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Zinc oleate f 516; permanganate n 42

# LEATH & ROSS'S HOMEOPATHIC PHARMACIES.

9 VERE STREET.

And 5 ST. PAUL'S CHURCHYARD, E.C.,

LONDON.

Those desirous of

ESTABLISHED 1835. To apply at

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BECOMING AGENTS

are requested

Agents for L. & R.'s Medicines are now established in every town of any importance in England, some of the principal towns in Ireland and Scotland, several of the British Colonies, and India and America. wards of 1,800 persons have accepted the Agency, and many have found this branch a profitable auxiliary to their other business.



TRADE PRICE £4 4s. CONTENTS REALISE £7 1s. 6d.

Wholesale Department.

#### THE NEW FAMILY CHEST

Contains 28 Bottles of the most useful Homœopathic Medicines, a Guide, giving the treatment of all common complaints, the uses of the Medicines, proper doscs, &c. In the lid are the two cxternals most in use, viz., Arnica and Calendula. It can be fitted to hold either Pilules or Tinctures.

Price 25/; trade price, 16/8.

#### LEATH & ROSS'S WHOLE OF MEDICINES, ETC.,

READY

Sixpenny Tubes, 3/- per dozen. Ninepenny ,, 4/6

Shilling 6/-

TINCTURES—Any strength up to the 30th potency. Sixpenny Bottles, 3/- per dozen.

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GLOBULES-Medicated any strength up to the 30th potency. | PILULES-Medicated to any strength up to the 30th potency Sixpenny Bottles, 3/- per dozen.

Ninepenny " 4/6Shilling -6/-

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Sixpenny Bottles, 4/- per dozen. Ninepenny " 4/6 Shilling

#### EXPORT ORDERS ARE DESPATCHED WITH THE GREATEST PROMPTITUDE.

Special quotations for large quantities.

#### LEATH ROSS'S PROPRIETARY ARTICLES.

BERBERINE,  $1/1\frac{1}{2}$ , 2/9, 4/6 ... CHILBLAIN LINIMENT,  $1/1\frac{1}{2}$ , 2/9 ... NEURALINE, 1/11, 2/9, 4/6 ... 9/6, 22/, 36/. 9/6, 22/, 36/. 9/6, 22/, 36/. ... 9/6, 22/. GLYKALINE,  $1/1\frac{1}{2}$ , 2/9, 4/6 ... PHOSPHO-MUR. QUININE, or PICK-ME-UP 9/6, 22/, 36/. ODONTALGIC ESSENCE, 1/11, 2/9, 4/6 **TINCTURE, 1/1\frac{1}{2}, 2/9 ....** ... 9/6, 22/.

8/, 12/, 20/. AUROSINE, 1/, 1/6, 2/6 8/, 12/, 20/. 8/, 12/, 20/. OZONIZED OIL, 1/, 1/6, 2/6 ... ANTISEPTIC TOOTH TINCTURE, 1/, 1/6, 2/6 12/, 20/, 36/. HAIR RESTORER, 1/6, 2/6, 4/6

Agents' Counter Cases, £2|2|0, £3|3|0, £4|4|0, £6|6|0, and £10|10|0.

# LEATH & ROSS, LONDON.

### MEDALS AWARDED TO VASELINE.

BY AMERICAN INSTITUTE. Bronze Medal, 1874. Silver Medal, 1875. Medal of Superiority, 1877.

SILVER MEDAL, Exposition Universelle, Paris, 1878.

GRAND MEDAL AND DIPLOMA. Philadelphia, 1876.

#### CAUTION.

We must again caution the Trade against imitations of "Vaseline," made, apparently, by mixing Paraffin Oil with Paraffin Wax.

Every pharmacist knows that it is impossible to make a satisfactory homogeneous Ointment by mixing with a lard that is "grainy."

The paraffin imitations of Vaseline may be distinguished by their odour, taste, and by the grainy or crystalline structure which is very evident to the eye when compared with the jelly-like smoothness of true Vaseline.

To prevent adulteration, &c., we put it up, for the convenience of the Trade, in 11b. and 51b. Tins, with our name stamped thereon; and we beg that it may be ordered in our packages.

VASELINE is the only known substance which possesses ALL the following named qualities, viz.:-

After being liquefied, it regains all its primitive properties on cooling. It will not crystallise, oxidise, or become rancid, and is absolutely free from odour or taste. As an emollient it has no rival, as it is the only known substance which will not irritate the skin. Not being a DISTILLATE of Petroleum, it is perfectly harmless when introduced into the system.

VASELINE is in general use in the Hospitals of England, Europe, and America, and is endorsed by the entire Medical Press and Profession throughout the World as the best basis for ointments, and for use in Ocular Therapeutics, Surgery, Dressing of Wounds, and Obstetrics. In Eczema, Tetter and Ulcerated Surfaces, Rheumatic Swelling of the Joints, Chilblains, and numerous other troubles, it ranks among the most valuable of remedies.

As an emollient, VASELINE is superior to any other substance yet discovered. Its marvellous healing and restoring qualities excel everything else, and it is rapidly taking the place on the toilet table to the exclusion of the various complexion powders, pomades, cosmetics, and other compounds. It will keep the skin clearer, softer, and smoother than any cosmetic ever invented, and will preserve the youthful beauty and freshness of the healthy complexion.

The following articles are put up for Medicinal and Toilet purposes, and will be found superior to anything heretofore introduced:—

#### NET PRICE LIST.

# VASELINE (Pure) FOR MEDICINAL USE) Bottles, in fancy card cases, 3 sizes, 8s., 16s., and

33s. per dozen; in boxes (wood) of 1 dozen and of 1 dozen.

Vaseline with 3 per cent. Carbolic Acid. Bottles, in fancy card case, 16s. per dozen; in boxes (wood) of ½ dozen, 116 tins, 2s. 6d.

• In 1-lb. Tins, 2s. 6d.

Glass Pots, 2 sizes, 8s. and 16s. per dozen; in boxes of 1 dozen and of ½ dozen.

Fancy Paper Boxes, 8s. per dozen; in boxes of

(9s. per dozen Tablets, less 15 % discount; in boxes of 3 tablets.

1-lb. Tins, 24s. per dozen; in boxes of ½ dozen.

For the convenience of Chemists in dispensing, "Vaseline" and "Veterinary Vaseline" are put up in 5-lb. Tins.

The process by which Vaseline is made is protected by Letters Patent, and "Vaseline" is our registered Trade Mark. None genuine except in our Packages.

> MANUFACTURED BY ONLY THE

CHESEBROUGH MANUFACTURING CO. (New York),

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Troduced Charles and the control of the control of

The Best and Cheapest

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Superior Steam - Refined

# NORWEGIAN COD LIVER OIL.

MAWSON & SWAN, Importers, 11 & 15 Mosley St., NEWCASTLE-ON-TYNE.

