopœia does not recognise the apothecaries' ounce, but in the preface it is stated that "it will be optional with the physician in prescribing to use the symbols ʒ and ʒ, the former representing 20, and the latter 60, grains, if such should be found to conduce to accuracy or convenience." Although this establishes nothing as regards the ounce, nevertheless it does not interfere with the fact that the sign ʒ represents 480 grains.]

**Potas. Citras and Quinine Salts.**

SIR,—Be good enough to state how the following may be dispensed:—

Pot. citrat. .. .. .	ʒiij.
Liq. arsenic. .. .. .	℥xl.
Ferri et quin. cit. .. .. .	ʒj.
Aq. ad .. .. .	ʒviij.

We have dissolved salts separately and mixed the solutions; a dense precipitate is formed in a few hours, which sticks to the sides of the bottle.

Yours,  
T. J. CLARKE.

[The precipitate in this case is partly due to the carbonate of potash in the arsenical solution, but mainly to the citrate of potash. The addition of a sufficiency of citric acid redissolves the precipitate. Liq. arsenic hydrochlor., flavoured as the alkaline preparation, should be used.]

**Essential Oil in Mixture.**

SIR,—Should the following be dispensed as an emulsion or not?—

Pot. bicarb. .. .. .	ʒj.
Ol. cajuput .. .. .	℥xv.
Tinct. zingib. .. .. .	ʒiij.
Aq. ad .. .. .	ʒviij.

M. Cap. ʒss. ter die p. c.

II. (23/49.)

**LEGAL QUERIES.**

22/37. *Observer*.—A question like yours was answered to "Nemo" on March 10, page 333. Read also article on Trade Marks in last Diary, page 257.

22/66. *Subscriber*.—It is impossible to lay down a definite rule about apprentices' holidays. An apprentice is entitled to reasonable treatment, and the master is entitled to reasonable service. An apprentice to a chemist ought to know that the business is one which demands attention on bank holidays and the like, and he must be prepared to give his services at such times to a fair extent.

20/7. *A. S.*—Your corn-paint would undoubtedly be able to medicine-stamp duty if labelled and announced as you show. Most of the pills, too, seem to be liable, taking into consideration both labels and handbills; but to be certain you had better inquire of the Board of Inland Revenue, as we have frequently advised.

22/43. *Zero*.—A will duly attested is valid even though the witnesses are dead or not to be found. It is, however, in some cases a convenience and sometimes a matter of great importance to be able to get at the witnesses to a will.

23/27. *Aspirant*.—Your label is evidently based on that of the other firm, and you have copied their statement *verbatim*. This is a moral infringement on their right, and it may not be a legal one. If they have registered their label at Stationers' Hall they have a copyright in the literary composition of it. But, apart from that, if you put up your packets in style like them, the copying of the text would go a long way in influencing a judge against you if they were to apply for an injunction.

21/13. *Sift*.—There have been no additions to the Poisons Schedule of the Pharmacy Act since 1882, when nuxvomica and its preparations were added. Those poisons named in the schedule are the only ones the sale of which is confined to registered chemists and druggists. For full details (the restrictions refer to THE CHEMISTS' AND DRUGGISTS' DIARY, 1883, or, if you have not got it (and it is not now obtainable), to the Calendar of the Pharmaceutical Society. Prescribing and supplying medicines after diagnosis is an infringement of the Apothecaries Act. The manufacture and sale of medicinal tinctures is allowed to persons not licensed to deal in spirits. The Pharmacy Act does not prevent unregistered persons using coloured carboys and calling their shops drug stores. You should really try to obtain a copy of the CHEMISTS' AND DRUGGISTS' DIARY, as your legal knowledge of the trade is evidently very crude; and we do not care to answer such very elementary questions.

22/49. *Tart*. puts this case:—A purchased certain goods of B, and paid by cheque drawn on a bank at S in favour of B or his order, the cheque being crossed. The goods proved unsatisfactory, and A stopped payment of the cheque. B endorsed the cheque and presented it at a bank W (where neither he nor the drawer had an account) and obtained payment in cash. Can the bank, as holders, maintain an action against A, the drawer?

[There are several ways of crossing cheques, but we assume that A merely crossed his cheque with double lines of the words "& Co." It is a common practice amongst country bankers to cash cheques for people they know, and the fact that the cheque is simply crossed makes no difference. The bankers at W are, therefore, innocent holders for value and can certainly recover the amount of the cheque again A. Perhaps, however, if A shows fight they will make B pay, and then A can set up against B, whatever defence he has about the goods.]

**MISCELLANEOUS INQUIRIES.**

A large number of correspondents ask us for formulae which have already been 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 formulae, 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.

Clay's Chian Turpentine Mixture.—The formula for this will be found in our issue of December 17, 1887, p. 8. (20/28. F. J. A.)

Soluble Essence of Lemon.—All that can be said about this will be found on p. 233 of the current volume. (22/2. Calc. Chlor.)

Fire-grenade Solution.—A formula is given on p. 10 of our issue of July 30, 1887. (19/53. S. F. J.)



**Taralaine.**—See reply to J. B., p. 270 of current volume. (19/2. *Zngari*.)  
**Bitters.**—Formula last given October 22, 1887, p. 529. (18/1. *Aloes*.)  
**King Powder.**—See our issue of November 5 last, p. 5. (20/42. *Menthol*.)  
**Rubber Cement.**—See p. 113 of current volume. (24/1. *W. Q.*)  
**Hair Lotion.**—See p. 94 of this volume. (23/3. *W. D.*)  
**Colourless Tincture of Iodine.**—A formula for this will be found on pp. 284 and 813 of last volume. (23/3. *W. G. D.*)  
**Ripini's Styptic.**—See formula in our issue of Dec. 24, 1887, p. 823.

**Books.**

1213. *West Indies.*—See Reviews in last week's issue. For naming and other matters in reference to leather, see *Wat.* "Art of Leather Manufacture" (Crosby Lockwood, 2s. 6.).  
 23. *P. A.*—Worshoven's Technological Dictionary, English-German and German-English; two parts in one (Walker & Co., 5s.).  
 146. *Seidlitz.*—For names of medical books suitable for chemists, see our issue of January 23, p. 142.

7/1. (1). *H. Cowan.*—The oil which you send is not chauliug oil, which is solid at ordinary temperatures and has a peculiar odour. As far as we can judge from the characters of the sample it closely resembles ben oil (*Moringa sp.*).

**(2) Lanoline Pomade:—**

Lanoline (anhydrous) .. .. 6 oz.  
 Vaseline .. .. 1 oz.

Me. Stir until nearly cold, adding then 6 drops of oil of ylang-ylang.

146. *W. G.* sends a sample of Foot-rot Paste, said to be very efficacious. We find in it a solid fat (lard apparently), oil, resin, turpentine, and acetate of copper. Try the following formula:—

Lard .. .. 4 oz.  
 Linseed oil .. .. 2 "  
 Resin .. .. 1 "  
 Turpentine .. .. 1 "  
 Acetate of copper, in fine powder .. .. 4 "

Me. Melt the lard, linseed oil, and resin together. Rub the verdigris in a mortar with the turpentine, and mix with the fats. If too stiff, soften with equal parts of linseed oil and turpentine.

11. *F. G. G.* sends some crystals which have been deposited from "a solution used for saturating petroleum lamp to render them less combustible. It not only answers this purpose, but makes the flame whiter and almost smokeless. The solution contained (he believes) borax, alum, Prussian blue, and another substance." The crystals sent give no indication of what that substance may be. We find in them a mere trace of borax, but sulphate of alumina and carbonate of soda in abundance. These, with a little adherent Prussian blue, are what the crystals are composed of.

2/8. *Pots.*—The liquid is apparently a solution of asphalt in petroleum spirit, perfumed with nitro-benzol.

1/4. *Rye Lane.*—Brass Paste.—Oxalic acid, 2 oz.; soft soap, 1 lb.; sweet oil, 1/2 lb.; turpentine, 1 oz.; rotten stone, 4 1/2 lb.; boiling water, 16 oz. Dissolve the acid in the water, add the rotten stone, and finally the other ingredients.

1/1. *Menthol* sends a large bottle containing a small quantity of a proprietary preparation of which he wishes us to make an analysis and give formula with quantities of

each ingredient." We have no guarantee whatever that the substance sent is what it is said to be, and should not think of publishing any report of a particular proprietary preparation which was not based on the examination of an original sealed package: this we can purchase if we think it necessary. (2) French perfumes should be diluted with a mixture of rectified spirit (60 o.p.), 20 oz. and distilled water, 3 oz. Four parts of the perfume may be mixed with one part of this mixture without perceptibly altering the character of the perfume, but further dilution is not desirable.

*T. L.*—See reply to "Menthol." Macassar Oil is said to be made with oil of ben (*Moringa sp.*), each pint of which coloured with alkanet is perfumed with oils of rosemary and origanum (white), of each 3j.; oil of nutmeg, 15 drops; otto of rose, 15 drops; oil of neroli, 6 drops; essence of musk, 5 drops. The oil of the seeds of *Schleichera trijuga* is also known as Macassar oil.

13/2. *Codeia.*—Liq. *Eucalypti Rostratæ* should mix perfectly with distilled water, as it is a watery liquid extract of the gum made without the addition of spirit. Alcohol dissolves the "kino red," &c., contained in the gum, which is precipitated on the addition of water. This doubtless accounts for the results which you have obtained.

14/59. *Aurantii.*—Elixir *Aurantii*, U.S.P.—Pour 2 1/2 fluid drachms of oil of orange on half an ounce of absorbent cotton, tease the cotton so as to distribute the oil, then pack it in a funnel and filter through it a sufficiency of a mixture of rectified spirit 22 oz. and water 48 oz., until 65 oz. of filtrate are obtained. In this dissolve 25 oz. of sugar.

13/67. *Ung. Simplex.*—The following is an excellent application for Dandruff:—Hydrag. oxid. flav., gr. x.; hydrag. ammoniat., gr. iv.; ung. camphoræ, ʒss.; ung. simplicis, ʒiiss.; ol. neroli, gtt. iij.; otto rosæ, gtt. ij. Fiat unguentum. To be used as a pomade. Please observe that your other queries are not asked in accordance with the rules of our Correspondence columns, which are strictly observed.

14/8. *Medicus.*—Some years ago Cod-liver Oil Dragees were introduced by Dr. Vivian, a French physician. These are probably what are meant by the granular form. Inquire of Roberts & Co. regarding them.

14/6. *Zingib.*—By "botanic stout" we presume that a dark-coloured herb-beer is meant. Numerous formulae for essences for making this beverage have been published—in last volume, pp. 29 and 304, for example.

17/26. *R. H. Cumine.*—See page 333, under Miscellaneous Inquiries.

14/21. *T. L. Augier.*—The colour developed when tincture of perchloride of iron is mixed with tincture of nux vomica is due to the formation of igasurate of iron; tincture of digitalis contains tannin, therefore gives a blackish colour with ferric salts. The purple colour of mixtures of the perchloride of iron and carbolic acid is also due to combination of the iron with the acid. Observe reply to "Ung. Simplex."

20/26. *Raithby.*—Black Paint for Niggers' Faces.—A mixture of burnt cork and lard is generally used. The following is a more elegant formula:—

Best lamp-black .. .. 1 drachm  
 Cocoa butter .. .. 3 drachms  
 Olive oil .. .. 3 "  
 Oil of neroli .. .. 2 drops

Melt the oil and butter, add the lamp-black, and stir constantly as the mixture cools, adding the perfume towards the end.

**Red Colour for Sausages.**—The red colour for sausages is obtained from cam wood. C. H. SOUTHWELL, Ph.C.

20/3. *X. Y. Z.*—The substance is naphthalin. It has a preservative action, no doubt.

**Tinct. Podophylli Sol.**—This is made by using aromatic spirit of ammonia instead of the rectified spirit of the Pharmacopœia. Another method is as follows:—

Podophyllum root, in coarse powder	..	2 oz.
Light carbonate of magnesia	..	½ "
Proof spirit	..	q.s.

Mix the magnesia and powdered root, and make into a paste with the proof spirit. Pack in a percolator, and after twenty-four hours' maceration percolate with proof spirit until 1 pint of the tincture is obtained.

11/56. *Tenev.*—**Bird-lime.**—The factitious article is made by boiling linseed oil until it becomes viscous; then pour it into water and, if too thick, add a little Archangel tar. From the middle bark of the holly and young shoots of the elder it is made by boiling either of these in water for eight hours, or until soft and tender. Then it is placed under stones in a pit for a few weeks. During this time it becomes mucilaginous. Finally, it is pounded in a mortar until uniform, and preserved under water.

12/33. *Dentist.*—**Platinum Amalgam.**—This is an unusual tooth-stopping, as the amalgam is difficult to prepare. The best way to make it is to dissolve 30 grains of platinum chloride in as little water as possible, then pour into the solution 100 grains of sodium amalgam containing 1 per cent. of sodium. The platinum amalgam is formed on standing, and is to be carefully washed from the products of decomposition. To stop teeth with it, soften the amalgam in hot water, and, the cavity having been thoroughly cleaned out, press in the amalgam bit by bit with the stopping tool until the tooth is filled. It is not a satisfactory stopping; nor, indeed, is any amalgam. Gold-leaf is the best stopping.

18/73. *Alocs.*—(1) The material of which you send us an analysis appears to be very suitable for a cement or plaster, provided it is mixed with a proper proportion of lime. The value of the material can only, however, be determined by actual experiment. (2) A mixture of hard paraffin, 4 parts, and yellow wax, 1 part, coloured with alkanet, is a good modelling material.

19/10. *Cortex.*—See reply to "Spes" in last week's issue.

18/63. *Swan.*—The process of manufacturing Condensed Milk is briefly as follows:—When received at the factory the milk is first carefully strained, then heated by means of hot water to a temperature of 150° to 175° Fahr. and again strained. It is now gradually heated to the boiling point, sugar added in the proportion of 1½ lb. to each gallon of milk, then the whole carefully condensed to about a fourth of its bulk in a vacuum-pan. At this point the milk is run into receiving cans, kept cool by means of cold water, and stirred constantly until a temperature of 70° Fahr. is reached—then it is tinned.

21/35. *Kingston.*—Condy's Fluid is a solution of permanganate of soda.

19/47. *Perplexed.*—To clarify the Lime Juice try the following plan:—Soak ½ oz. of Russian isinglass in a pint of the juice, stirring frequently until the isinglass ceases to swell. Then transfer the isinglass to three or four gallons of the juice, mix well, and set aside to settle. The addition of a certain proportion of alcohol is necessary to preserve the juice clear, and a little salicylic or boric acid is also beneficial.

19/52. *F. G.*—To become an L.S.A. the ordinary medical curriculum of forty-five months' study must be gone through, and the subjects to be passed are essentially the same as those of other examinations for a medical diploma. The Preliminary and Minor examination subjects are, as recently explained, accepted *pro tanto* in lieu of the corresponding subjects of the medical Preliminary, but not the professional examination. For full particulars regarding medical study see our last Educational number (September 17, 1887).