NOTA BENE. - ABOVE-MENTIONED CORRECTED QUOTATIONS APPLY ONLY FOR ORDERS RECEIVED DURING PRESENT MONTH (DECEMBER).

# BURGESS, WILLOWS & FRANCIS,



WHOLESALE DRUGGISTS

Manufacturing Pharmaceutical Chemists, 101 HIGH HOLBORN, LONDON.

MOTICE.

# ALTERATION & EXTENSION OF PREMISES.

B. W. & F. beg to announce that they now occupy their New Warehouse and Laboratory, which are in complete working order. The Entrance to the Offices and Warehouse is in

WHITE HORSE YARD,

adjoining, and immediately in the rear of the former premises in Holborn.

Postal Address as before-

101 HIGH HOLBORN, LONDON, W.C.

Price Lists on application. Special Terms for Shippers' Indents and Large Buyers.

BY HER MAJESTY'S



ROYAL LETTERS PATENT

#### ENEMA. ARNOLD

NOTICE.—ARNOLD & SONS, at the suggestion of several leading members of the Profession, have introduced a cheap form of their Patent "Simplex" Enema, which will be found to supersede all other Enemas. It is acknowledged to be the most simple, durable, and effective instrument yet introduced.

Vide The Lancet, August 17, 1872; British Medical Journal, June 22, 1872; Medical Times and Gazette, June 22, 1872; Medical Press and Circular, June 26, 1872.

WHOLESALE PRICES-Patent Simplex Enema, No. 4 Quality, in Metal Case, complete, 3/6. Patent Simplex Uterine Douche, No. 4 Quality, in Metal Case, complete, 4/6. 3s. 6d.

THE VAPORIFER

5s. & 7s.6d.

ARNOLD & SONS' PATENT VAPORIFER BRONCHITIS KETTLE, INHALER, VAPOUR BATH COMBINED

As suggested by W. L. SHEPARD, M.R.C.S., etc. Vide The Lancet, Jan. 11, 1879; British Medical Journal, Feb. 8, 1879; Medical Times and Gazette, April 12, 1879

Extract of Letter received from J. F. FINCHETTE, Esq., Portland House, Brunswick Square, W., dated Feb. 18, 1879. "The 'Vaporifer,' all complete, came to hand safely on Saturday last, with thanks, and I consider it a marvel of cheapnes and utility, and wish Dr. Shepard, all success with his invention, which, I feel assured, only needs to be known to be appreciated. I have tried it for each of the purposes for which it is intended, and found it answer completely."

Trade Price, 42s. per doz. Retail Price, 5s. With Lamp, Saucepan, and Stand complete, 63s. per doz. Retail Price, 7s. 6d.

SOLE MANUFACTURERS ARNOLD & SONS, Instrument Makers, By Appointment to Her Majesty's Government, St. Bartholomew's Hospital, and the Principal Provincial and Colonial Hospitals, &c.

35 36 WEST SMITHFIELD, LONDON,

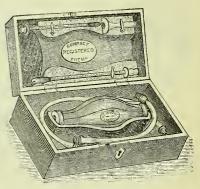
In Cedar Box with Sliding Lid.



Outside measurement 7by 41 by 25. FIG. 1.

The "Compact" Enema is so constructed that the India Rubber tubes disconnect from the centre, and are placed in the Case so that they cannot possibly become perished; and the pipes, which all fit one screw, viz., a highly finished bone rectum pipe, an elastic-gum rectum pipe with metal shield for children, and an elastic gum vagina pipe and leather shield, have each their separate location in the Case, where they are fastened by a brass thumb-piece. None but the very best Mineralised India Rubber is used in the manufacture of the "Compact" Enema, the enamel of which is warranted not to blister or peel off, or the centres to split; they cannot therefore be surpassed for exportation to hot climates.

In Polished Mahogany Box.



Outside measurement 71 by 41 by 25.

5 15

18

FIG. 2.

PRICES TO THE TRADE.

PER DOZ. In Cedar Box (Fig. 1) with Sliding Lid £2 In Mahogany Box (Fig. 2) to Fasten with Hooks and Eyes, the bottom of the Box only Velvet Lined In Mahogany Box (Fig. 2) to Fasten with Hooks and Eyes, Lined throughout with Velvet .... 2 2

In Superior Mahogany Box (Fig. 2) with Lock and Key, and Lined throughout with Superior Velvet

USUAL TERMS.

W. GIBSON CO., 82

Manufacturers of all kinds of Surgical India Rubber Goods, and Dealers in Surgical Instruments and Druggists' Sundries,

75 MORTIMER ROAD, KINGSLAND, LONDON, N.

# "GREASOTE SOAP,"

PRIZE MEDAL,

REGISTERED.



LONDON, 1869

# Messrs. LOW, SON & HAYDON

Claim for this Soap that, while it fulfils all the requirements of a good Toilet Soap, it has especial virtues in cases of cutaneous disease and as a preventative against contagion, so that where any risks are incurred (and none are entirely free from them) it becomes a most desirable Soap for the DAILY use of all. It is offered to the public with every confidence in its intrinsic merits, in the belief that it will be duly appreciated, and command an extensive sale. Attention is called to the following Extracts from the Medical Press—

From The Lancet, July 19, 1879.—"This Soap contains a large proportion of creasotc and other allied substances, and doubtless possesses considerable antiseptic properties; there is therefore a large field for its use."

From The Medical Times and Gazette, September 20, 1879.—"The Soap has a faint (and therefore not displeasing) odour of creasote, is well made, and ought, by virtue of the antiseptic properties of the creasote, to be useful and popular."

From The Sanitary Record, September 15, 1879.—"It is certainly an exceedingly elegant toilet preparation, delicately scented, and neatly got up. As it owes its disinfecting properties to one of the most reliable of known disinfectants, it cannot fail to make its way in public estimation."

EACH TABLET IS SEPARATELY WRAPPED. PRICE per dozen, 3/6, or per gross, 36/-.

### FAMILY BROWN WINDSOR SOAP,

At 60/- per cwt., Genuine, and sweetly perfumed.

This Soap is recommended to the Trade as the best value that can be obtained. Embossed Squares, 6 to lb., and in 14-lb. Boxes.

CASH DISCOUNT, 10 PER CENT.

# R. LOW, SON & HAYDON,

Perfumers, Toilet Soap Makers, and Brush Manufacturers,

330 STRAND (SOMERSET HOUSE), LONDON.

Shippers supplied.]