*Sussex* sends a sample of Writing Ink made according to the formula given in our issue of February 4, which is said to be the formula of Duncan & Flockhart's ink. The ink writes a pale green colour. That is the principal objection to this ink, but "Sussex" will have noticed that on exposure the writing becomes of a jet-black colour. The colour may be made into a more definite blue by adding to each pint of the ink 60 to 90 grains of indigo carmine; shake well occasionally for a day, and allow to settle. This is the plan in ink already made, but in making it afresh omit the indigo and half of the sulphuric acid.

**Black Eyes.**—*A Newcastle Correspondent* (20/25) informs us that Dr. Jeaffreson, at a recent lecture there on the "Eye," said the speedy treatment for a black eye was always at hand, namely, the application at the cold lamp-post.

20/49. *March.*—**Cocaine for Tooth Extraction.** One grain of pure hydrochlorate of cocaine dissolved in 15 minims of water is injected into the gum by means of a hypodermic syringe a few minutes before the operation. See remarks by Mr. Stocken on page 364 of our last issue.

22/41. *F. C.*—**Spt. Æther. Hoffmann.**—You will notice by referring to the Pharmacopœia that Hoffmann's anæsthetic is spt. æther. comp. The German Pharmacopœia, however, gives the simple solution of ether in spirit.

20/33. *J. R. G.*—**Gum Asphalt** is ordinary asphalt, packed and purified by melting and straining.

21/18. *F. D.* (Budapest).—(1) **Lavender Water.**—Oil of lavender, 4 drachms; oil of bergamot, ½ drachm; oil of lemon, ½ drachm; musk, 2 grains; light carbonate of magnesia, 2 drachms; rose water, 2 oz.; rectified spirit, 1 oz. Allow to stand for at least a fortnight, shaking occasionally, and filter. (2) **Lavande Royale Ambrée.**—Oil of lavender, ½ oz.; essence of ambergris, 1 oz.; tincture of musk, 1 oz.; oil of neroli, 10 drops; rectified spirit to 30 oz. Digest for two weeks and filter.

22/66. *Subscriber.*—You cannot make a Graph Ink with ordinary writing ink; aniline colours must be used, e.g. aniline violet, 5j; methylated spirit, 5vj; water, 5ij; oil of lavender, 2 drops. Mix and dissolve.

22/2. *Capsicum.*—Instructions for the manufacture of lozenges and jububes are given in "The Art of Pharmacy" (C. & D. DIARY, 1887), also in "Baily's Physician's Pharmacopœia" (Churchill, 3s. 6d.). See also the paper by Mr. Wyatt, of Liverpool, which we published a few weeks ago.

#### Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

20/67. Formula for Brown's Mixture.

10/20. Formula for "Bay Leaf" (a preparation containing cloves) as used by barbers after shaving.

176/8. A Kingston-upon-Hull correspondent would like to know what is used in the large London dairies for separating the curd from butter-milk. His customer uses alum (which is unsatisfactory) and objects to mineral acids.

# YOU DIRTY BOY!



# PEARS

## PRICE LISTS AND SHOW CARDS

*Sent, Carriage Free, on application to the Depots.*

**LONDON :** 71-75 New Oxford St., W.C., **LONDON.**  
**NEW YORK :** 365 & 367 Canal Street, **NEW YORK.**  
**MELBOURNE :** 132 Collins Street West, **MELBOURNE.**

# CYANIDE OF POTASSIUM

FOR GILDING AND SILVERING.

**A. ELWART**, Manufacturer,  
29 Rue des Francs-Bourgeois, PARIS.

## MORRIS & CALLARD

PONTAMMAN CHEMICAL WORKS,  
AMMANFORD, R.S.O., CARMARTHENSHIRE,  
MANUFACTURERS OF

**ACETIC ACID, P.B., ACETIC ACID FORT, SP. GR. 1.040,**  
WHITE AND GREY ACETATE OF LEAD, ACETATE OF SODA,  
PURE UNADULTERATED WOOD NAPHTHA, SULPHURIC ACID, AND CHARCOAL.

PRICES AND SAMPLES ON APPLICATION.

*The Most Extensive Peppermint Works in the World. Established A.D. 1869.*  
EXPOSITIONS INTERNATIONALES GRAND PRIZE MEDALS.

**A. M. TODD**, GROWER, DISTILLER,  
and REFINER of  
**CRYSTAL WHITE OIL PEPPERMINT.**

**BB** This quality may now be ordered through the principal Wholesalers of Great Britain, at special introductory prices, in sealed Bottles of 1lb., 8oz., and 4oz. It is positively guaranteed not only in every respect the highest quality manufactured, but also the most profitable and economical in use—less being required—while the highest possible results are uniformly and quickly obtained. With the immense adulterations in Essential Oils guaranteed as pure by houses of supposed respectability, your protection lies in the guarantee of a Manufacturer whose life has been devoted to the advancement and protection of quality.

Notice that all genuine containers have my name impressed thereon, being sealed with Metallic Caps and guarantee of quality over my signature. (See larger advertisement in next CHEMIST AND DRUGGIST.)



SPECIAL AGENTS—

Burgoyne, Burbidges & Co., London; Jas. Woolley, Sons & Co., Manchester.

## PELLETIER'S QUININI.

Sulfate de Quinine des trois Caches,  
Pelletier, Delondre et Levailant.

SOLE AGENT—

**CHAS. BRUMLEY**,  
7 Mincing Lane, LONDON, E.C.

**DUNCAN, FLOCKHART & CO.**  
WHOLESALE AND EXPORT DRUGGISTS, EDINBURGH.

## CHLOROFORM.

Prepared from Pure and Methylated Spirit.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles closed and luted (stoppers attached), and in hermetically sealed flasks when required.

*N.B.*—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.

**CASCARA SAGRADA CAPSULES,**

In Boxes, at 1/6 and 2/6. 14/- and 24/- per dozen.

Each Capsule equal to half a teaspoonful of Fluid Extract of Cascara Sagrada. The chief drawback to the use of this valuable drug, its unpleasant bitterness, is obviated when taken enclosed in Capsules.

# GOLD MEDALS,

INTERNATIONAL INVENTIONS EXHIBITION, LONDON, 1885.  
INTERNATIONAL EXHIBITION, PARIS, 1885.  
INTERNATIONAL EXHIBITION, LIVERPOOL, 1886.

## IMPROVED HIGH TEST

# BICARBONATE OF SODA, SODÆ BICARB. PULV.

# CRYSTAL CARBONATE

The Best Preventative of Boiler Incrustation, and the **PUREST**  
and **CHEAPEST** form of

# SODA CRYSTALS.

20 cwts. of Crystal Carbonate contains as much Alkali as 48 cwts.  
of Soda Crystals.

Price of 20 CWTS. of

Price of 48 CWTS. of

**CRYSTAL CARBONATE,**

**SODA CRYSTALS**

F.O.R. WIDNES,

(At £2 15s. per ton),

F.O.R. WIDNES,

**£5 1s. 6d.**

**£6 12s. 0d.**

**GASKELL, DEACON & CO.,**  
**WIDNES, ENGLAND.**

# DR. LALOR'S PHOSPHODYNE



For TWENTY-FIVE YEARS has maintained its world-wide reputation as

THE ONLY SAFE RELIABLE PHOSPHORIC REMEDY ever discovered for the Permanent Cure of Brain Wreckage, Paralysis, Sleeplessness, Harassing Dreams, Premature Decay of Vital Power, and all Functional and Diseased Conditions of the System dependent upon the Deficiency of the Vital Forces. It

Cures Dyspepsia, Nerve and Heart Disease.

Cures Kidney and Liver Complaints.

Cures all Blood Disorders.

Cures Consumption and General Debility.

Checks all Wasting of the Vital Forces, from whatever cause arising.

THE EFFECT of this Standard Phosphoric Remedy in Nervous Debility and its Kindred Evils is Immediate and Permanent, all the Miserable Feelings and Distressing Symptoms disappearing with a rapidity that is REALLY MARVELLOUS.

## DR. LALOR'S PHOSPHODYNE

HEALTH, STRENGTH, AND ENERGY.

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and the only Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Marks Act.

THOUSANDS of unimpeachable Testimonials from all parts of the World, and from the highest Medical Authorities, prove conclusively the Verdict Universal that in the World of scientific research no other Phosphoric Preparation has received such exalted praise and distinguished recognition.

Full Printed Directions for the guidance of Patients in the Self-Treatment of the above Diseases are enclosed with each Bottle.

Sold in bottles at 4s., 6d., and 11s., by all Chemists throughout the World.

MANUFACTURED ONLY AT

**DR. LALOR'S PHOSPHODYNE**  
LABORATORY,  
HAMPSTEAD, LONDON, N.W.

## ADVANCE WITH THE TIME!

Every Chemist should put up SYR. HYPOPHOSPH. CO., and push it as the most modern form of "Chemical Food" and "Quinine Tonic."

YEATMAN'S

## SYR. HYPOPHOSPH. COMP.

Is the STRONGEST and MOST ELEGANT Syrup yet offered.

ONLY CHEMISTS ARE SUPPLIED.

It contains in each fluid drachm—

Hypophosphite of Lime .....	1 g.
" " Soda .....	2 g.
" " Potassa .....	1 g.
" " Iron (Protoxide).....	1 g.
" " Manganese.....	$\frac{1}{2}$ g.
" " Quinine .....	$\frac{1}{4}$ g.
" " Strychnine .....	$\frac{1}{100}$ g.

SLIGHTLY ALKALINE.

The composition may be varied to suit buyers. Diluted with an equal bulk of Syrup it possesses the average strength of the advertised Syrups. As HYPOPHOSPHITE, and NOT phosphosphate of Iron, is used in this preparation, no insoluble precipitate occurs.

PRICES ON APPLICATION.

**F. J. YEATMAN, M.P.S.**  
141 KENTISH TOWN ROAD, LONDON, N.

# W<sup>M</sup>. BUSH, SON & CO.

YORK STREET, WALWORTH, LONDON, S.E. Established over 40 Years.

Wholesale and Export Chemists. Manufacturers of Concentrated Fruit Essences and Flavours of every description. Colour Extracts for Confectionery. Citrate of Magnesia, &c. Importers of Finest Super Essence of Lemon and all Essential Oils, &c.

PRICE LIST AND SAMPLES ON APPLICATION. TELEGRAPHIC ADDRESS—BUSHWORTH LONDON.

## DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS

# BARRON, SQUIRE & CO.

(LATE DREW, BARRON, & CO.),

WHOLESALE & EXPORT DRUGGISTS,  
BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

*Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.*

See INDEX TO ADVERTISEMENTS, pp. 17-19.

# CITRATE OF MAGNESIA.

IN THE SEASON OUR OUTPUT EXCEEDS

## ONE TON PER DAY

and during the coming Summer we have every prospect of increasing this amount. We shall be happy to give prices on application.

**SPECIAL QUOTATIONS TO LARGE BUYERS.**

*The following is one of the many Testimonials we receive:*

90 Western Road, Brighton,

*January 14, 1888.*

MESRS. LORIMER & Co.

GENTLEMEN,—We have pleasure in informing you that having tried the Citrate of Magnesia of all the makes that have been offered to us, taking Bishop's as a standard, we find yours to be the only one comparing favourably with the same, and that it quite equals, if not surpasses, it.

Yours truly,

HEADLAND & CO., CHEMISTS.

**OUR NEW 1888**

## COD LIVER OIL

is now in stock, **QUALITY SUPERB.** EACH CASK carefully selected from the choicest Norwegian Brands. **PRICES LOWER than any previous season.**

QUOTATIONS, IN BULK OR BOTTLED, ON APPLICATION.

We most strongly recommend Chemists to buy their NEW Oil bottled ready for Sale. We supply it in all sizes, bearing customers' own labels when preferred, and guarantee it, when bottled by us, to remain sweet and fresh.

**LORIMER & CO., BRITANNIA ROW, ISLINGTON, LONDON.**

NEVER FAILING! SELF ADJUSTING!! PATIENCE SAVING!!!

# R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c

Prices—2 oz. 21/-, 3 oz. 24/-, 4 oz. 23/- per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

## R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,  
THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

# WYLEYS' GELATINE COATED OVAL PILLS.

The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List on application

Gross Botts.		Gross Botts.		Gr Botts.	
Bismuth. (Wyleys'),	Pepsin. Co. gr.; Pepsin Porci, 1 gr.; Ferr. Redact., 1 gr.; Strychnin, $\frac{1}{24}$ gr.	Ferri Hypophosph. Comp. (Wyleys'). Each pill represents 1 fluid drachm of Syrup of the Hypophosphites...	3/6	2/6	18
Calcii Sulphid.	$\frac{1}{10}$ , $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{1}{2}$ , 1 gr.	Ferruginous (Bland's), 3 and 5 gr	1/8	1/8	2/6
Cascara Sagrada (Ext.),	2 gr.	Ferri Quininae et Strychninae Phosph. (Wyleys'), representing Easton's Syrup	2/-	3/-	2/6
Ergotin. Comp.	gr. Ergotin, 1 gr.; Ferri Sulph. Exsic., 1 gr.; Ext. Hellebor., 1 gr.; Ol. Sabinae $\frac{1}{2}$ m.; Ext. Aloes Soc., 1 gr....	Hydrarg. et Arsenic. Iodii (Wyleys'). Each pill equivalent to 5 minims of Donovan Solution ...	3/-	2/6	2/6
<b>WYLEYS &amp; CO., COVENTRY.</b>					
LONDON ADDRESS—1a BURY STREET, ST. MARY AXE, E.C.					

# C. R. HARKER, STAGG & MORGAN

WHOLESALE & EXPORT DRUGGISTS

MANUFACTURING CHEMISTS

DISTILLERS & IMPORTERS of ESSENTIAL OILS

STANDARDIZED AND GUARANTEED DRUGS AND PREPARATIONS FOR HOME AND EXPORT TRADE.

TEMPORARY PREMISES—

72 and 74 GOLDEN LANE, BARBICAN, LONDON, E.C.

REGISTERED ADDRESS FOR TELEGRAMS—"EDULCINE LONDON."



# NELL'S PURE CRUSHED LINSEED.

Linseed of the very finest quality only used, and sold at lowest wholesale prices.

For Samples and Quotations write to

## R. J. NELL,

SEED CRUSHING MILLS,

LOUTH, LINCOLNSHIRE.



**GOLD MEDALS — DUBLIN, 1882; BOSTON, 1883;  
LONDON (INTERNATIONAL EXHIBITION), 1884.**

# SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of  
**ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.**

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1s. size containing near  
Double the quantity usually sold at that price), at 1/, 2/6, and 3/6 each.

**CAUTION.**—Observe that the Signature of the Inventor is on every label.

# SIR JAMES MURRAY'S FLUID CAMPHOR

A valuable remedy in cases of SLEEPLESSNESS and WEAK NERVES. Bottles, 1/ and 2/ each.

**SIR JAMES MURRAY & SON, Chemical Works, Temple Street, Dublin.  
BARCLAY & SONS, 95 Farringdon Street, London.**

# NITRO-GLYCERINE TABLETS.

Tabellæ Nitroglycerini, B.P. 1885 (Martindale).

Authority of the Medical Council, the compilers of the British Pharmacopœia have adopted and made OFFICIAL Nitroglycerine Tablets, as  
announced by W. M. during the last nine years.

Nitroglycerine is in a perfectly fixed solution in the Chocolate. The Tablets weigh ONLY 2½ grains each, an ounce containing about 170 doses.  
Sold at the following prices to the trade, subject to—

In Boxes, Retail ... .. 2s. 6d. and 4s. 6d. each.  
" Trade ... .. 24s. and 43s. per doz.

REDUCED PRICE FOR HOSPITALS AND DISPENSING:

In Bottles, Retail, 2-oz., 9s.; 4-oz., 14s.; 8-oz., 21s.; and 16-oz., 35s. each.  
" Trade, " 6s.; " 10s.; " 16s. 8d.; " " 27s. 6d. "

REDUCED IN PRICE:

Capsules of Iodide of Ethyl, covered with Silk, 8 in a Box, Retail, 2s. 6d.; 24s. per doz.  
" " Nitrite of Amyl, " " 12 " " 2s. 6d.; 24s. "

**MARTINDALE, PHARM. CHEMIST, 10 New Cavendish St., Portland Place, W.**

# MARTLETT HOOPER & CO., MANUFACTURING CHEMISTS, 43 KING WILLIAM ST., LONDON BRIDGE, E.C.

Call the attention of the trade to the following reliable Specialities. Orders can be filled either direct or through any Wholesale House.

## HOOPER'S CAPSULES (FLEXIBLE).

Sagrada, triple strength .. 15/ doz.  
" Oil .. .. 9/ "  
" .. .. 9/ "  
" .. .. 7/6 "  
" and Cubeb .. .. 12/6 "  
" Cubeb and Buchu .. .. 12/6 "  
" Sandal and Cubeb .. .. 12/6 "  
" Eucalypt Extract .. .. 15/ "  
" Oil (English) .. .. 16/6 "  
" .. .. 10/6 "  
" .. .. 9/ "

These capsules are boxed in a most attractive  
form, contain pure drugs only, and can be relied  
on. Special quotations for bulk quantities.  
Combination of oils, pastes, or powders filled.

Hooper's X.L. Cachous, slide boxes .. 13 6 grs.  
" Original Cachous, brass boxes 2/9 doz.  
" Ladies' Cachous .. .. 2/6 "  
" Cachous, paper boxes .. .. 2/6 "  
" " slide boxes .. .. 3/ "  
" Fumigating Pastilles .. .. 2/9 "  
" Asthma Cure .. .. 5/6 "  
" Carbolic Acid .. .. 5/6 "  
" Creasote .. .. 5/6 "  
" Eucalyptol .. .. 5/6 "  
" Thymol .. .. 5/6 "

## HOOPER'S COMPRESSED PELLETS.

Ammonium Bromide .. .. 5/6 lb.  
" Chloride .. .. 3/ "  
" Cocaine, various strengths, from .. 14/ "  
" Potassium Chlorate .. .. 2/ "  
" " and Ammonium .. 4/2 "  
" " " and Borax .. 2/9 "

## HOOPER'S COMPRESSED PELLETS (continued).

\*Potassium Bicarbonate .. .. 2/6 lb.  
" Bromide .. .. 4/6 "  
\*Sodium Bicarbonate .. .. 2/6 "  
Soda Mints .. .. 4/6 "  
\*Voice .. .. 4/6 "

We also supply in neat slide boxes, handsomely labelled,

Potassium Chlorate .. .. at 2/ doz.  
Kinds marked thus \* .. .. 3/ "  
Soda Mints (in bottles) .. .. 4/ "  
Digestive Pellets (Bottles) .. .. 7/6 "  
Hooper's Sea Sickness Pellets .. .. 10/6 "

Quotations given for manufacturing Compressed  
Pellets from any formula.

# NOTICE.

There is absolutely no Acid or Alkali used in the manufacture of

# PETROLINA.

## PETROLINA

Is a pure product of Petroleum deodorised by the action of superheated Steam and Air, and decolorised by filtration through Bone Charcoal.

## NEVERTHELESS,

PETROLINA is as Cheap as any of the inferior Jellies produced by the less expensive and highly deleterious Acid process.

## THEREFORE,

# BUY THE BEST,

When it is also

# THE CHEAPEST.

SAMPLES, PRICE LIST, AND FORMULÆ FREE,  
and in the Patent Self-opening Tins containing 1 lb.  
packed in Oak Kegs of 112 lbs., 56 lbs., or 28 lbs.,  
containing 14 lbs.

ORDER PETROLINA THROUGH ANY WHOLESALE DRUGGIST OR DRYSALTER.

**E. A. DE PASS & CO.,** 3 Coleman Street, London, E.C., **SOLE AGENTS.**

# GENUINE EAST INDIA MUSTARD SEED OIL

GUARANTEED ABSOLUTELY PURE AND UNADULTERATED.

The ordinary 1/- size, 50/- a gross; also an extra large size, to be retailed at 2/-, at 90/- a gross, leaving a good margin of profit to the retailer. As it is now universally being advertised, there is setting in an increased public demand.

**IMPORTANT CONCESSION!!!—Note:** On all first orders for an original case of each size, an extension of credit of six months will be afforded, thus enabling the retailer to secure all the benefit of selling every bottle before paying a single shilling out of his own pocket.

Artistic Window Tablets, Stationery, &c. with each order.

### CERTIFICATE OF ANALYSIS.

"I hereby certify that this is a genuine unimixed Mustard Seed Oil.—(Signed) A. NORMAN TATE, F.I.C., F.O.S., Liverpool, August 1887."

**GREAT REDUCTION! — NEW AMERICAN OIL OF PEPPER-MINT,** NOT deprived of its Menthol, 8s. 9d. per lb.

In original 22-oz. bottles.

**CHILIAN HONEY**— $\frac{1}{2}$ -cwt. tins, 3d. per lb.

**Non-freezing, Finest Norwegian COD-LIVER OIL,** guaranteed premier quality; 25-gallon tin-lined barrels for £5, or in  $4\frac{1}{2}$ -gallon tins at 4s. 6d. per gallon.

**DRUGGIST'S WHITE GLYCERINE,** 12·60—9d. per lb., 60-lb. tins (expected to be dearer).

**ESS. LEMON (NEW)**—4s. 6d., 10-lb. tins.

**DALMATIAN INSECT POWDER** in Original 28-lb. tins at 1s. 2d. per lb.

**P. RHEI, E.I. ELECT.**—7-lb. bottles, 3s. per lb.

**NOTE.—ALL PACKAGES FREE, and delivered to RAILS FREE.**

**SENNA T.V.**—56-lb. bags, 3½d.; and 2-cwt. bales, 3 per lb.

**CIRCISSIAN OIL**—40-gallon barrel, bright and clear as

**COLZA OIL**—1s. 6d. per gallon (for Hair Oil, &c.) sample 9-gallon tin, for 15s.

**Special—PETRO. JELLY** (firmer than VASELINE)—4d. per lb., 40-lb. tins.

**“STRUCK DOWN DEAD” VERMIN KILLER,** gross case of threepenny size carriage paid for 10s. 6d.; poison Register” free.

**PURE CRYSTAL MENTHOL CONES,** MOUNTED neat turned-wood boxes for the pocket. 1 gross free, per Parcels Express, TO ANY PART OF THE WORLD on receipt of P.O.O. for 21s.; id. each—144 sixpenny size delivered free at 1½d. each.

**GOOD MERCHANTABLE QUALITY GUARANTEED.**

**E. R. BANNER,** Drug Merchant, 56 Boaler St., **LIVERPOOL.**

# FREEMAN'S CHLORODYNE

THE ORIGINAL AND ONLY TRUE.



It is the Greatest Medical Discovery of the present Century and is regarded as a boon to mankind.

It is the best known remedy for Coughs, Colds, Consumption, Whooping Cough, Bronchitis, and Asthma.

It effectually checks and arrests those too often fatal Diseases—Diphtheria, labetes, Fever, Croup, Ague, &c.

It acts as a charm in Diarrhoea, and is the only known Specific in Cholera and Dysentery.

It effectually cuts short all attacks of Epilepsy, Hysteria, Palpitation, convulsions, and Spasms.

It is the only Palliative in Rheumatism, Gout, Cancer, Tooth-ache, Neuralgia, Sciatica, Lumbago, &c.

It rapidly relieves pain from whatever cause, allays the irritation of Fever, soothes and strengthens the system under exhaustive diseases, restores the deranged functions, stimulates healthy action of the secretions of the body, gives quiet and refreshing sleep, and marvellously prolongs life. It may be taken by old and young at all hours and times, according to the Directions.

It is extensively used by Medical Men in their official and private practice, at home and abroad, who have given numerous written testimonials of its wonderful efficacy.

## SPECIMEN TESTIMONIALS.

From JOE TANNER, M.D., L.R.C.P., M.R.C.S., L.S.A., L.M., *Physician to Farrington Dispensary, London; Physician to the Rev. C. H. Spurgeon's Metropolitan College, &c.*

102 HARLEY STREET, CAVENDISH SQUARE, W.

'It gives me great pleasure to bear testimony in favour of FREEMAN'S Chlorodyne. I have prescribed it extensively, and in cases of Asthma, Chronic Nephritis, the last stage of Phthisis, and the Winter Cough of the aged, I have never found any substitute or chemical combination its equal.'

From J. DODD SWALLOW, M.D., M.R.C.S., Eng.; L.A.S.; *Medical Officer to the London City Missions, &c., &c.*

213 CLAPHAM ROAD, LONDON, S.W.

'I have great pleasure in stating that I am constantly prescribing FREEMAN'S Chlorodyne. In Consumption and Asthma, as a Sedative; in Cancer, and in cases of Diarrhoea and Dysentery, I am daily witnessing its striking effects, and believe that the thanks of the profession are due to Mr. FREEMAN for his efforts to bring prominently before the profession so valuable and *reliable* a remedy as the Chlorodyne which bears his name.'

264 PETIT SAICONNEX, GENEVA, SWITZERLAND, January 6, 1886.

DEAR SIR,—I send by same post £1 16s., or 46 francs, for 8 bottles, value 4s. 6d. each. Your Chlorodyne has been used in a case of Cancer, notorious at St. Leonards-on-Sea, where Dr. Penhall and Dr. Harvey attended, and the case was given up as incurable, for the leg ought to have been cut off, and the patient too weak to stand operation. Now, Dr. Metcalfe said the same thing, and your Chlorodyne cured the person, which, indeed, is my servant, after six years being still alive and perfectly well. I think it is due to you, as the Inventor of the remedy, to state the fact, that others in similar circumstances may never despair as long as life is in the body. I authorise you to use my letter as you may think best, and also my name, to present the case being humbugged by other rubbish, &c.

To MR. RICHARD FREEMAN.

Yours truly,

WALTER SAVAGE LANDOR.

Sold by Chemists and Patent Medicine Dealers all over the world, in bottles, 1s. 1½d.; 2 oz., 2s. 9d.; 4 oz., 4s. 6d.; half-pints, 11s.; and pints, 20s. each; and by the Inventor, RICHARD FREEMAN, 70 Kennington Park Road, London, S.E.

*Purchasers are cautioned not to have palmed upon them any substitute. See that the Trade Mark, "The Elephant," is on the wrapper, &c., and that the words Freeman's Original Chlorodyne are engraved on the Government Stamp, which is the only true Chlorodyne.*

N.B. Lord Chancellor Selborne, Lord Justice James, and Lord Justice Mellish decided in favour of Freeman's Original Chlorodyne, and against Brown and Davenport, compelling them to pay all costs in the suits. See *Times* of July 24, 1873.

## THE

# HOP BITTERS COMPANY

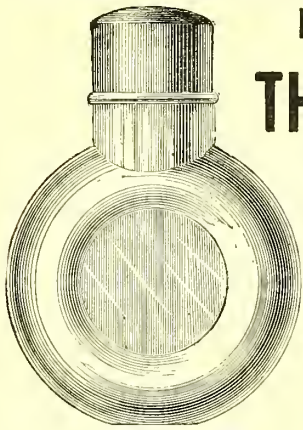
(LIMITED)

Have introduced a 2/6 size Bottle, which is in great demand.

Send to your Wholesale Dealer for price, and put in Stock.

RETAIL PRICES in FUTURE,

2s. 6d. & 4s. 6d.



# EXTRAORDINARY CHEAP LINE!! THE WATCH SMELLING-SALT BOTTLE

PLAIN OR FLUTED.

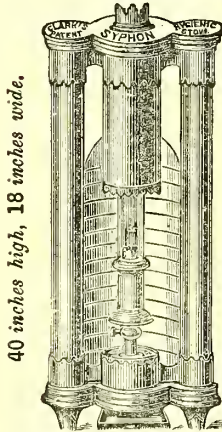
These Bottles are fitted with BEST SCREW NICKEL CAPS, lined with Whers, and are the most wonderful value ever offered. A trial order will prove is fact.

PRICE, IN BEST WHITE FLINT OR ASSORTED COLOURS, **12/6** PER DOSS, in not less than 1 gr. lots

Orders may be sent through any of the Wholesale Houses, or direct to

**E. A. HEARN & CO.,** Manufacturers of Glass Bottles of every description.  
381-3 KINGSLAND ROAD, LONDON, E.

The annexed Illustration shows exact size of above-mentioned Bottle.



40 inches high, 18 inches wide.

## THE "SYPHON" (REGISTERED TITLE) (CLARK'S PATENT) GAS HEATING STOVES.

NO FLUE REQUIRED.  
No smoke. No smell. No dirt or trouble. No danger. All sulphurous vapours are condensed inside the Stoves, and passed off as a liquid into tray beneath. The ONLY SAFE ones for use in Hospitals, Sick Chambers, Greenhouses, Bedrooms, Halls, Shops, Offices, Churches, Schools, &c. **BEWARE OF IMITATIONS.**

Price Lists and Terms on application to  
**S. CLARK & CO.,** Patentees  
"Syphon" Works, Park St.,  
ISLINGTON, LONDON, N.

## DISPENSING BOTTLES

### SPECIAL NOTICE.

We now supply four kinds of Bottles, 6 and 8 ounces, at 7/6, 8/6 and 10/- per gross respectively; each kind is first-rate for the money. Other sizes equally low. 14-ounce Vials, 4/3 per gross. Feeding Bottles, fitted complete, "The National" and "The Jubilee," Screw Neck and Black Fittings, 3/6 per dozen; first-rate bottles. A sample of any kind forwarded on application.

## I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS  
25 Francis Street, Tottenham Court Road, LONDON, W.C.  
Established upwards of 50 years. Bankers—London and Westminster.

**CHEESE COLOR.**  
(ANNATTO.)

**BUTTER COLOR.**  
(DANISH PROCESS.)

**CHEESE RENET.**  
(PURE CALF RENNET.)

# THE "EUREKA" COMPANY MANUFACTORY OF DAIRY PREPARATIONS.

PURITY, UNIFORM QUALITY, AND STRENGTH GUARANTEED.

These preparations will be found to be of the most excellent quality, pure and strong, and, manufacturing these specialities only and on a large scale, we can offer special advantages to buyers of bulk.

It will pay to write for samples, and compare quality and price with what you are using.