# CORBYN, STACEY

DISPENSERS WILL PLEASE NOTE THAT

# LIEBREICH'S SYRUP OF CHLORAL

Is prepared only by CORBYN, STACEY & COMPANY, under the direction and guarantee of Prof. OSCAR LIEBREICH, of Berlin.

PURE,

"Guaranteed by Liebreich as the purest form of the drug."—Medical Press and Circular.

"The flavour of the Chloral is so skilfully disguised, that little besides the sugar can be tasted. We think it is likely to become very popular." —Chemist and Druggist, August, 1877.

UNIFORM, AND

STRENGTH.—Ten grains of Chloral in each Fluid Drachm or Measured Teaspoonful.

"Pharmaceutically it is a type of what a syrup should be, and we have rarely seen so elegant a fluid; the taste is pleasantly, and almost perfectly, disguised."—Monthly Magazine of Chemistry and Pharmacy, October, 1877.

# AUTHORISED.

Bottles 3/6 and 2/- each; 28/- and 16/- per dozen. 1-lb. Bottles, for Dispensing, 3/4 each.

# PEPSIN-

"We have ascertained clinically that a teaspoonful of this very light and palatable preparation, taken, according to direction, after food, has a considerable power of aiding imperfect and diseased digestion."—British Medical Journal.

"Since the appearance of an article by Dr. Lieberglei, in the Practitioner, on the action of Pepsin, attention has again heen drawn to that preparation. All that can be said on the subject of the raview binds of Papsin in circul-

ESSENZ—corbyn, Stacey & Company.

All that can be said on the subject of the various kinds of Pepsin in circulation is what has been frequently repeated, namely, that in the beginning dry preparations act quite well, but that they do not keep for any length of time. The researches of Panum and Preyer have shown that of the various solutions the best is the Pepsin-Essenz of OSCAR LIEBREICH."—British Medical Journal, July 21, 1877.

# LIEBREICH.

"Dr. Liebreich's Pepsin-Essenz is agreeable to look at and pleasant to the taste, and in some cases in which we have employed it the result has been highly satisfactory. We think it well worthy the attention of the profession."—Medical Times and Gazette.

"It possesses to a considerable degree the power of coagulating milk, and it may therefore be advantageous in the dyspepsia of infants,"—Practitioner.

IN ORIGINAL BOTTLES AT 2s. 6d. EACH; 20s. PER DOZEN.

# CORBYN'S CALAMINA PREPARATA, No. 3.

A Natural Calamine, prepared from ore selected and imported by CORBYN & CO.

Of this Calamine Dr. Tilbury Fox says that "it is excellent in every respect."

5s. per Pound.

The Lancet says it is "an excellent preparation of Calamine, very fine in powder, soft and free from grit."

# CORBYN'S EXTRACT OF MALT.

RICE ONLEY, Esq., M.R.C.S., House Physician to the Radeliffe Infirmary, says: "We frequently employ your Extract of Malt in this Institution. Where Cod Liver Oil cannot be taken it acts as a very efficient substitute. It is besides so agreeable that I have never known a single patient object to take it. I consider it a most useful article, and have seen it do much good in many cases of debility and convalescence."

Dr. Wm. Roberts, at the Northwich Meeting of the British Medical Association, reported favourably on the activity of Corbyn & Co.'s Extract of Malt.

CORBYN & CO. prepare this Extract in VACUO, at a temperature so low that the full proportion of *Diastase* is retained and the characteristic flavour is nuimpaired. It is nourishing, and rich in both fat and flesh formers, and may be had associated with such remedies as Iron, Quinine, the Hypophosphites, Cod Liver Oil, &c. Bottles 2s. each.

Shippers supplied.

WHOLESALE AND EXPORT DRUGGIST

C., S. & Co.'s Prices Current for the Trade, and "Notes on Drug Sc,"

# COMPANY

Shippers supplied.

(REGISTERED.)

### LIQUOR DIALYSATUS.

PREPARED ONLY BY CORBYN & CO.

Liquor Opii Dialysatus is a preparation of Opium, obtained, as its name implies, by Dialysis. It is a pale liquid, with a slight taste, from which the disagreeable heavy characteristic odour of Opium is conspicuously absent. It contains all the crystalline active principles of Opium in the same relative proportions as the crude drug. It is quite free from extractive, resinous, waxy and caoutchouc substances, and retains only a minimum quantity of colouring matter. The proportion of morphia, and indeed of the opium alkaloids generally, is constant—that of the former being equal to four grains of Morphia Hydrochlorate in the fluid ounce. The dose is therefore the same as that of Tincture of Opium, Liquid Extract of Opium, &c. In continued use it has been found that this preparation does not produce constipation, headache, or stomach disturbance, and patients exhibit a tolerance not shown to any other preparation of Opium.

In Bottles-4 oz., 8 oz., and 16 oz.-at 8s. per lb.

B. Arcedeckne Duncan, Esq., M.D., M.R.C.P., Physician North-West London Hospital for Women and Children, Physician Hospital for Diseases of the Heart and Paralysis, &c., &c., writes:

"I have given your Liq. Opil Dialysatus an extended trial both in hospital and private practice, and have found it extremely uniform in its action, free from the severe nansea so common with most other preparations of the same drug, certain in its effects without producing the usual cerebral disturbance, headache, &c., &c. I am clearly of opinion that in all cases where preparations of Opium are admissible, it will be found of great value." February 14, 1879.

Testimonial from W. E. Battersby, M.B., M.R.C.S., &c., Surgeon Bengal Medical Service.

"Carra Lake, Killarney, December 11, 1879.

"I can fully endorse all you say in your advertisement in favour of your Liq. Opii Dialysatus. I regard it as a most invaluable preparation of Opium and far superior to the Tincture (B.P.), or Liq. Opii Sed, or Liq. Morphiæ Hydrochlor., for anyone who, like myself, needs continuous and large quantities. I may say though that I am able to sleep better and more refreshingly on it than with double the quantity of Liq. Morphiæ Mir., which I was taking prior to seeing your advertisement. It does not seem to produce any unpleasant after effects, such as headache, nausea, constipation or the like, while its freedom from any unpleasant taste would be a strong recommendation with some."

# LMOOGRA

(OLEUM GYNOCARDIÆ), expressed from the seeds of GYNOCARDIA ODORATA, R.Br.

This Oil is an official remedy in India for Leprosy, Scrofula, Skin Diseases, and Rheumatism—see Pharmacopæia of India, p. 26, where it is also stated that the oil procured from the bazaar is usually impure.

C., S. & Co. have completed arrangements for uninterrupted supplies of the Oil in a condition of absolute purity, and are now in a position to furnish it in Bottles, in Perles, as an Ointment, and incorporated in Soap. The dose of the Oil is from four to sixteen minims, or from one to four Perles.