LONDON OFFICE for U. K. and Colonies  
54 CRUTCHED FRIARS, E.C.

**MESSRS. JOHNSEN & JØRGENSEN,**

To whom please apply for samples and particulars.

AGENTS WANTED WHERE NOT REPRESENTED.

# PUMILINE.

THE ONLY PURE ESSENCE AND  
EXTRACT OF SNOW-GROWN  
PUMILIO PINES.

FOR GOUT, RHEUMATISM, SORE THROAT, CHEST AFFECTIONS

SIR MORELL MACKENZIE wrote, December 9, 1887:—"I have much pleasure in stating that I have made use of Oleum Pumilionum during the last twenty-five years that I consider it a most valuable preparation. It acts as an admirable tonic to the mucous membrane of the air passages in cases of chronic bronchitis and laryngeal catarrh. I am glad, therefore, to hear that the remedy is about to be used on a large scale, and I have no doubt the results will be highly satisfactory."  
(Signed) "MORELL MACKENZIE M.D."

PUMILINE ALONE, with the single exception of Pinol, possesses the physical and chemical properties which give it the faculty of being administered internally with SAFETY. It is, therefore, essential for Chemists to use Pumiline, as it is the only preparation obtained from snow-grown Pumilio Pines.

FOR TRADE PRICE LISTS, PAMPHLETS, ANALYTICAL REPORTS, &c.—

**G. & G. STERN, 11 Billiter Square, LONDON, E.C.**



GENERAL VIEW OF JENSEN'S COD LIVER OIL FABRIKS, BRETTESSNOES, LOFODEN ISLANDS.—*Pictorial World.*

**Arrival of New Season's Cod Liver Oil** (Immediate Delivery).  
 Samples from a bulk of over 1,000 Barrels (not mere samples made to sell from) now ready.  
**HEPZ & COLLINGWOOD, 101 LEADENHALL STREET, LONDON, E.C.**

**FLUID CONFECTION OF SENNA.**

Extract from LANCET:—"In this preparation the disagreeable taste of senna is remarkably well masked. We think it a great improvement on the old confection."

Extract from BRITISH MEDICAL JOURNAL:—"The Fluid Confection of Senna now made by Messrs. Waugh & Co., of Regent Street, is a palatable preparation which will be found useful in the treatment of habitual constipation. We have given it a fair trial, and find that it is popular with patients."

In Bottles of 4, 8, 12, and 24 fluid oz., or in larger quantities to order.

**GEORGE WAUGH & CO.,**  
 177 REGENT STREET, W.

**The Mormon Elder's DAMIANA WAFERS**

THE MOST POWERFUL INVIGORANT EVER PRODUCED.

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.

**F. B. CROUCH,**

202 Grand Street, New York City; London Depot, 51 Strand, W.C.

Hovenden & Son, Sanger & Son, Barclay & Sons, Edwards & Son, and all Wholesale Druggists.



**SULPHATE OF QUININE**

(GOLD AND SILVER BRAND)

**QUININE FACTORY AUERBACH**

(DR. SEYFERTH).

*Certified by Professor Fresenius, of Wiesbaden, as equal to the best preparations of other marks.*

**DEUTSCHE GOLD AND SILBER SCHEIDE ANSTALT**

(VORMALS ROSSLER),

**FRANKFORT-ON-MAINE.**

CYANIDE OF POTASSIUM,  
 IODIDE OF POTASSIUM,  
 BROMIDE OF POTASSIUM,  
 NITRATE OF SILVER,  
 CHLORIDE OF GOLD,  
 SULPHOCYANIDE OF BARIUM,

IRON Reduced by HYDROGEN,  
 TARTARIC ACID,  
 HYDROCHINON,  
 STRONTIA,  
 MAGNESIA, and ALL OTHER

CHEMICALS for PHOTOGRAPHIC and PHARMACEUTICAL PURPOSES, of the Best Quality.

Sole Agents—**OSCAR ANDREAE & CO.**

26 Great Tower Street, LONDON, E.C.

# AYRTON & SAUNDERS,

Designers and Manufacturers

OF

## High-Class Artistic Specialities

FOR CHEMISTS AND DRUGGISTS;

WHOLESALE AND EXPORT DEALERS IN

PATENT LINT, PLAISTERS, AND COTTON WOOL,

MEDICAL GLASS BOTTLES,

SURGICAL INSTRUMENTS, TRUSSES, &c.

HARD AND SOFT WOOD TURNERS;

MANUFACTURERS OF ROUND, SQUARE, AND OVAL BOXES,

IN PAPER, WILLOW, AND CHIP;

IMPORTERS OF

## AMERICAN, GERMAN, & FRENCH BOXES;

AND GENERAL DEALERS IN

DRUGGISTS' SUNDRIES of every description.

SPECIAL QUOTATIONS TO LARGE BUYERS FOR CASH.

WAREHOUSES—

149 & 153 DUKE ST.




FACTORY—

62 PARR STREET,

## LIVERPOOL.

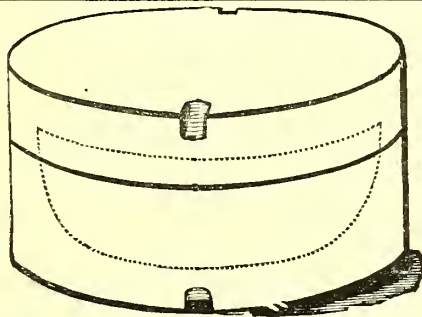
All Letters, Orders, &c., to be addressed to the Firm, 149 DUKE STREET.

 AYRTON & SAUNDERS will be glad to undertake Foreign Agencies and Commissions, and to buy and ship for Firms who have no representatives in England, and as they keep themselves thoroughly abreast of the times their friends can rely upon being well posted up in all the Novelties and Specialities that are being constantly introduced.

# WILLIAM TOOGOOD'S SPECIALITIES.

WAREHOUSE AND SHOW ROOM,  
BURLINGTON BUILDINGS,  
BEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S  
IMPROVED PATENT  
EARTHENWARE  
COVERED POTS



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.

ORDINARY THICKNESS—										
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—										
$\frac{1}{2}$	$\frac{3}{8}$	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.	

Are glazed to be the most perfect and convenient yet offered to the Trade.

TOOGOOD'S  
BUNT-IN POTS,  
FOR COFFEE, CREAM, TOOTH PASTE, &c.



TOOGOOD'S  
IMPROVED PERCOLATORS.

Nos.	1	2	3	4	5
Capacity	12	25	66	100	160 ozs.
	2/	3/	4/6	6/	7/ each

SUPPORTS FOR ABOVE IN  
STAINED WOOD.

Nos.	1	2	3	4	5
	1/9	2/	3/	3/	3/6 each.

NORMAN'S  
PATENT PILL COATER



The cheapest and most efficient machine yet introduced, combining simplicity with portability, and enabling small quantities of pills to be coated with the same facility as large.

*It speedily saves its own cost.*

Price 3/6 each.

TOOGOOD'S  
GRADATED MEASURES.

TOOGOOD'S  
BOXWOOD-TOP CORK BOTTLES

TOOGOOD'S  
MEXICAN SQUARES.

TOOGOOD'S  
CORISOLVENT BOTTLE.

TOOGOOD'S  
POISON BOTTLES.

AUSTRALIAN AGENCY AND SAMPLE ROOM:

Telegraphic Address: "TOOGOOD LONDON."

MR. J. JOSEPH, 250 Pitt Street, Sydney.

Telephone No. 3834.

Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.

# “Attractive, Effective AND Profitable Advertisement.”

With all Orders for **£1. 2s. 6d.** net we shall present a **LARGE SHOW CONE**, 18 inches high, made in “TERRA COTA.” This is a very attractive window ornament, and quite novel, the Model representing one of our No. 161 Cones with the lid off, and the Cone showing a splendid white in striking contrast to the red foot.

All our Cones are guaranteed Pure Menthol, and our Prices are the **LOWEST** in the market, if **SIZE** of Cone is taken into consideration. Our Boxes are all branded, and buyers may have their own names on for quantities of five gross free of charge; the Boxes do not then bear **OUR BRAND**.



No. 202.



Nos. 88 & 162.



Nos. 203, 205, 206.

Nos. 161, 162, 163, 201, 202, 203.  
IN BOX  
LIKE  
THIS.



No. 200.

Importers, Exporters, and the Home Trade, please keep this page for reference.



Nos. 89, 90, and 92.



No. 201 and 201B.

No.	Description	Per dozen	Size
88.	Hard Wood Boxes, Pedestal Shape	2/6	1/
89.	Nickel Screw Capped Bottles	4/6	1/
90.	"	3/8	9d.
92.	"	2/6	6d.
161.	Boxwood Boxes, Acorn Shape	4/2	1/
162.	" Pedestal, Screw Lids	3/11	1/
163.	Vegetable Ivory, Acorn Shape	5/0	1/
200.	Boxwood Boxes, Pedestal	3/0	6d.
201.	" Barrel, Screw Lids	3/11	1/
201B.	" " " Extra Large Cone	5/10	1/
202.	" " Bullet	3/11	1/
203.	" " Cone	3/11	1/
204.	Vegetable Ivory, Castle Shape	5/10	1/
205.	Boxwood Boxes, Cone Shape, each in box	3/3	6d.
206.	" " as No. 203, Large Size	4/8	1/
207.	" " Draughtsman Shape	4/11	1/

A Sample Box containing one each of above, 8/; by post 9/.

No.	Description	Per dozen	Size
207B.	Boxwood Box, Draughtsman Small	2/9	1/
	Size	6/6	1/
208.	Vegetable Ivory	4/6	1/
209.	Nickel Plated Pencil, with Menthol at end	5/4	1/
210.	Boxwood Boxes, Acorns, Nickel Plated Caps	5/10	1/
211.	Vegetable Ivory Boxes	5/4	1/
212.	Boxwood Boxes, Bullet Shape, reversible end	4/8	1/
213.	Menthol Charms for Watch Chains, &c.	2/9	6d.
214.	Glass Show Bottle, with Cone on Stopper	5/10	1/
214G.	Glass Show Bottle, Giant Size	6/	1/6
216.	Boxwood Boxes, Beer Bottle Shape, Large Cone	5/10	1/
217.	Glass Show Bottle, as No. 214	3/3	6d.
	(The best and largest 6d. Cone made.)		
218.	Menthol a Court Plaster in Nickel Cases	5/10	1/

In ordering through Merchants and the Wholesale Trade, from whom our preparations may be had at above prices, please state distinctly

5 per cent. Discount for Cash with Order.

“ACME BRAND” AND HOCKIN’S.

Special Quotations for Large Quantities.

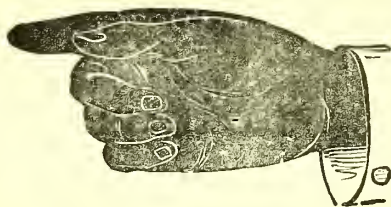
MANUFACTURED BY

## HOCKIN, WILSON & Co.

38 DUKE STREET, MANCHESTER SQUARE, LONDON, W.



# "KILL TWO BIRDS WITH ONE STONE"



"By **A1 BRAND MENTHOLS** with printed directions on, and in addition have an Advertisement of a Spécialité of your own along the back of the boxes, such as 'Smith's Tonic for Strengthening the Nerves, 1s. 6d. per bottle,' &c. By this means every Menthol Cone you sell helps to create a sale for your own preparation. If you wrap a handbill round a bottle, when the bottle is used the bill is thrown away and the advertisement lost; but the printing on the Menthol boxes being permanent, every time a person uses the cone he is bound to see any advertisement appearing on the box thus making this one of the most lasting and efficient means of advertising to be found anywhere. The only chance for a chemist nowadays is in selling his own specialities, therefore do not lose such an opportunity as this of advertising them."

## BUYERS OF AS SMALL A QUANTITY AS ONE GROSS

Can have their name and address, &c., printed on the back of the boxes *free of charge*, thus bringing this offer within the reach of most Chemists, a gross of cones being no ill stock at any time.

### SPECIAL PRICES TO LARGE BUYERS. QUOTATIONS SOLICITED.

**A JIMMY CONE**, measuring 9 inches high, made of highly polished boxwood, with directions printed on clearly, is given to purchasers of £1 worth; or two if an order for 30/ is placed.

No.	Description.	Price per doz.
1	6d. G <sup>s</sup> Bottles with Metal Screw Cap	3 3
1b	6d. B <sup>s</sup> Ditto Ditto Ditto	3 4
2	6d. W <sup>o</sup> Wood, lid serving as holder	3 0
2b	6d. D <sup>p</sup> , Barrel Shape	3 3
3	9d. G <sup>s</sup> Bottles, with Metal Screw Cap	5 0
4	1s. D <sup>o</sup> Do. Do. (Menthol on Wood Mint)	6 0
5	1s. D <sup>o</sup> Do. Do. (Bullet Cone wrapped in foil)	6 0
6	9d. B <sup>o</sup> Wood, Pedestal Shape	5 0
7	9d. B <sup>o</sup> Do. Barrel Shape	6 0
8	9d. B <sup>o</sup> Do. Acorn Shape	6 0
9	9d. B <sup>o</sup> Do. Skittle Shape	6 0
9A	1s. B <sup>o</sup> Do. Do.	7 6
9c	1/6 B <sup>o</sup> Do. Do.	9 6
9s	6d. B <sup>o</sup> good value, Do.	4 0

(A very cheap line.)



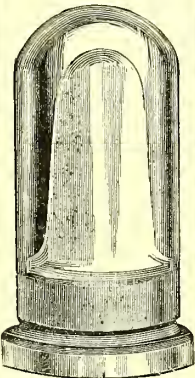
Nos. 17L-1s.

No.	Description.	Price per doz.
13A	1s. Vegetable Ivory, 12 in a box, Acorn Shape	5 9
14	1s. Pyramid Shape, each in a box	6 6
14A	1s. Ditto 12 in a box	6 3
14L	1s. or 1/6 Ditto extra-sized Cone, 12 in a box	7 6
15	6d. Cardboard Case, 12 in a box	3 0
17L	1s. Draughtsman Shape, Boxwood only, extra large	6 6
17	1s. Ditto Ebony only	6 3
17s	6d. Ditto Boxwood	4 0
18	1s. Combination Pincushion and Menthol	7 0
19	6d. Boxwood, Egg Shape, on elegant Card	3 0
20	1s. Smelling Bottle Menthol	7 6
21	1s. Menthol on Boxwood stopper, covered with glass shade, very attractive, each in a box	6 6
21A	1s. Ditto Ditto 12 in a box	6 3
23	6d. Ditto Ditto each in a box	4 0
23A	6d. Ditto Ditto 12 in a box	3 6
24	6d. Boxwood, Bottle Shape, very attractive	3 6



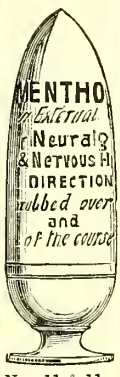
Nos. 8s, 6d. or 9d. No. 24.-6d.

Buyers can have View of their premises put on with equal ease if photograph is sent. Sample of Printed Cones sent with pleasure to intending large purchasers, showing various styles of Printing.