For varied information, see a Pamphlet entitled "Papers on the Plant Gynocardia odorata, &c.," by R. C. Lepage, Esq., late of Calcutta, post free, One Shilling. On pp. 11 to 17 will be found particulars of remarkable cases of Leprosy, Scrofula, and Secondary Syphilis successfully treated by Dr. MOUAT.

C., S. & Co. hold numerous unsolicited testimonials as to the salutary influence exercised by Chaulmoogra preparations in the diseases mentioned.

The Pure Oil in 4 6 Bottles, 38/- per doz.; ½-lb. Bottle (10/6), 7/-; 1-lb. Bottle (20/-), 13/4 each. Perles, 2/6 Boxes, 20/- per doz.; 7/- Bottle of 100, 4/6; 32/- Bottle of 500, 21/-; 56/- Bottle of 1,000, 38/- each. Ointment, 2-oz. Pot (1/9), 14/-; 4-oz. Pot (3/-), 24/-; 1-lb. Pot (10/6), 78/- per doz.

Soap in Tablets (1/-), 8/- per doz.

Copy of Testimonial received from Jas. Startin, Esq., Surgeon to St. John's Hospital for Skin Diseases.

"17 Sackville Street, W., October 23, 1879.

"I have given your Chanlmoogra Oil Soap a good trial, and have much pleasure in informing you that it has a very good effect noon many skin eruptions, especially those of the scaly nature, and is invaluable in the treatment of Eczema and Psoriasis of the palms of the hands. I shall not fail to recommend it."

### HIGH HOLBORN, LONDON.

Shippers supplied.

ce.," will be forwarded on application accompanied by Business Card.

## ALLEN HANBURYS'

REECT

(Registered).



SILVER MEDAL, PARIS, 1878, for A. & H.s' COD LIVER OIL.





PHILADELPHIA, 1876, for A. & H.s' COD LIVER OIL.

The "Perfécted" Cod Liver Oil is prepared by an altogether new and special process. The following advantages are claimed for it—viz., that—It is free from nauseous taste and smell; it does not produce offensive eructations or sickness; it is consequently digested without inconvenience, and can be taken by many who cannot bear ordinary cod liver oil, even of the finest quality; it presents the medicinal and nutritive qualities of the remedy in their highest degree of excellence.

In order to appreciate these advantages, THE "PERFECTED" COD LIVER OIL must be taken.

#### THE BRITISH MEDICAL JOURNAL, Dec. 13th, 1879.

Messrs. ALLEN & HANBURYS have approached this subject from a side which will, we suspect, appeal very directly to the reason and sympathies of thoughtful prescribers. Instead of taking an ordinary Cod Liver Oil, and attempting to disguise its flavour by all sorts of devices and mixtures, they have studied anew the processes of manufacture of Cod Liver Oil, for which they have always had a great reputation; and, as a result of this study, they have produced a Cod Liver Oil which is so delicate in flavour as to be free from all the usual nauseous properties of fish oil, and has almost the delicacy of salad oil. Even for the various admixtures and emulsions, the use of such an oil as the basis will be a great advantage; and we congratulate Messrs. Allen & Hanburys on having realised a pharmaceutical progress on the best lines of advance.

#### THE LANCET, Oct. 18th, 1879.

Messrs. ALLEN & HANBURYS have as nearly as possible succeeded in depriving Cod Liver Oil of its nauseating smell and taste. They present in their "perfected" article the oil in a beautifully bright and but very little coloured state.

#### THE LONDON MEDICAL RECORD, Dec. 15th, 1879.

It is a pleasure to meet with so excellent a preparation as this "perfected" Cod Liver Oil. Limpid, delicate, free from disagreeable flavour, and admirably refined by a new and improved process, the "perfected" Cod Liver Oil of ALLEN & HAN-BURYS will henceforth take its place as a pharmaceutical product which is in its way unrivalled. This Cod Liver Oil is worth the attention of all who have occasion to use such material in their practice.

#### THE MEDICAL TIMES AND GAZETTE, Oct. 4th, 1879.

Messrs. ALLEN & HANBURYS have brought out an Oil almost perfectly free from the smell and flavour which, while characteristic of fish oils, prove so nauseous and offensive to some patients as to make perseverance with Cod Liver Oil as a medicine simply impossible. . . . . Unquestionably singularly free from taste and smell, and we do not hesitate to strongly recommend it to the notice of the profession.

See also the Medical Press and Circular, Dec. 15th, 1879; Practitioner, Jan., 1880.

Sold ONLY in Imperial Quarts -9/-. Per dozen, 80/-Each Bottle bears the Trade Mark Pints 4/9. 44/-(a Plough) and the 2/6. Half-pints - -23/-Signature of the Manufacturers. Quarter-pints - 1/4. 12/-

TO BE HAD OF ALL PATENT MEDICINE HOUSES, AND OF THE MAKERS.

N.B.—The ABOVE is an ENTIRELY NEW and DISTINCT ARTICLE.

ALLEN & HANBURYS' well known COD LIVER OIL supplied in bulk and otherwise as heretofore. NEW SHOW CARDS AND HANDBILLS.

# &Z HANBURYS'

FOR INFANTS INVALIDS.

(PATENTED.)

Sold only in Tins at 1s., 2s., 5s., and 10s. each. 9s. 6d., 19s., 46s., and 90s. per dozen. Trade Mark, a Malt Kiln with the word "Malted" on the roof.

TO BE HAD OF ALL PATENT MEDICINE HOUSES, AND OF THE MAKERS!

6d

SILVER MEDAL, PARIS, 1878.



ALLEN & HANBURYS'

TRADE



1/-

A.D. 1715.