Nos. 21 and 21A.-1s. Nos. 23 and 23A.-6d.

ORDER DISTINCTLY AS SHIRLEY'S A1 BRAND. Of all WHOLESALE HOUSES and MERCHANTS, or DIRECT from the MANUFACTURER.



Nos. 11 & 11A. 6d.



Nos. 14, 14A, and 14L.

THE CHEAPEST IN THE LONG RUN, so if you want MENTHOL CONES ORDER SHIRLEY'S A1 BRAND.

SOLE MANUFACTURER—

ARTHUR W. SHIRLEY, (LATE J. G. Shirley), 30 Paternoster Square, London, E. C.

# WARRICK BROTHERS, LONDON.

Warrick Frères, Grasse & Paris. Also New York, 84 Church St.  
Have obtained the

Highest Awards at the Adelaide Exhibition

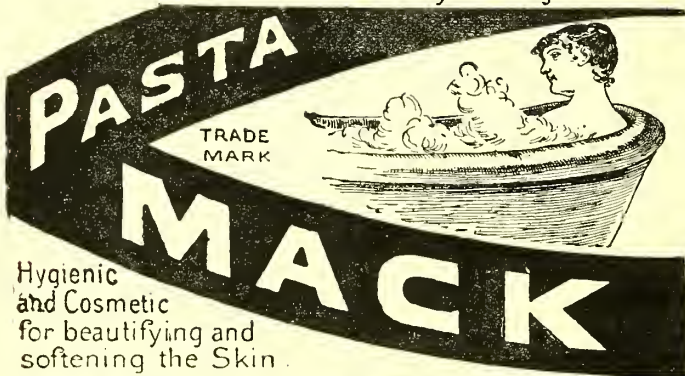
For

## Raw Materials for Perfumery

And for High-class Medicated Confectionery.

A lovely Bath and Toilet Water will be obtained by using

This entirely new and excellent bath-giving preparation SOFTENS THE WATER gives it a most delicious odour, and



Hygienic and Cosmetic for beautifying and softening the Skin.

BEAUTIFIES THE COMPLEXION

in a most extraordinary way

Should be in every Bathroom and bedroom.

To be had of all respectable Chemists and Perfumers throughout the world.

SOLE MANUFACTURER AND INVENTOR

H. MACK, ULM a/D.

FREE SAMPLES

Given Away with every Trial Jar.

### MEUPHROSINE.

The Only Absolutely Safe and Certain Cure in all cases of

**SLEEPLESSNESS**  
Caused by Nervousness, Overwork, &c.  
Guaranteed to contain no Opium, Chloral, Morphine, Bromide, or Alcohol.  
Does not affect the Heart's action nor disturb the Brain.  
Price per Bottle, 2s. 9d.; post free, 3s.  
Of all Chemists and of the Proprietors and Manufacturers,  
**S. RATTI & CO.,**  
8 Jeffrey's Square, St. Mary Axe, London, E.C

This Unique Preparation has the extraordinary property of keeping the

### HAIR IN CURL.

Now used by Ladies in all parts of the World.

Needs but an introduction to command a ready and constant sale.

**FRIZZETTA**  
(REGISTERED.)  
Foreign and Colonial should write for Terms.  
**F. W. BATES, CHEMIST,**  
BROOKS'S BAR, MANCHESTER.  
Telegraphic Address—"FRIZZETTA MANCHESTER."

### CLEOPATRA,

A HYGIENIC HAIR OIL.

Retail Price, 2/- per Bottle.

### EAU LODOIS,

THE ONLY TRUE HAIR PROMOTER. PERFECTLY HARMLESS.

As recommended by the Medical Profession, and testified to by numerous Genuine Testimonials

For Trade Terms apply to

THE FRENCH HYGIENIC SOCIETY,  
58 CONDUIT STREET, LONDON, W.



### IMPERIAL HAIR EYE.

(REGISTERED.)

ONE LIQUID. — Harmless, Perfect, Permanent and free from Smell. Clear, and without Sediment

Guaranteed to contain no lead, or any other noxious ingredients.

BLACK, BROWN, LIGHT BROWN, OR GOLDEN.

TRADE PRICE LIST:—

No 1.	1s. Od.	size	.. ..	7s. Od.	per doz.
No. 2.	2s. 6d.	"	.. ..	17s. 6d.	"
No. 3.	3s. 6d.	"	.. ..	24s. 6d.	"
No. 4.	5s. Od.	"	.. ..	35s. Od.	"
No. 5.	10s. 6d.	"	.. ..	78s. 6d.	"

J. BRODIE, 41 Museum Street, LONDON, W.C.

OSCAR SUTTON & CO.,



PRESTON, LANCASHIRE.

REGISTERED

TRADE MARK.

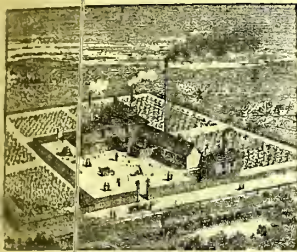
O.S. TOOTH BLOCK, "The Best and Safest Dentifrice."

OBSERVE OUR NAME AND TRADE MARK ON ALL THAT ARE GENUINE.

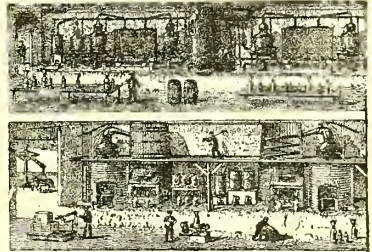
Oscar Sutton & Co

We have arranged with a first-class Die-sinker to supply us with a large quantity of name-plates, at a uniform charge of seven shillings each, irrespective of the number of letters required. You can now have your Name, Business, and Address, stamped on each Block, at no extra charge beyond the cost of name-plate, seven shillings, as above. Orders received through any of the leading Wholesale Houses, Orders direct to us must in all cases be accompanied by a remittance. One customer, residing in a town of less than 10,000 inhabitants, has just been supplied with the eighth gross, specially stamped.

O.S. Tooth Block, in Patent Metallic Box, retail 1/- each, 7/- per dozen.



PEPPERMINT, LAVENDER, & CAMOMILE OILS.



All those who have to buy and use the above Oils ought to take every care to get the same from the Growers and Distillers direct, guaranteed pure, as these Oils are very often adulterated to a great extent. We advise, for this reason, buyers to ask for Jenson's Brand, as their Oils are all grown in the district of Mitcham, and they are Guaranteed Pure.

JOHN AKSON & CO., 17 Philpot Lane, London, E.C.; & Mitcham Steam Distilleries.



FABRIQUE

DE

MATIÈRES PREMIÈRES DE PARFUMERIE.

PARUMERIES DE SEILLANS

(VAR, FRANCE).

lower grades. Perfumed Oils. Flower Extracts.

Essential Oils. Distilled Waters, &c., &c

OF A WHOLESALE DRUGGISTS, OR WHOLESALE ONLY OF

C. TRATT, Dunster House, Mincing Lane, London.

SHIPKOFF & CO.

OTTO OF ROSE

MANUFACTURERS & MERCHANTS,

KIZANLIK, BULGARIA.

IRGN OTTO ONLY DEALT IN.

REPRESENTED IN ENGLAND BY

O. P. BAKER, 19 Ivy Lane, Newgate St., London, E.C.

GREENSILL'S

THE

ORIGINAL

When

ordering

from

MONA

AND ONLY

GENUINE.

Wholesale Houses

please specify

"GREENSILL'S."

BOUQUET

SOLE MANUFACTURERS--

T. S. GREENSILL & SON

LOCH PARADE,

DOUGLAS, ISLE OF MAN.

See INDEX TO ADVERTISEMENTS, pp. 17-19.

**W. H. B. REFINED } BEESWAX.  
W. H. B. WHITE }**

Bernard Dyer, B.Sc. (Lond.), F.C.S., F.I.C., Analytical and Consulting Chemist. LABORATORY, 17 Great Tower Street, London, E.C., Nov. 25, 1886. I have analysed a cake of Wax stamped W.H.B. sent to me by a London House on behalf of Messrs. W. H. Bowdlear & Co., of Boston, Mass., U.S.A. It consists of pure bleached beeswax unminged with paraffine, fat, or other of the various materials with which beeswax, and especially white wax, is commonly adulterated. Bernard Dyer, B.Sc., F.C.S., F.I.C., Member of the Society of Public Analysts.

Our goods may be obtained in single case lots of any of the leading Wholesale Druggists in the Northern and Midland Counties, and of LOTHOUSE & SALTERS, Hull; COLTHURST & HARDING, Bristol; GOODALL, BACKHOUSE & CO., Leeds; GLASGOW APOTHECARIES COMPANY, Glasgow.

We will deliver our Goods in 5-cwt. lots ex quay, in any City which is the Terminus of a Steamship Line throughout the Kingdom.

CABLE ADDRESS—"BOWDLEAR BOSTON."

**W. H. BOWDLEAR & CO.,**  
147 Pearl Street, BOSTON, MASS., U.S.A.

**PURE SPIRITS OF WINE.**

60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/ per Gall. Discount for Cash with order

Further allowance for quantity. STEAM SHIPS ONLY.

**GEORGE PHILLIPS & CO.,**  
ST. ANDREW'S DISTILLERY, CLERKENWELL RD.  
LONDON, E.C.

**BURROUGHS'S**  
Spiritus Rectificatus, P.B.

**SPIRITS OF WINE**  
5 gall. 56 o.p. at 19/1 Cash.  
The BEST English Grade Spirit.  
Free from Fœtal Oil.  
Chemically Pure.  
Special Qualities for Quinine.

**ORANGE WINE,**  
MEDICINAL SHERRY.  
AT LOWEST PRICES.

**JAMES BURROUGHS,**  
LONDON.

**GOVERNMENT DISINFECTANT**

CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 1lb & 1/2 Packages

CARBOLIC POWDER (PINK) in TINS 6d & 1/6

CARBOLIC FLUID in 6d 1/6 & 1/6 STOPPED BOTTLES

CARBOLIC SOAP NO 1 & NO 2

CARBOLIC & GLYCERINE SOAP

**THE GOVERNMENT SANITARY CO.,** LONDON E.

FREE FROM POISON AGREEABLE IN SMELL. TO BE HAD WHOLESALE FROM ALL DRUGGISTS

Established 1843.

**THOMPSON & CAPPER,** Established 43.  
**WHOLESALE & EXPORT HOMŒOPATHIC CHEMISTS,**  
55 BOLD STREET, LIVERPOOL,  
And (late HENRY TURNER & CO.)  
51 PICCADILLY, MANCHESTER.  
ILLUSTRATED PRICE LIST ON APPLICATION.

**THOMPSON & CAPPER'S DENTIFRICE WATER.**  
Sells well everywhere, its beneficent qualities being attested to by physicians in all parts of the world. (See Testimonials.)  
In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

Wholesale Agents for the Dominion of Canada:—EVANS, SONS & MASON, Limited, MONTREAL.

**YOUNG & POSTANS. BISMUTH, PEPSINE & STEEL**

GRAN. EFFER. BISMUTH, AND PEPSINE	GRAN. EFFER. IRON AND BISMUTH
GRAN. EFFER. BISMUTH, PEPSINE AND STRYCHNINE	GRAN. EFFER. IRON, QUININE AND STRYCHNINE
GRAN. EFFER. BISMUTH, PEPSINE AND QUININE	GRAN. EFFER. IRON AND ARSENIC
GRAN. EFFER. BISMUTH, IRON AND QUININE	GRAN. EFFER. IRON AND PEPSINE
GRAN. EFFER. BISMUTH CITRATE	GRAN. EFFER. IRON AND QUININE
GRAN. EFFER. BISMUTH, IRON AND STRYCHNINE	GRAN. EFFER. IRON, QUININE AND PEPSINE

Now prepared only by **CURTIS & COMPANY,** 48 Baker Street, Portman Square, LONDON.

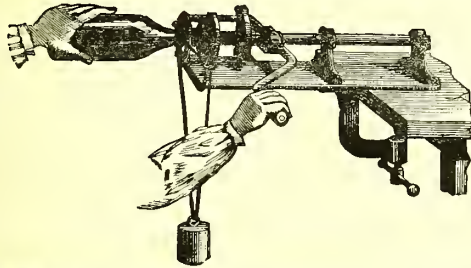
**G. YOGT, WHOLESALE & EXPORT DRUGGIST,**  
12 LAURENCE POUNTNEY LANE, CANNON STREET, E.C.

Finest French and English Drawn Essential Oils.—Insect Powder, guaranteed from closed flowers (Nine Prize Medals).—Fruit Essences.—Ethers.—Rose, Orange, and Elder Flower Waters.—Triple Extraits and Pomades.—Gums of all kinds.—Hypophosphites—and all other Chemicals.

DETAILED PRICE LISTS ON APPLICATION.

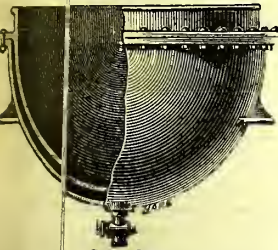
# NEW CAPSULING MACHINE

The only Machine which leaves no crease or leak on the Capsule.

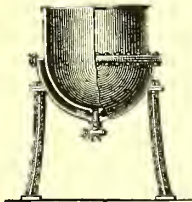


Can be fixed to any Counter. A single pull of the lever is sufficient to fix the Capsule.

Patentee—C. MELIN, 37 Crutched Friars, LONDON, E.O.



Steam Pan.

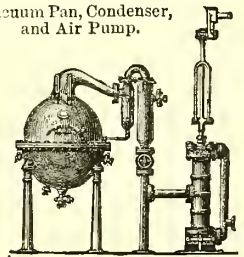


Steam Pan.



Tilting Pan.

Vacuum Pan, Condenser, and Air Pump.



Crushing and Grinding Machinery.  
Boiling and Evaporating Machinery.  
Paint and White Lead Machinery.  
Food Preserving Machinery.  
Fruit Preserving Machinery.

**BRINJES & GOODWIN,**  
FIELDGATE ST., LONDON, E  
ESTABLISHED 1829.

# CARTER'S DISINTEGRATORS

Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.

## NEARLY 1,100 IN USE

IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable. Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

Samples of ANY Material will be Ground free of charge.

J. HARRISON CARTER, 82 MARK LANE, LONDON; and PARIS.

Telegraphic Address—Milling London.

# CHEMISTS' MACHINERY.

- PILL MASS KNEADING MACHINES.
- PILL MAKING MACHINES.
- PELLET PRESSES.
- DRUG GRINDING MACHINES.
- SIFTING MACHINES.

FULL PARTICULARS OF ABOVE ON APPLICATION TO

**WERNER & PFLEIDERER,** 88 Upper Ground St., LONDON, S.E.

# HORN & SON

AUTHORISED AGENTS FOR PROCURING  
**PATENTS AND TRADE MARKS,**  
SOMERSET CHAMBERS, 151 STRAND, LONDON  
(NEXT TO SOMERSET HOUSE).  
*Guide to New Patent Law and Registration gratis.*

*M*ESSRS. HORN & SON supply, on appli-  
cation, full particulars of the **NEW**  
**MERCHANDISE MARKS ACT**, and the  
Cases recently decided. Labels revised to meet  
the New Law.

## "LA BRILLANTINE"

**METALLIC POWDER (REGISTERED)**  
Is the best, cheapest, and most effective Powder for cleaning and polishing Metals  
and Glass (specially Brass). It is used by the **LIFE, HORSE, and DRAGON**  
**GUARDS, the FIRE BRIGADES, &c., &c.** Sold in 6d. and 1s. Boxes.  
**Proprietors: J. F. BAUMGARTNER & CO.,**  
22 Newman Street, Oxford Street, LONDON. W.

## TERROLINE.

*Best and Cheapest.* **PETROLEUM JELLY.**  
Has but one equal from which it is difficult to distinguish, viz., "Vaseline."  
Guaranteed to be a natural product refined, not chemically, but mechanically. In  
7, 14, 28, and 56 lb. tins. Tins charged, and allowed, 3d. per 7 lbs.  
Price—Yellow 6d. lb., 5s. cart.; White 1s. lb. Free on rails or for enclosure. For  
COMPARISON, a 7 lb. tin per parcels post 4s.  
**SAUNDERS BROTHERS, Chemists,**  
6 ROCHESTER SQUARE, CAMDEN ROAD, N.W.  
N.B.—When ordering Indirectly, please note that ALL our tins are embossed  
"SAUNDERS."

## ORANGE WINE

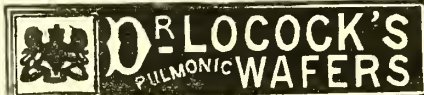
(VIN. AURANT., P.B.)  
Specially brewed for Quinine Wine, does not deposit. Is well adapted for Export,  
as it will keep good in any climate. In casks, 13, 27, 56, 112, 140 gallons; small  
casks 3s. 9d. per gall., carriage allowed. In wine bottles (not less than 3 doz.), at  
9s. per doz., including bottles. Cases extra and returnable.  
*Sample six stamps. Special quotations to large buyers.*  
**GEO. DURRANT & CO., Hertford.**

On Receipt of a Post Card we shall be pleased  
to forward to any address, FREE OF CHARGE AND CARRIAGE PAID,  
a Trial Sample of

*Exp. Cui Chouce Lig. (DeVry)*

FLETCHER, FLETCHER & STEVENSON,  
North London Chemical Works, Holloway, London, N.

The most Agreeable and Rapid Remedy for Asthma, Consumption,  
Coughs, Colds, Bronchitis, Throat Affections, Shortness of Breath, and  
all Disorders of the Chest is

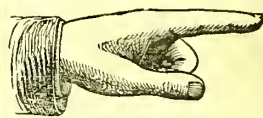


Prepared only by DA SILVA & CO., 26 Bride Lane, Fleet Street, LONDON.  
Sold by all Druggists at 1/1 $\frac{1}{2}$ , 2/9, 4/6, and 1/ per box.

## KERNICK'S LIME JUICE CORDIAL

(SWEET OR DRY),  
FRUIT SYRUPS, ETC.  
LIST FREE.

**KERNICK & SON, CARDIFF.**



## ARMBRICHT'S COCA WINE

AGENTS APPOINTED.  
**2 DUKE ST., GROSVENOR SQUARE**

## HONEY-DROP—FOR THE SKIN

Retail—6d., 10d., 1/6, and 3/4  
This splendid preparation, which is selling immensely, can be had  
wholesale from  
**W. EDWARDS & SON, LONDON; EVANS, GADSDEN & CO., EXETER**  
Sole Proprietor and Manufacturer  
**GEORGE STOCKER, CHEMIST, EXETER**

## PURE CRUSHED LISEED

Contains all the Oil. The finest purifiable.  
Prepared from specially selected seeds.  
Sold in 1 cwt. bags, 17s. per cwt., bags free; or in 2 and 56 lb. parcels,  
18s. per cwt.; also in 1/2 and 1 lb. tins and paraffin packets.  
**IDRIS & CO.**  
MANUFACTURING CHEMISTS AND MINERAL WATER MAKERS,  
ASCHAM STREET, LONDON, W.

## PETROLEUM JELLY

EQUAL TO AND CHEAPER THAN VALINE.  
**SANITARY FLUID AND SHEEP DIPS**  
THE CHEAPEST AND BEST DISINFECTANT.  
GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.  
*Samples and Prices on application.*  
**GRINDLEY & CO., POPLAR, LONDON, E.**

## ANALYTICAL AND CONSULTING CHEMIST. GEO. LOGAN RAIT, F.R.S., & CO.

Laboratory—31 MOORGATE ST., LONDON, E.C.  
Assistance given to Manufacturers and others requiring Chemical  
knowledge.  
Fifty per cent. discount allowed to the Trade.

## HOOPING COUGH! HOOPING COUGH!! HOOPING COUGH!!!

Positively and quickly cured by the New Discovery,  
**KEMP'S WHOOP-LINE**  
(TRADE MARK.)  
Is a certain cure in all cases of Hooping Cough, Branching  
affections of the Chest and Lungs. Price 1/1 $\frac{1}{2}$  and 2/6  
Prepared only by  
**W. H. KEMP, 220 Holloway Road, LONDON, N.**  
Wholesale Agents:—  
Messrs. BURGOYNE, BURDIGES & Co., 15 Coleman Street, London, E.C.

## RUBBER TYPE

On Metal body, perfectly accurate, for instant  
STAMP for Special Labels, &c., saving expense  
for Specimens and Price List to the  
**E. M. RICHFORD, Dept. 44 Snow Hill, London**  
Manufacturer of Rubber Stamps, Presses, the  
"Effective" Self-Inking Pads, &c., and Stationery  
Chemists in all parts of the world can add largely to their  
Goods. Liberal terms.

## TYPKE & KIN

22 Laurence Pountney Lane, E.C.  
Manufactories—MITCHEM & RAINING  
Pure Acids—Valerianic Acid and all Valerianates.  
Sulphuret, Antim. Crocus Lump, and Powder. Es  
Pineapple. Potassium Cyanide. Nitrate of Amm  
granulated. Potass. Sulphid. Iron Perchloride, s  
Hypophosphites of Lime, Manganese, Soda, P

**PRECIPITATED CHALK, WHITEST AND PUREST.**  
**ALSO** CHEAPEST SELLERS IN THE MARKET.  
**MECHANICALS, DRUGS AND OILS.**  
 APPLY TO  
**LEVERMORE & CO.,**  
 LIME STREET LONDON, E.C.

WRITE FOR PRICE LIST OF  
**PATENT GLASS. EARTHENWARE.**  
 (Deep Ribs and Stout.) (Improved Pattern.)  
**FUNNELS** GOOD QUALITY LOW IN PRICE.  
 SUITABLE FOR ALL TRADES.  
 SPECIAL TERMS TO WHOLESALE BUYERS  
**AYRTON & SAUNDERS, LIVERPOOL.**

**S. SAINSBURY'S**  
 A Highly-perfumed Scent,  
 prepared from the finest  
**ENGLISH LAVENDER,**  
 without any foreign whatever.  
**176 & 177 STRAND, LONDON.**  
*Wholesale and Shipping terms on application.*

**ESCHMANN BROS. & WALSH, LONDON,**  
 INVENTORS AND MANUFACTURERS OF THE  
**SOFT SILK FLEXIBLE CATHETER,**  
**WITH WOVEN EYES.**  
*To be had of all Surgical Instrument Makers & Wholesale Houses.*

TO LET.

**BOTTLE & PARCEL WAX**  
 AND  
**DIRECTION TAG MANUFACTURERS.**  
 SAMPLES AND PRICES ON APPLICATION.  
**FISHER, CLARK & CO., Boston, Lincolnshire.**

# PINE'S DEVONSHIRE OILS

**PRICE**  
 1 dozen **13/6** Per doz. net in  
 3 " **12/6** Wine Bottles.  
 6 " **11/6** CARRIAGE PAID.  
 12 " **10/6** Single Sample  
 Bottle, 1/9.

**FOR HORSES, COWS, SHEEP, AND LAMBS.**  
 THESE CATTLE OILS are prepared from the Original and Valuable Recipe of WILLIAM YOUATT PINE, and are unsurpassed, their great sale being a sufficient guarantee of their EXCELLENCE.

PREPARED AND SOLD WHOLESALE BY  
**WALTER GREGORY, 31 Fore Street, WELLINGTON, SOMERSET.**

Now ready, price 2s. 6d.  
 AN EPITOME OF  
**THE LAW AND PRACTICE**  
 CONNECTED WITH  
**PATENTS FOR INVENTIONS.**  
 With a Print of the Patents Acts of 1883, 1885, and 1886, and Rules and a Summary of the Patent Laws of Foreign Countries and British Colonies  
 By JAMES JOHNSON, Barrister-at-Law, and J. HENRY JOHNSON, Assoc. In C.E., Solicitor and Patent Agent, Authors of "The Patentee's Manual."  
 London: LONGMANS, GREEN & CO., Paternoster Row.

**LOISETTE'S** System of Memory Training  
 is the ONLY one by which the Natural Memory can be so much improved that the System, as a Device, will be no more needed.  
**MARK TWAIN** (Mr. S. L. Clemens) says of Professor Loissette: "He showed me how to LIGHT UP the dark cellar of my Memory." Languages learned rapidly. Prospectus (containing opinions of pupils who have PASSED EXAMINATIONS and of members of the Medical, Scholastic, Clerical, Military, and other professions)  
 post free from Professor LOISETTE, 37, New Oxford-st., London.

**SILVER MEDAL I.H.E. 1884.**

**CHLORIDE OF LIME!**  
 IN AIRTIGHT WATERPROOF & ODOURLESS PACKAGES  
 INVENTORS AND MANUFACTURERS **NATIONAL CHEMICAL CO., LONDON**  
 THE N. C. Cos. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN ALWAYS BE RELIED UPON TO GIVE SATISFACTION.  
 KEPT IN STOCK BY ALL WHOLESALE DRUGGISTS & C.  
 SEE THEIR PRICE LISTS.

**Beware of other so-called airtight packages.**

**BOORD & SON,**  
**RECTIFYING DISTILLERS & WINE MERCHANTS,**  
 ALLHALLOWS LANE  
 and  
 BARTHOLOMEW CLOSE, } **LONDON, E.C.,**  
 OFFER LOWEST QUOTATIONS, ON APPLICATION, FOR  
**FINEST RECTIFIED SPIRITS OF WINE**  
 Methylated Spirit and Finish; **Finest Orange Wine, Sherries,**  
 and **Malagas for Medicated Wines.**

THE ONLY PERFECT ENEMA OBTAINABLE

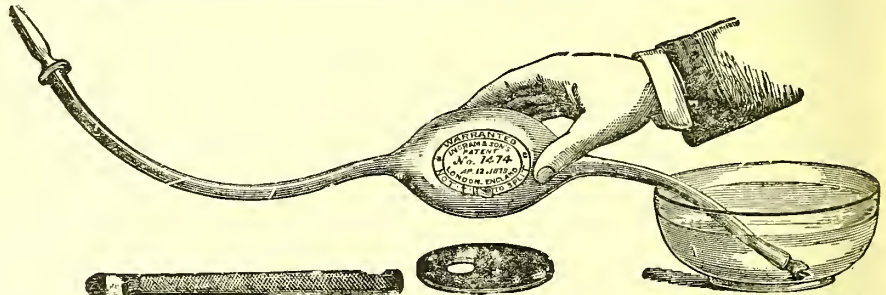
# INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

CAUTION.—The only Enema made without Ribs.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.



WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA over all others has given rise to various imitations, and it has become imperative that the Patentees should, in order to prevent deception, explain the process of manufacture of their enema and the mode of manufacture thereof, as they have undeniable proof that inferior enemas are positively being sold as their PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a new patent process, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its strength and durability, and, at the same time, dispenses with all seams, which, as is well known, are weak points in an enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a perfect enema without seams, thus overcoming the great fault to be found in all other enemas, viz.: splitting and leaking, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with improved valves, which prevent the admission of air with the fluid and can at any time be repaired, if necessary.

**CAUTION.**—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of sheet India Rubber, which are cemented together and shaped in a mould, thus producing ribs on the surface, and enemas so manufactured are always liable to split and leak at the seams, and thus to become quite useless.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from all imitations by its entire freedom from ribs of any description on its surface, and by having an improved metal pin valve at the suction end A; and it is acknowledged to be the only perfect enema obtainable.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Dispensaries, the three following qualities:—

- No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.
- No. 1b. Unpolished, in Red, Green, Blue, Black, or White.
- No. 2. Unpolished, in Drab only.

Favourably noticed in "British Medical Journal," December 13, 1879; in the "Lancet," January 3, 1880, and in "British Medical Journal," September 30, 1882.





# TRUSSES



MANUFACTURED SPECIALLY FOR

## EVANS, SONS & CO.

EVANS, LECHER & WEBB,  
LONDON.

LIVERPOOL.

EVANS, SONS & MASON, LTD.  
Montreal and Toronto,  
CANADA.

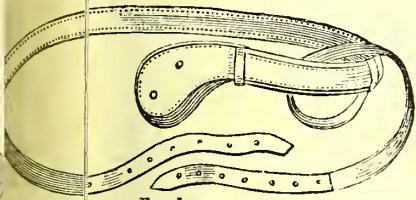


FIG. 1.

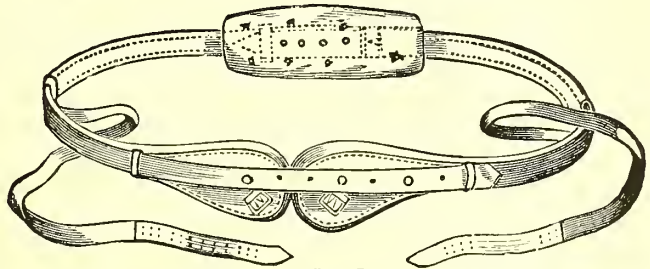


FIG. 3.

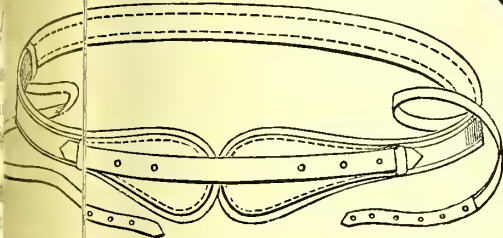


FIG. 2.

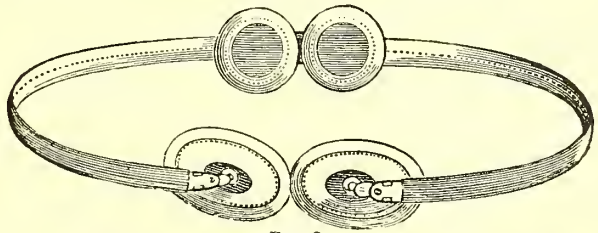


FIG. 8.