1.1h

PREPARED BY PATENT PROCESS. 1 lb 1/-

Rd

		1.10.	1/-	ou.		1.10.	_ i	ou.
								size.
		Per doz.	Per doz.	Per doz.		Per doz.	Per doz.	Per doz.
BLACK CURRANT	)	r' 30/-	8/-	4/-	) (	32/-	8/6	4/4
GLYCERINE LICHEN	JULIURES	,,	,,	,,	PASTILLES	,,	"	"
	UUUUULU,	,,	"	,,,	I NOTILLEO,	"	> >	71
	9/	,,	,,	,,	9/9	>>	71	,,
MAGNUM BONUM	4/-	,,	,,		4/4	.,	,,	12
	PER LB.,	See Spe	cial Notic	re below.	PER LB.,	See Spec	ial Notice	below.
	on in tin	,,	,,	٠,	! 1!	,,	,,	,,
RASPBERRY	i or in tin	21	**	,,,	or in tin	,,,	12	"
ROSE	hoves	,,,	"	,	hove	,,	"	,,
	nove9	,,,	,,	,,	nove?	23	,,	,,
VOICE					}			,,
DELECTABLE EXTRACT OF MAIN	2/4	34/	8/6	4/4	2/4	34/	8/6	4/4
	7 - 7	. ,,	,,	"	7 - 1	>>	79	,,
VIOLET	PER LB.	,,,,	"	,,	PER LB.	,,	,,	,,,
		· All the	above tins				One Pound	Tins are
	LICHEN LIQUORICE MAGNUM BONUM PECTORALE PINE RASPBERRY ROSE TAMARIND VOICE	GLYCERINE LICHEN LIQUORICE MAGNUM BONUM PECTORALE PINE RASPBERRY ROSE TAMARIND VOICE DELECTABLE EXTRACT OF MALT JUJUBES, 2/- PER LB., Or in tin boxes.	BLACK CURRANT GLYCERINE LICHEN LIQUORICE MAGNUM BONUM PECTORALE PINE RASPBERRY ROSE TAMARIND VOICE DELECTABLE EXTRACT OF MALT VIOLET  BLACK CURRANT JUJUBES, 30/- " See Specare Tomana and the size. Per doz.  30/- " See Specare " See Specare " See Specare " " " 2/4 " " PER LE.  Per doz.  34/- " " " " 34/- " " " " " " " " " " " " " " " " " " "	Size   Per doz.   Pe	BLACK CURRANT GLYCERINE LICHEN LIQUORICE MAGNUM BONUM PECTORALE PINE RASPBERRY ROSE TAMARIND VOICE DELECTABLE EXTRACT OF MALT VIOLET  BLACK CURRANT Size. Size. Per doz. Per doz. Per doz. Per doz. Per doz. Per doz.  30/- 8/- 4/-  """ """ """ """ """ """ """ """ """	BLACK CURRANT GLYCERINE LICHEN LIQUORICE MAGNUM BONUM PECTORALE PINE RASPBERRY ROSE TAMARIND VOICE DELECTABLE EXTRACT OF MALT VIOLET  Size. Size. Per doz. P	Size.   Size.   Size.   Size.   Size.   Per doz.   Pe	Size   Size

GUIMAUVE, cut into Cubes, unless ordered in sheet GUIMAUVE PASTILLES GUIMAUVE SHEETS ANISEED LIQUORICE JUJUBES

2/6not 36/-8/supplied PER LB. 30/-

GUIMAUVE PASTILLES (Crystallized)......2/6 per lb. The two can be (Rose) ......2/6 per lb. had mixed. CRYSTALLIZED FRUIT PASTILLES ......2/- per lb. CRYSTALLIZED VOICE JUJUBES ...........2/- per lb.

PECTORAL

(Registered.)

efficacious bronchial and pulmonic Jujube of delicious flavour.

Sold only in round boxes, to retail at 1/-, 1/9, and 3/- each; 9/-, 16/-, and 27/- per doz.

A sample of any of the above Jujubes, &c., sent free by post if desired.

SUPERIOR UPRIGHT SHOW

CASES. Frames Fitted with Glass Shelves, Silvered-glass Backs, and Lettered in Gold; with three Glass Dishes to display three kinds of Jujubes or Pastilles. Price 42 each. Size, 21 in. high, 10 in. broad, and 8 in. deep SHOW CARDS AND HANDBILLS ON APPLICATION.

In addition to the highly nutritive properties of EXTRACT OF MALT, it promotes, when properly made, the solution and digestion of farinace us foods. This result depends on the activity of a peculiar substance called Diastase, the presence of which, uninjured, in this Extract is secured by a special process and evaporation in vacuo. Dose.—From a dessertspoonful to a tablespoonful in water, wine, or milk, with or immediately after meals. Dissolved in either of the above, EXTRACT OF MALT forms also an excellent vehicle for taking COD LIVER OIL.

Note.—This EXTRACT is entirely free from alcohol. Price in bulk......ls. 8d. per pound.

In 12-oz. Wide-mouth Bottles, to Retail at 2s. 0d. each ....... 18s. per dozen. In 24-oz. 3s, 6d.

# FRY'S

(PATENT)

Is a combination of ALLEN & HANBURYS' EXTRACT OF MALT with superior PASTE CHOCOLATE, affording a delicious beverage. The Extract may be most agreeably taken in this form.

Sold in Tins, to Retail at 1s. each ......9s. per dozen. Ditto ditto 

HANDBILLS AND APPLICATION. SAMPLES ON

#### ALLEN ANBURYS

Wholesale Druggists, Manufacturers of Pharmaceutical Preparations, &c.,

Plough Court, 37 Lombard Street, London, E.C. General List of Drugs, Chemicals, &c., posted free on application.

# COBDEN'S QUININE AND PHOSPHORUS PILLS.

THE NEW TONIC, 2/9 and 4/6.

PHOSPHORUS is the life-giving element in the hlood, and the thought-giving power of the brain. In conjunction with Quinine it is one of the most powerful curative agents known. All nervous diseases mean a want of Phosphorus in the brain and nerve eeutres, and to cure them is to reintroduce the deficient property.

O'BDEN'S Pills (Quinine & Phosphorus) have heen invented to accomplish this end, and there are now many thousands who can testify to the success of this mode of treatment. If your hrain is overworked, your nerves unstrung, if you suffer from nervous or general debility, or feel a want of vigour and vitality, try a course of

OBDEN'S Pills (Quinine & Phosphorus). Mr. G. OSBORNE, Coming Events Office, Fleet Street, London, writes, October 31, 1877:—"Having taken 'Cobden's Pills' for a short time, I find myself greatly improved in health. They have had a wonderful effect on my nerves."

OBDEN'S Pills (Quinine & Phosphorus). Produce appetite and a healthy digestion. Renew the strength. Renovate the failing power. Remove sensations of fatigue. Produce sensations of exhilaration. Cause no after depression. Increase the capacity for mental and physical exertion. Produce cheerfulness. Give a coolness and dexterity to the mind. Confer freshness, originality, and energy on the mental processes. Produce sensations of increased muscular power. Stimulate the nerve power.

OBDEN'S Pills (Quinine & Phosphorns). Mr. Howard Paul, 271 Strand, Londou, writes, October 3, 1877 :—" I heg to testify to the efficacy of 'Cobden's Pills.' They are an excellent tonic and nerve stimulant, and most useful in relieving the lassitude that frequently follows extra mental or bodily exertion. I have been considerably benefited in my general health by their use, and recommend them to my friends as opportunities occur."