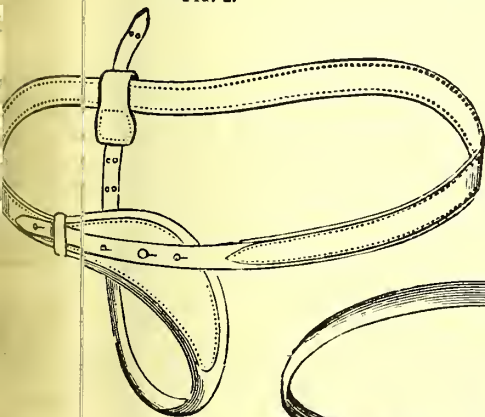


FIG. 9.

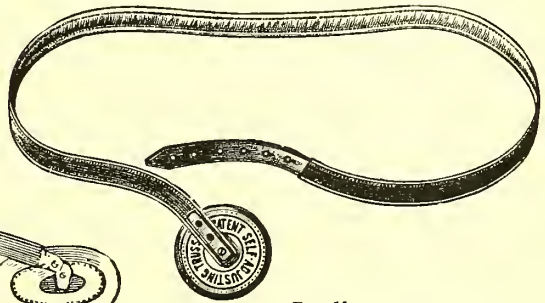


FIG. 11.

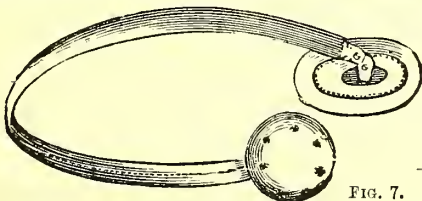


FIG. 7.

TRUSS WITH CIRCULAR SPRINGS, covered with basil leather and moleskin	20/	...	32/	PER DOZ.
Ditto, ditto, bevelled, and covered with calf and coloured leather, SAVARS Superior,	24/	...	40/	„
Fig. 1 and 2 ... ..	...	...	...	...
CIRCULAR, basil and moleskin, with sliding back, Fig. 3	...	—	63/	„
ALMON & ODY'S Expired Patent, Fig. 7 and 8	...	36/	72/	„
or SCOTAL HERNIA, Fig. 9	...	4/	7/	each
PATENT SELF-ADJUSTING, Fig. 11	...	44/	60/	doz.

# MAY, ROBERTS & CO

**SPECIAL AGENTS FOR**

TO REGULATE THE FLOW OF MILK OR FOOD.

CAN BE REGULATED IN THE DARK WITHOUT TESTING.

TO PREVENT THE INFANT SUCKING THE WIND.

WARRANTED NOT TO CUT OR INJURE THE PIPE.



**DIRECTIONS FOR USE**

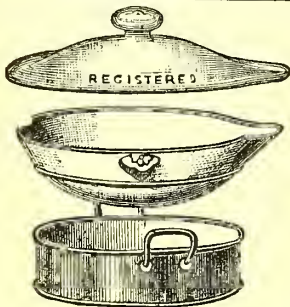
The projecting portion of blade is pressed by the thumb with a sliding an a slight downward motion to the teeth of the Rack (indicated by a small depression in the top of the Regulator), which holds the blade securely in the desired position. This Regulator can be used in the dark without testing as it gives a distinct tick when the blade passes over each of the teeth in the rack.

TO RETAIL AT 1d PER GROSS, 7s.

**PATENT MEDICINES** (PART II. PRICE LIST, 1888), NOW READY.

POST FREE ON APPLICATION TO

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON E.C.



## “MAY-ROBERTS” WATER BATH REGISTERED.

This Water Bath will supply a long-felt want amongst Chemists and Perfumers, where all quantities of materials have to be dealt with.

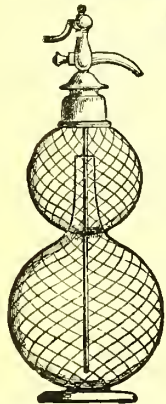
The old form of Water Bath necessitates the use of a second vessel for pouring the Cream, or other substance into the bottles or jars in which they are sold. In the “MAY-ROBERTS” Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars directly from the bowl. The Bath is also supplied with an earthenware cover.

1 PINT.	5 PINT.	10 PINT.
Each 3/0 .. ..	5/8 .. ..	9/6 .. ..

MAY, ROBERTS & CO., 9 Clerkenwell Rd., London, E.C.  
Telegraphic Address—“FEEDING BOTTLES LONDON.”

**DOWN AGAIN !!!**

## FEVRE'S SELTZOGENE



Caned, each ... ..	2 PINT. 7/	3 PINT. 8/	5 PINT. 12/5
Wired, each ... ..	2 PINT. 6/6	3 PINT. 7/9	5 PINT. 11/9

£2 worth or more, 5 per cent. discount.

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.  
Telegraphic Address—“FEEDING BOTTLES LONDON.”



# LYNCH'S IMPROVED

PRIZE MEDAL,

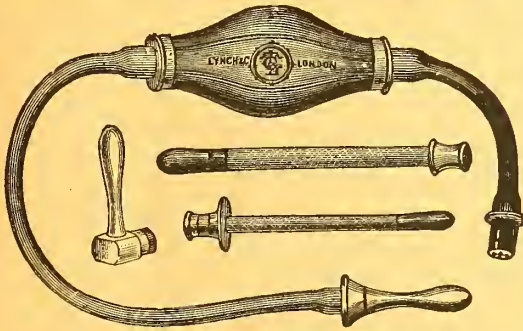


SYDNEY, 1879.

# FAMILY ENEMA

(Patent 13,816, dated 12th October, 1887).

In  
Mahogany Box  
lined  
with Velvet,  
per dozen,  
**49/-**



In  
Slide Cedar Box,  
per dozen,  
**43/-**

Less usual Discount.

LYNCH & CO. have long recognised the imperfect nature of the Valves hitherto employed in the construction of Enemas, and their liability to destruction from contact with the great matter, from clogging, and even in some cases actually rusting in the alvular chamber.

In the employment of Glass they have secured a material not only free from the foregoing defects, but combining all the essentials of incorrodibility, cleanliness, and perfect continuous action.

The valves are so situated, being placed at the extremity of both inlet and delivery tubes, as to admit of their ready removal and replacement, if desirable; and being when the Indiarubber are perfectly protected from any possibility of breakage.

The simplicity of the Apparatus, the entire absence of complication, and the extremely moderate price warrant the Inventors in hoping for its universal adoption.

MAY BE HAD WHOLESALE OF THE PATENTEES—

## LYNCH & CO., 192 ALDERSGATE STREET, LONDON, E.C.

AUSTRALIAN BRANCH—15 Vaughan's Chambers, 48 Queen Street, MELBOURNE.

## SHOWROOM.

We have now completed the restoration of our premises, and shall be pleased to see of our country friends visiting London. Our Showroom contains samples of all the best goods and the most recent novelties, and we are fain to hope will prove of interest to intending purchasers.

### LYNCH & CO.

26th November, 1887.

# "THE BEST NATURAL APERIENT"

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Waters marks, names, and designations very similar to those which are used by the

## APOLLINARIS COMPANY, LIMITED

FOR THE

## NATURAL MINERAL APERIENT WATER

IMPORTED BY THEM.

Under these circumstances the APOLLINARIS COMPANY, LIMITED, feel compelled to call the public that the HUNGARIAN BITTER WATER sold by the COMPANY always bears the name of the APOLLINARIS COMPANY, LIMITED, on the Label.

### CADBURYS COCOA ESSENCE

The medical profession has declared Cadbury's Cocoa Essence in the most wholesome and palatable form.

you get it when asked for, as imitations are often pushed for the sake of extra profit.

"We have carefully examined the samples brought under our notice, and find that they are genuine, and that the Essence of Cocoa is just what is required for medicinal purposes."—*Lancet*.

"Cocoa treated thus will, we expect, prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal*.

**GUARANTEED PURE AND SOLUBLE.**

# SOLE IMPORTERS

OF

## APOLLINARIS WATER,

## FRIEDRICHSHALL WATER,

## HUNYADI JÁNOS WATER

# THE APOLLINARIS CO., LIMITED

19 REGENT STREET, LONDON, S.W.

SPECIAL PRICES ON APPLICATION

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

# THE CHEMIST & DRUGGIST SUPPLEMENT.

Business Wanted.  
Business for Disposal.  
Premises Let.  
Auction Sales.

SATURDAY, MARCH 24, 1888.

Partnerships.  
Situations Vacant.  
Situations Wanted.  
Miscellaneous.

**THE EASTER HOLIDAYS—IMPORTANT NOTICE.**  
Advertisements to appear in the next issue of this Supplement must reach our Office not later than the first post, Thursday Morning, March 29. The Offices of "The Chemist and Druggist" will be closed after Thursday, March 29 until Tuesday, April 3.  
42 Cannon Street, E.C., March 24, 1888.

## CHEMISTS' TRANSFERS. MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C. CHEMISTS' TRANSFER AGENTS.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.  
Conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid difficulty of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars where most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

- 1.—LONDON, N.W.—Good business locality; first-class Dispensing, with good prices; situate in a prominent and convenient premises and house; about £1,150 offered.
- 2.—LONDON SUBURB, N.W.—Good business Retail and Prescribing Business; returns average profit largely increased; large, handsome shop and good garden; about £350 will be accepted.
- 3.—LONDON, EAST.—Good ready-money business, highly profitable; returns over £650 yearly, with nearly £300 net low rental; garden and greenhouse attached; price for offer.
- 4.—LONDON, W.C.—First-class business; returns over £1,000 yearly; fine and well-known concern; large and convenient premises; about £1,100 required.
- 5.—LONDON, SOUTH.—Good-class Retail and Dispensing Business; established many years; returns under management yearly, can be much increased by a principal; good house and garden; price £700.
- 6.—LONDON.—Main road; good business locality; returns about £630 yearly; well-fitted shop, and good stock; house; about £550 required.
- 7.—SUSSEX.—Small Wholesale; returns £1,400 yearly, several good Proprietaries included; warehouse only, no qualification necessary; any reasonable terms will be accepted.
- 8.—£1,900.—SOUTH OF ENGLAND.—Good market town; very old established business; returns at present nearly £1,900; will bear the strictest investigation; about £1,450 required; good introduction given.
- 9.—£600.—WEST OF ENGLAND.—Good-class Retail and Dispensing Business, with a good appointment attached; returns about £600 yearly, increasing; profits good; large house, low rental; price £525.
- 10.—£4,000.—KENT.—Good town; Wholesale and Retail; returns over £4,000; capable of great increase; premises large and convenient; small premium and valuation only; particulars in confidence; references required.
- 11.—£1,350.—HOME COUNTY.—Fashionable town; first-class business for immediate disposal; returns from profitable trade about £1,350; large, handsome, double-fronted shop and good stock; about £1,100 required, or valuation terms can be arranged.
- 12.—£500.—DURHAM COUNTY.—Large and flourishing town; an old-established business; present returns £500 yearly from Retail and Dispensing; capital opening for Mixed Trade; value of stock and fixtures only required.
- 13.—£2,000.—MIDLANDS.—Large town; good old-established business; Retail and Dispensing, with small Surgeons' Wholesale attached; returns over £2,000, with good profits; price £1,600; part can be paid by instalments if wished.
- 14.—£600.—NORTH OF ENGLAND.—In a good manufacturing town; present returns about £300; can easily be doubled; capital premises and good-sized house; any reasonable offer will be accepted.

**N.B.—NO CHARGE TO PURCHASERS.**

Other Business, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, free.  
TERMS OF VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.  
Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the special attention of an agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

## SPECIAL NOTICE.

Re Mr. W. H. BROMLEY, LINCOLN (late TOMLINSON & HAYWARD).  
Tenders for this Business will be opened on the 23rd instant. Messrs. ORRIDGE & Co. can therefore RECEIVE TENDERS up to Tuesday, the 27th instant.

ORRIDGE & CO., 32 Ludgate Hill, London, E.C.

# PARSON C. BAKER,

## TRANSFER AGENT,

8 Stockbridge Terrace, S.W.  
(CLOSE TO VICTORIA STATION),

Has inquiries for genuine businesses from £500 to £1,000.

**F**OR Disposal.—In the county of ESSEX, a genuine old-established mixed country business; no heavy trade; doing an annually increasing return, with good profits; good house, garden, stable, &c.; rent £22; returns £630; price £400. In a large and populous town, an old-established business, now doing £400, but may be much extended; low rent; price, valuation of stock and fixtures only, about £200. In LONDON, W.—Opened only nine months, a newly-fitted and stocked pharmacy; will make a paying branch; price £180. In a large town, DURHAM, an excellent retail, with good proprietaries, returning £1,000; valuation of stock and fixtures, or half-share with sole management for £300.

### SALE BY AUCTION.

Tuesday next.—Pentonville Road.—Stock-in-Trade of a Medical and General Shopfitter and Furniture.—By order of the Administratrix of the late Mr. W. J. Le Maitre.

**M**ESSRS. NEWBON & HARDING, having disposed of the Lease, will SELL by AUCTION, on the Premises, 66 Pentonville Road (near the Angel), on TUESDAY, March 27, at One precisely, a quantity of CHEMISTS and other SHOP-FITTINGS, the remaining furniture and miscellaneous effects.—On view the day preceding and morning of sale. Catalogues had at the Auctioneers' Offices, 275 Upper Street, N.

### TENDERS.

**B**Y TENDER, perfectly-fitted Shop.—Treble's first-class fittings in excellent condition, and Maw's shop bottles and jars; mahogany drawers, counter, and cases; globes and specie jars; also trade utensils; may be viewed in position at 134 The Parade, Leamington Spa; must be disposed of by March 31. Apply on premises. Vendor retiring.

### TO LET.

*3s. 6d. for fifty words; 6d. for every 10 words beyond.*

**W**OODHALL SPA, Lincolnshire.—To Let, at rents from £20 and upwards, the only Chemist's Shop in the New Mall. Apply, Mr. R. A. Came, 27 Mecklenburgh Square, London, W.C.

### PARTNERSHIP.

**A**N unusual opportunity occurs for a gentleman who can command from £400 to £500 to join the advertiser in an undertaking (connected with the profession) which cannot fail to produce immediate, large, and increasing returns; preference given to one who would not object to travel in the United Kingdom, or who has a knowledge of office work. Address, with full particulars, C. C., 28 Benyon Road, Southgate Road, London, N.

### BUSINESSES WANTED.

*3s. 6d. for fifty words; 6d. for every 10 words beyond.*

**G**OOD Retail and Dispensing Business in the South of England required; returns about £1,000; must bear investigation. Address, with full particulars, to Mr. W. L. Williams, Solicitor, Wakefield.

**A**LIGHT Retail and Dispensing Business, making a net profit of £300 to £500; London suburbs or country preferred; no agents. Full particulars to "Cash," care of Messrs. Maw, Son & Thompson, 11 Aldersgate Street, E.C.

**W**ANTED, a thoroughly reliable go Retail and Dispensing Business; a market town with some Agricultural connection would be desirable; must bear thorough investigation; references given; a partnership in good concern would be entertained with confidence, to C. E. W., Ashton Lea, Aylestone Hill, Hereford.

### BUSINESSES FOR DISPOSAL.

*3s. 6d. for fifty words; 6d. for every 10 words beyond.*

**O**PENING for a Chemist, one of the best in England by a gentleman has offered to advance money in the same way if preferred. Apply for full particulars, E. W. Robinson, 207 Goswell Road, London.