OBDEN'S Pills (Quinine & Phosphorus). Mr. W. Randall, f Sanger's Amphitheatre, writes, October 8, 1877;—
"I have derived immense benefit from taking 'Cobden's Pills.' For a long period I had heen a martyr to ncrvous debility, and the existence I end. ared was sonactimes unbearable. After taking them three weeks I am a new man. I eat well and sleep well, and giddiness, timidity, and lassitude have entirely gone."

COBDEN'S Pills (Quinine & Phosphorus). Are invaluable as a stimulant or brain tonic. They act, not as a stimulant only, but as a substitute, to some extent, for rest. A couple taken an hour or so hefore cessation of the day's work are found to remove sensations of fatigue, to give a clearness and dexterity to the mind, to produce appetite and a healthy digestion, and to conduce subsequently to the quiet sleep of which overwork so constantly deprives those whose occupation is mental.

COBDEN'S Pills (Quinine & Phosphorus) Mr. R. J. Hamilton, 7 Salford Terrace, Tonbridge, writes, January 29, 1878;—"I can testify to their ('Cobden's Pills') being most valuable in relieving severe pains in the head, as also for Neuralgia."

COBDEN'S Pills (Quinine & Phosphorns). They act directly on the blood, vitalising and enriching it to a surprising degree, huilding up the system, and throwing off the germs of disease. They thoroughly recruit the general bodily health, and restore the nervous system to a proper healthy condition, no matter from what eause impaired.

POBDEN'S Pills (Quinine & Phosphorus). Should he adopted by all abstainers as having a better and more lasting effect as a stimulant than alcohol, without possessing any of its terrible eon-sequences. They have a certain and speedy effect in repairing the partial dilapidations Time or Intemperance may have effected on the system. They fortify it against contagion, and infuse health and vigour to resist disease.

OBDEN'S Pills (Quinine and Phosphorus). The Rev. John Sheward, writes from Milton, Sittinghourne, Kent, October 29, 1878:—'1 am happy to inform you of the great henefit I have derived from your' Cobden's Quinine and Phosphorus Pills.' I have been a sufferer for many months from extreme diarrhea, great weakness, and severe mental depression; my nerves were so shattered that I dreaded the simplest duties, and lost all euergy and pleasure in the performance of them. The despondency I endured became almost unhearable. I tried so many things without avail, that I began to fear my complaint would refuse to yield to any treatment. I saw your Pills advertised, but my little faith prevented me sending for them until the 7th inst., when I determined to try a 2s. 9d. box. The only thing that I now regret is that I did not send for them sooner. I have been taking them just over a fortnight, and the change in my health for the better is very marked. I have lost that horrible depression, my nerves are much stronger, and my general health very much improved. I cannot express how truly thankful I feel for the remarkable and pleasing change. I shall continue to take the Pills, and always resort to them on the first intimation of failing health."

COBDEN'S Pills (Quinine & Phosphorus). Vitalise, purify, and enrich the blood. Regulate the supply of blood to diseased nerves. Nourish diseased spinal nerves. Act as a brain tonic. Act as a general tonic. Are infallible in Neuralgia. Invigorate the whole system. Are the hest tonic. They afford a ready mode of gaining strength. Are pre-eminent as a means of gaining appetite. Particularly useful for delicate females. Powerfully assist the digestive organs. Throw off germs of all diseases, and thoroughly recruit the general hodily health.

OBDEN'S Pills (Quinine & Phosphorus). May be considered a specific in Neuralgia. Their remarkahly rapid and lasting effects in this complaint are perhaps their most striking therapeutical power. In this as in that of some other diseases, they exert a double power; in some instances merely regulating the blood supply to the affected nerves—in others acting in addition as a tonic or nourisher of the diseased spinal nerves, or of the affected nerves themselves. Three doses will invariably cure.

phorus) increase the capacity for mental and physical exertion. If the patient has the dose while in a state of fatigue, then he feels his strength renewel; if while in a state of despondency he takes a more cheerful view of things. A state of depression does not ensue; therefore, whilst acting as a stimulant they differ from all other stimulants, as they leave no distressing after effects.

OBDEN'S Pills (Quinine & Phosphorns). Mr. H. Coleby, Schoolmaster, Nutley School, Uckfield, writes, October 25, 1877:—"I can speak most highly, of your 'Cobden's Pills' as a cure for Neuralgia and severe pains in the head. My sister suffered much for months, without finding any relief from other advertised remedies, till she tried a few doses of the Pills, which completely cured her. This was in May last, and she has not had a return of the pain. I have recommended them to several of my friends, and shall continue to do so, as I am thoroughly convinced of their therapeutical value."

OBDEN'S Pills (Quinine & Phosphorus).—Mr. Richard Robinson, Schoolmaster, All Saints' School, Crawley Down, Crawley, writes, November 19, 1877:—"I and my wife took 'Cobden's Pills,' and have derived considerable henefit from them—especially me. My appetite is increased, and I work better, sleep better, feel more 'a master' than I have for some years, and I am very pleased with and thankful for the results."

OBDEN'S Pills (Quinine & Phosphorus). Assist the digestive juices to convert what we eat and drink into healthy matter, so as to a flord proper nourishment to the hody. Are most useful in allaying the nervous, irritable, and weakly state occasioned by over brainwork, mental anxiety, loss of rest, violent shocks, fast living, overtaxing the powers, or from any of the causes combined under the head of "indiscretions of youth." They are easy to take, being very small and perfectly tasteless. They are prepared with the greatest care by duly qualified Chemists, with improved machinery and all the modern appliances for producing perfect admixture.

COBDEN'S Pills (Quinine & Phosphorus). Are food for the brain, blood, and nerves. Are a specific in Agne. Are infallible for all Low Fevers. Are a preventative of Contagion. Are very useful in Rheumatism. Are given with success in Gout. Are the best remedy for failing powers. They cure depression of spirits. Cure pains in the back. Cure Blood Poisons, Cure Melancholla, Cure Skin Eruptions. Cure Languidness, Cure Impotence.

### SPECIAL NOTICE.

AGENTS WANTED.

Arrangements will be made with gentlemen undertaking the Agency and ordering not less than £5 worth for a local house to house distribution of handbills hearing their names and addresses. Special arrangements as to advertising the names of agents ahroad. Handbills in any language,

All Wholesale Houses, or of the Sole Proprietors,

THE SUSSEX DRUG COMPANY, 135 Queen's Road, Brighton.

# POPULAR GOODS

Send for a £10 Assortment. LIBERAL TERMS TO WHOLESALE AND EXPORT.

# DANIEL JUDSON & SON,

77 SOUTHWARK STREET, LONDON,

JUDSON'S DYES, 6d. 32 Colours. 4/.

JUDSON'S GOLD PAINT, 1/6 and 3/6.

JUDSON'S GOLD INK, 6d.

THE LADY'S INK. 4/. JUDSON'S CAMEL HAIR BRUSHES, 1d. UDSON'S VIOLET INK (FOR CHROMO-GRAPHS), 6d. and 1/. TO MAKE 100 COPIES. 4/ and 8/.

UDSON'S BRONZONETTE, 1s.

TO BRONZE A FENDER IN TEN MINUTES. 8/. JUDSON'S DIPLOMATIC PUZZLE, 6d.
TOOK MEDAL AT PARIS EXHIBITION. 4/. JUDSON'S GUMS, "PERFUMED,"
1/, 6d., 1d. STRONG AND SWEET. 8/, 4/, 8d. JUDSON'S SOLUBLE GLUE, 6d., 3d., 1d. FOR REPAIRING CABINET WORK. 4/, 2/, 8d. UDSON'S CEMENT OF POMPEII, 6d. UDSON'S CORKSCREWS, 1d. and 2d.
A MARVEL OF CHEAPNESS. 2/6 and 12/ gross. and 1/. FOR REPAIRING CHINA AND GLASS: 4/ and 8/. JUDSON'S MARKING INK, 6d. and 1/.
A RELIABLE ARTICLE. 4/and 8/.

JUDSON'S BLACK REVIVER, 6d. JUDSON'S LUBRICATING OIL, 6d.
AS RECOMMENDED BY THE GOVERNMENT. 4/.

JUDSON'S FURNITURE POLISH, 6d. JUDSON'S COLOURED INKS, 3d. CLEANS AND POLISHES. VERY ATTRACTIVE.

JUDSON'S CURRIE CASTOR, 6d. and 1/.
FILLED WITH BEST CURRIE POWDER. 4/ and 8/. JUDSON'S EXTRACTS OF DYES.

JUDSON'S PURE LIME JUICE, 1/, 6d, 1d.
"UNMIXED." / 8/, 4/, 8d.

JUDSON'S PURE GLYCERINE, 6d., 3d.
WHITE AND SWEET. / 4/ and 2/. JUDSON'S SILVER PAINT, 1/6 & 3/6.
FOR DECORATION. 1/6 and 28/. JUDSON'S SILVER INK, 6

JUDSON'S GOLD POWDER, 2/ per oz.,

JUDSON'S GAME OF RIDDLES, 52 CARDS, 2d. MOST AMUSING. 8/ gross.

wide reputation, and are sold by most Retailers.

### "MALTINE. REPORT ON

By W. S. HAINES, M.D.,

Prof. of Chemistry & Toxicology, Rush Medical College.

From THE CHICAGO MEDICAL JOURNAL AND EXAMINER.

"Chicago, November 18, 1879.

"In order to test the comparative merits of MALTINE and the various Malt Extracts in the market, I purchased from different druggists samples of MALTINE and of the most frequently prescribed Extracts of Malt, and have subjected them to CHEMICAL ANALYSIS.

"As the result of these examinations, I find that MALTINE contains from HALF AS MUCH AGAIN to THREE TIMES the quantity of PHOSPHATES (nerve and brain food and bone producers), and from TWICE to FOURTEEN TIMES as much DIASTASE and other ALBUMINOIDS (digestive agents and muscle producers), as ANY of the Extracts of Malt examined. Since the value of such preparations is indicated very exactly by the proportion of these, their two most important constituents, I have no hesitation in pronouncing MALTINE GREATLY SUPERIOR to any Extract of Malt which I have examined.

"The large amount of PHOSPHATES and ALBUMINOIDS found in the MALTINE demonstrates, moreover, the SUPERIOR SKILL and CARE employed in its preparation, and thoroughly warrants the confidence placed in it by the medical profession.

"W. S. HAINES."

# MALTINE

(EXTRACT OF MALTED BARLEY, WHEAT, AND OATS).

The ORIGINAL and ONLY Preparation composed of these Three Cereals.

MALTINE is a highly concentrated extract of malted Barley, malted Wheat, and malted Oats, containing undiminished and unimpaired, all the nutritious principles that can be extracted from these cereals. By the most carefully conducted scientific process we are enabled to offer a perfect article, possessing five to ten times the beneficial and nutritive merit of any alcoholic or fermented Extract of Malt.

#### From The BRITISH MEDICAL JOURNAL.

"Extracts of Malt (i.e., malted barley) are pretty widely known, but this is the First example of a combination of the nutritive principles of these three cercals (barley, wheat, and oats) that we have seen; and the greater value of this combination is apparent, as wheat and oats are especially rich in muscular and fat-producing elements. This preparation is entirely free from the products of fermentation, such as alcohol and carbonic acid, and is very agreeable to the taste. Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents, and its richness in phosphates and in diastase."

#### From The MEDICAL TIMES AND GAZETTE.

"This preparation possesses many qualities of great importance. It is non-alcoholic; it is agreeable to the taste; from its being so concentrated it is more portable than the liquid known as malt extract, and it possesses the virtues of that preparation in a much higher degree, inasmuch as it combines the nutritious principles of the *three* cereals above named, and wheat and outs are especially rich in bone, fat, and muscle-producing elements.

#### From The CHEMIST AND DRUGGIST.

This preparation differs from others of a similar class by being not an extract of barley malt only, but an extract of malted barley, wheat, and outs. Thus, it is claimed, the elements necessary to life are presented in their most perfect form. The 'Maltine' is also produced in vacuo at a temperature of not more than 120° Fahr., a distinct advantage when albuminous substances have to be treated."

We manufacture the following Preparations, the Formulas and Doses of which are printed on the Labels attached to each Bottle.

MALTINE with Cod-Liver Oil.
MALTINE with Cod-Liver Oil and Pancreatine.
MALTINE with Cod-Liver Oil and Phosphates.
MALTINE with Hypophosphites.
MALTO-YERBINE.

MALTINE with Pepsine and Pancreatine.
MALTINE WINE with Pepsine and Pancreatine.

MALTINE WINE. MALTINE with Alteratives.
MALTINE Ferrated.
MALTINE with Beef and Iron.
MALTINE with Phos. Iron, Quinia and Strychnia.
MALTINE with Phosphates, Iron and Quinia.
MALTINE with Phosphates.

MALTINE and COMPOUNDS, in bottles containing 8 and 16 fluid ounces, equal to 12 and 24 ounces by weight, 2/9 and 4/6. The Compounds, 3/6 and 6/6. Also Winchester Quarts, 120 ounces by weight, 20/- and 29/-.

CAUTION.—Owing to spurious attempts at imitation, examine each Bottle, and see that the Capsule is marked—"The MALTINE MANUFACTURING COMPANY, LIMITED," none is genuine without this.

The MALTINE MANUFACTURING COMPANY (Limited), GT. RUSSELL STREET BUILDINGS (corner of Gt. Russell and Charlotte Streets), LONDON.