**S**COTLAND.—Good Retail and Dispensing Business; turnover £500 to £600; valuation of established business £1,000; address, "Scotland," Evans, Sons & Co., Liverpool.

**A** GOOD General and Agricultural Business in a Midland town, returning £1,600 a year; valuation about £800; goodwill £150. Apply to "Cash," THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**H**YDE.—Mixed Drug Business for disposal; good position and low rental, in large and populous neighbourhood; satisfactory reasons given for selling; particulars on application. Walker, Medical Hall, Hyde.

**S**OUTH STAFFORDSHIRE.—For disposal, a Light Retail, Dispensing, and Prescribing Business established over 50 years; old age cause of sale; good profits; shop well fitted; price £250, or by valuation. Apply to J. Timley, Chemist, West Bromwich.

**A**S a going Concern.—To be disposed of some corner Chemist's shop, in a growing neighbourhood of N.E.; fittings, glass cases, and bottles new; a good opening for a Surgeon or Dispensary; price £120, cheap reasons for leaving. Apply, 2 Marsh Lane, Bootle.

**S**MALL Drug Business (Branch), in Birmingham; open part time under premises; rent low; house let off, could be made up; income £130; open more than twelve months; paying well; wants personal attention. "Radix," 30 Heath Street, Winson Green, Birmingham.

**A**N old-established, highly lucrative Retail, Dispensing, and Prescribing Business; in a good position; hands twenty years; returns over £700 a year; price £600; a thorough investigation will be made by all purchasers. Apply, "Fides," Messrs. Barr Giltspur Street, London, E.C.

**S**OUTH COAST.—A genuine Business, recently established; fixtures new, by Howlett; stock selected; demands of neighbourhood; returns under management annually, may be doubled at once by a new principal; price £375, including lease of house. S., c. Harvey, London.

**£1,000** returns; good mixed Business, recently established; Prescribing and Dispensing; profit £350; good shop and house; small premises; price £750. Also Branch returning about £100; part can remain. F. J. Breit, 60 St. Nicholas, Leicester.

**B**IRMINGHAM District.—For immediate transfer of an old-established and bona-fide Retail and Dispensing Business; situated in the best position in a populous town; shop well arranged and conveniently fitted; modious warehouse; excellent storeroom and laboratory, with good house, excellent house, coachhouse and stable; yard; returns (profitable) £12 to £15 per week; lease granted; price for cash £450, or by valuation, vendor having other engagements. Apply to "Tempus," care of Wyleys & Co., Wharfedale, Coventry.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**F**OR disposal, a Business in Cheshire; last year's return over £580, booking to good families about £150 (included in the £580); rent £30; incoming about £300. Address, "Veritas," care of Mr. J. M. Richards, 46 Holborn Viaduct, London.

**L**ONDON, W.—Nice-class Dispensing and Prescribing Business in good neighbourhood; very little opposition; great scope for increase; capital residence; proprietor retiring; price £170. "Rhei," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**B**RANFORD.—Grand corner position, East End; under new management; returns last year nearly £8 weekly; principal could largely increase it; excellent stock and good fittings; established 40 years; every inspection and information; offers invited. "Fides," Heaton, Squire & Francis, 10, Coleman Street, E.C.

**£330**—For immediate disposal, Dispensing and Mixed Retail Business in Cheshire; returns (under management) £700 per annum; might be largely increased; an excellent opening for an energetic young man. Apply, Johnson, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**F**OR sale, an old-established (1810) Retail and Dispensing Business, in the Midlands; returns secure, one year will more than cover purchase; corner position, principal street in town, and two good windows; good opportunity for a young man; price £450; good fixtures, nearly new. Apply to Messrs. Wyley & Co., Coventry.

**C**ORNWALL.—Delightfully situated Light Retail, Dispensing, and Prescribing Business; nothing heavy; same hands; 30 years; 10-roomed house and garden; long lease; returns £700; net profit £300; late proprietor did £1,000, and will do same again in competent hands; price £500. "Mor," care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**C**HESHIRE.—A genuine Light Retail Drug Business; near Frodsham; good profits; now under management; could be doubled by principal; increasing neighbourhood and healthy situation; making great improvements in house; rent £25; price £200; strict investigation and inspection invited. Apply, Geo. Marshall, Chemist and Dentist, Ramcorn.

**£25**—For Goodwill and introduction into good connection, with assistance in refitting up shop building, in healthy country town; returns averaged about £20 per annum, very profitable; for above amount, immediate cash; thoroughly genuine; rent very low; dwelling house and good shop. Address, Steane, 79 Roxburgh Street, Walton, Liverpool.

**S**OUTH INVESTMENT.—To be disposed of, in large country town (20 miles from Shrewsbury), old-established Chemist's Business; no stores or cutting; double-fronted shop; good house; rent £35; beautiful healthy town; one only; value of stock and fixtures; immediate possession; exceptional value; should be seen. "Proprietor," 42 Castle Street, Shrewsbury.

**A** WELL-KNOWN and successful Proprietary Business in London for disposal; proprietor retiring; by most chemists in the British Isles, Australia, New Zealand, &c.; the business can be easily managed, and with energy could be indefinitely extended; very suitable for young men; £4,000 at least required. Apply to THE CHEMIST AND DRUGGIST Office, 42 Cannon Street, London, E.C.

**C**HEMISTS and Ironmonger's.—An exceptional opportunity for two young men as partners; an old-established and thoroughly genuine combined Business, in a thriving town in Midland counties, situated in an agricultural and mining district, and Branch within easy distance with good residence; returns, including both places, £3,300 per annum, one-third in drugs, &c.; profits about 25 per cent. on gross returns; rent £60, and £45 for branch; price £3,000, and fixtures at valuation, and £500 for good-will and valuable proprietaries; vendor retiring. Apply, "Carbon," Wyley & Co., Wholesale Druggists, Coventry.

**W**ANTED, an Assistant (outdoors) who understands the Oil and Paint trade. Apply, with full particulars, and state when disengaged, to Blunt's Drug Stores, Northampton.

**W**ANTED, Agents in England, America, and the Colonies by a Dalmatian firm exporting Insect Powder. Please apply to B. P., care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**G.** J. L. RUSSELL, Pharmaceutical Chemist, Windsor, has a vacancy for an indoor Junior or Improver of good education; gentlemanly address and steady habits; applicants not answered in 3 days declined.

**W**ANTED, a young qualified Assistant for country trade; one with a knowledge of Grocery preferred; indoor; no Sunday duties; comfortable home, easy hours; photo, references, and say if abstainer. Bond, Somerton, Somerset.

**W**HOLESALE Drug Trade.—Required, a Traveller for the North of England; liberal salary to a first-class man, with good connection among surgeons, institutions, &c. Full particulars to "Traveller," care of Messrs. Adams Bros., 56 Moor Lane, Barbican, E.C.

**W**ANTED, Junior Assistant or Improver; must be accustomed to a mixed country business; easy hours (indoors); state full particulars, references, salary, age, height, &c., with photo, to be returned. Apply, by letter, to T. Judson & Son, 18 Market Place, Ripon, Yorks.

**W**ANTED, Qualified Assistant, with knowledge of French and acquainted with manufacture of Aerated Waters, for a vacancy to be filled immediately in China; first-class references indispensable; aged 25 to 30. Address, Q. D., 194, Messrs. Deacon, Leadenhall Street.

**W**ANTED, an Assistant, about 21 years of age, accustomed to good-class Retail and Dispensing; outdoors; short hours. Apply, with full particulars, enclosing photo, to W. H. Stanway, Chemist and Dentist, Kington, Herefordshire.

**J**UNIOR Assistant or Improver, about 20 years of age, for Mixed country trade, in small market town; no Sunday duty; must be steady, energetic, and obliging. Send age, photo, height, and references, to H. Payne, Chemist and Stationer, Market Rasen.

**W**HOLESALE Drug Trade.—A provincial house, of good standing, want a thoroughly competent Representative; only men of experience need apply, giving fullest particulars; salary not so much an object as efficient services. "Viator," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**W**ANTED, by Chemist and Dentist, a Junior indoor Assistant who can do Mechanical Dentistry, or one wishful to acquire a practical knowledge of Dentistry would be treated with; references and good address indispensable; short hours; state salary. "Harrogate," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**W**ILLIAM HESELTINE & SON, Wilson Street, Finsbury, E.C., are open to engage a first-class man to introduce and appoint Chemists as Agents for their Teas; liberal terms to one having necessary qualifications (see full page advertisement appearing in this issue). Apply by letter, as above, in first instance.

**C**OUNTY Lunatic Asylum, Cane Hill, Purley, Surrey.—Dispenser wanted; single; must be duly qualified by the Pharmaceutical Society, and have a practical knowledge of photography; preference given to one able to assist in the various indoor and outdoor amusements of the patients; salary £65, rising £5 per annum to £80. Applications, enclosing photograph and copies of testimonials, to be addressed to the Medical Superintendent.

**MANAGER**; qualified; experienced in Prescribing; married, or able to arrange for domestic life; best references only. W., 185 Shirland Road, W.

### SITUATIONS WANTED.

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

**IMPROVER**; 2 years' experience; 18. F. Timberlake, North Road, Brentford.

**TEMPORARY** or otherwise; outdoors; varied experience; 27. T. M. P., 9 Newington Causeway, S.E.

**IMPROVER**; aged 17; 15 months' experience; salary no object. "Chemist," 23 Broadgate, Coventry.

**BRANCH Manager** or Assistant; in or outdoors. M., Preston-on-Wye, Hereford.

**JUNIOR** or Improver; aged 18; well recommended. A. M., Trafalgar Villa, Stratton, Cirencester.

**ASSISTANT** (29), active; unqualified; disengaged; good references. "Beta," 74 King Street, Woolwich.

**AS TEMPORARY**, for one month; good experience. Glover, 6 St. Julian's Road, Kilburn, N.W.

**ASSISTANT**, with view to succession, or temporary. R. J. Marshallsay, Wareham, Dorset.

**AS Junior**, with time for study; aged 18; 4 years' experience; accurate dispenser. S. Ward, 2 Clive St., Hereford.

**ASSISTANT** or Branch Manager; aged 30; excellent references; disengaged. J. G. S., 451 S. Port Road, Manchester.

**ASSISTANT**; Minor qualification; town and country experience; would prefer with view to purchase. "Chemicus," 15 Park Road, Southampton.

**JUNIOR**; 8 years' varied experience; aged 23; satisfactory references. A. G., Bidboro', Tunbridge Wells.

**MANAGER** or Dispenser, Chemist or Surgeon; temporary or permanent. Dunkerly, M.P.S., 88 Morton Road, Essex Road, Islington, N.

**QUALIFIED** Manager, married, desires permanent engagement. Terms to "Fides," Southernhay Pharmacy, Exeter.

**F.G.S.** Inventor, Author, formerly Examiner's Assistant; Analyst or Teacher; state salary. 11 Esk Terrace, Whitby.

**WHOLESALE**; Office or Warehouse; aged 18; 3 years' Retail. 13 Walkden Road, Walkden, Manchester.

**JUNIOR** or Improver; time for study; aged 18; height 5 ft. 9½ in.; 4 years' experience. H. B., 14 St. Gothard Road, West Norwood, S.E.

**APPRENTICE** (free middle of May) wishes a part-time situation as Junior in London, preferably near Bloomsbury Square; aged 20; height 5 ft. 5½ in.; state terms. Care of Chas. Midgley, St. Anne's Square, Manchester.

**WANTED**, a situation as Manager for a branch; most excellent references and testimonials; married; no family. Address, B., 6 Arthur Terrace, Woodbridge Road, Ipswich.

**MANAGER**; by an experienced qualified man, accustomed to town and country trade; aged 35; single; good dispenser and prescriber; suburbs or provinces preferred. "Minor," 29 Percy Street, Bedford Square, London, W.

**ANALYTICAL**.—Situation required a manufacturing laboratory; analytical department preferred. Major qualification, and in addition have had a special course in analytical work in the laboratories of the Pharmaceutical Society. Address, Reece, 30 Lorn Gardens, John's Wood, N.W.

### APPRENTICESHIPS.

**CHEMIST'S** Apprentice wanted, in one of the highest-class pharmacies in the West End; must be a gentlemanly youth and have passed the Preliminary equivalent examination; premium 150 guineas. Apply "Remo," care of Idris & Co, Kentish Town, London, N.W.

**AS** Apprentice, by a well-educated youth, in an established Retail and Dispensing business within easy reach of London; passed Cambridge local examination. Premium, &c., to A. C., 7 Marlborough Road, Gunnersbury, London, W.

### MISCELLANEOUS.

*Special charges are made for Advertisements under this heading which can be obtained on application.*

#### GLASGOW EXHIBITION, 1887.

**RETAIL** Chemist wishes to exhibit patented novelty; space required about one square foot or less. Anyone having such to spare in their exhibit, please communicate with "Fides," care of Evans, Sons & Co., Liverpool.

#### COD-LIVER OIL.

**A FEW** Barrels (25 gallons, tin lined) New Season's non-freezing Norwegian, at lowest price for finest obtainable. Sample on application to the Impiers, Alfred Holt & Co., African Chambers, 19 Old Hall Street, Liverpool, Drug, Chemical, Oil, and General Produce Merchants.

**TO INVENTORS**, &c.—An influential and old established house, having a valuable country stock-raising countries of the world, is open to advertise on an extensive scale any proprietary article likely to be in general demand among stock-raisers. Reliable and proved articles entertained. Full particulars to T. S., Messrs. Street & Co., 30 Cornhill, London, C.

#### MERCHANDISE MARKS ACT ASSOCIATION.

**THIS** Association has been formed, under the auspices of the London and County Chambers of Commerce, to promote the interests of Traders affected by the Merchandise Marks Act, 1887. Among its chief objects are the promotion of the general understanding of the Act, the defence of the interests of members by test cases or otherwise, and the furtherance of such amendments to the Act as may be found advisable. Prospectuses and all information to be obtained on application to the Secretary, Mr. K. B. Murray, Botolph House, Eastcheap, E.C.

#### PRELIMINARY AND MINOR

**ALL** Students who are preparing for the Preliminary and Minor Examinations should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings, established 1872. References to past and present Pupils of 32 Pupils passed the last Examinations.

#### STUDENTS' AIDS TO EXAMINATION.

**PRELIMINARY**.—Arithmetic and Metaphysics, 1s. How to Write an Essay, 3d. Caesar's Commentaries, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR. Simplified, 1s. Illegible Autographic Prescription on Dispensing, 1s. Prescriptions given at the "Chemist," care of Mr. J. Edwards, Wye, Kent.

**JUDD'S MEMORY. MINOR LITHOGRAPHIC. GALABLISTICS** in Pharmacy of 100 Pharmaceutical Formulæ, 1s. 7d.; "The (Radicals) Certificate," 9d.; "Prescription Reading," 2s. 3d.; "Minor and its Questions," 6d.; "Lessons in Chemical Equations," 1s. 7d.; "Fasciculus Prescriptionum," 9d.; "Arithmetical Minor Problems," 9d. Or the set of seven complete, post free, 5s. 1s.; published 10s. 6d. Mr. H. Judd, 30 Regent Square, London, W.C.