# OZOKERINE

(REGISTERED).

A new preparation PERFECT as a BASIS for OINTMENTS, of admirable consistency, bland, emollient, antiseptic, and healing.

# RANCID.

"Moderate in price, and deserving a eareful trial."—British Medical Journal.
"A valuable and useful substance, and will in all probability be very largely used."—Medical Times and Gazette.
"Will take a high positiou among our other pharmaceutical preparations."—Medical Press and Circular.
"Likely to prove useful as a dressing for wounds and excertations,"—Practitioner.

OZOKERINE is a clear, pale yellow, very slightly fluorescent body, composed of hydrocarbons akin to Paraffine in their chemical characters. It is produced from Ozokerit, or Earth Wax, by the separation of lighter and denser hydrocarbons, and subsequent purification by processes which remove smell and taste, and yield it in the pleasant form which has already gained for it a preference before other similar bodies.

OZOITERINE has been used with remarkable success as a simple dressing for wounds, its mild and healing properties rendering it peculiarly grateful to the patient.

OZOKERINE is unsurpassed as an unquent basis; unchangeable in itself, except by the action of the most powerful chemical agents, it preserves other bodies with which it may be incorporated from all tendencies to decomposition. The superiority of Ozokerine to lard in this respect cannot be over-estimated.

OZOKERINE, in addition to the above advantages, possesses that of being moderate in price, which marks it out as a preparation destined to supersede all other articles hitherto used for similar purposes.

Each Tin is stamped on the lid with the words "FIELD'S OZOKERINE, REGISTERED," without which none is genuine.

ONLY BYMADE

To be obtained of all Wholesale Houses in the United Kingdom and the Colonies.

# CHEMISTS? FOURTEENT

WILL BE HELD AT

WILLIS'S ROOMS, KING STREET, ST. JAMES'S,

WEDNESDAY, JANUARY 21st, 1880.

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CHARLES A. BLAKE, 47 Piccadilly, W.
RICHARD BRENRIDGE, 17 Bloomsbury Square, W.C.
E. N. BUTT, 13 Curzon Street, W.
GEORGE CAWDELL, 12 London Street, Paddington, W.
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T. GREENISH, 20 New Street, Dorset Square, N.W.

MICHAEL CARTEIGHE, Chairman, 180 New Bond Street, W.
JOHN ATTFIELD, Hon. Treasurer, 17 Bloomsbury Square, W.C.

Square, W.C.

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C.

Paddington, W.
C.

EDWARD C. Perks, 1 Sloane Square, S.W.

ARTHUR L. SAVORY, Hon. Secretary, 143 New Bond Street, W.

TICKETS: LADY'S, 12s. 6d.; GENTLEMAN'S, 17s. 6d.—including Refreshments, Supper, and Wine.

MR. DAN GODFREY'S BAND.

# "YOU DIRTY BOY!"

BZ

### GIOVANNI FOCARDI.



OF the many thousands of varied and beautiful exhibits at the Paris Exhibition nothing has proved so attractive or is so well remembered as this wonderfully realistic Statuette, well named in the pages of "Punch" as "a souvenir of 1878," and it will always be associated with this the greatest of all International Exhibitions as the "pièce de résistance"—the one thing universally known and admired. There is always some such remembrances of each Exhibition, from 1851, with its "Happy Boy and Unhappy Boy," and 1862 with its "Reading Girl," to this present instance, but in no former case has so extensive a popularity been achieved.

The experience it delineates is so common to us all, and the work of the sculptor so thoroughly true to nature, that it at once appeals to the youngest as well as the oldest amongst us. On its pedestal in Paris it was from morning to night surrounded by a crowd representing the people of every nationality, the expression in every face testifying to the skill of the sculptor and the irresistible humour of his subject.

It is now well known that this Statuette was a commission in the marble from A. & F. Pears, Soap Makers to H.R.H. the Prince of Wales, to Signor Focardi, at a cost of £500, for the adornment of their Warehouse, and the Proprietors, at the request of many Connoisseurs and admirers of Art, have caused reproductions to be made in Terra

Cotta of about the size of the original marble, which they now offer at the prices annexed. As an attraction for the Wholesale or Retail Warehouse in any business it has never been equalled, for, as Mr. George Augustus Sala has said of it, it arrests the attention of "old and young, gentle and simple"; and it may be safely stated that, displayed as an advertisement and means to popularity, it is the cheapest ever offered, for an expenditure of ten times the amount on newspaper or other advertisement in the public press would fail to produce an equal notoriety in any city or town of the world. Annexed are a few extracts from among hundreds of criticisms.

#### FROM TRADE LETTERS.

The Broadway, Tunbridge Wells.

The Statuette has been a brilliant advertisement: my Pharmacy is visited by every one curious to see the "DIRTY BOY." The local press have given it a most flattering notice. Yours faithfully,

GEORGE CHEVERTON.

Cooper's Effervescing Lozenge Warehouse, Oxford Street, London, W. "YOU DIRTY POY" is a never-ending amusement: every passer stops to smile.

W. T. COOPER.

"THE DIRTY BOY" is the attraction of the town. It is worth £20 to me as an advertisement alone.

F. FOSTER, Druggist, Scarboro'.

Trade Price of Terra Cotta Reproductions, delivered in London.

£6 6s. net.

Height of the Figure. 25 in.

Size of its base, depth. width.  $17\frac{1}{2}$  in.  $13\frac{1}{2}$  in.

A. & F. PEARS,

SOAP MAKERS TO H.R.H



THE PRINCE OF WALES,

BY APPOINTMENT,

91 GREAT RUSSELL STREET, LONDON, W.C.

# THE SCOTTISH

# MUTUAL LIFE ASSURANCE SOCIETY.

ESTABLISHED 1815.

President.—HIS GRACE THE DUKE OF RICHMOND AND GORDON, K.G., D.C.L. (Oxon.)

THE HON. LORD DEAS; THE RIGHT HON. THE EARL OF HADDINGTON;

Vice-Presidents. The Right Hon. The Earl of Rosebery; The Most Hon. The Marquis of Tweeddale.

Fund £7,000,000 Assurance Annual Revenue £880,000 Claims Paid £11,000,000 Profit Divided. £5,500,000

# 1880 is the BONUS

Entrants before 31st December will participate in the

# SEVEN YEARS' PROFIT

HEAD OFFICE: 9 ST. ANDREW SQUARE, EDINBURGH.

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Agencies in all the important towns of the three Kingdoms.

SAMUEL RALEIGH, Manager. Aw. H. TURNBULL, Secretary.

Edinburgh, December, 1879.

Copies of the last Annual Report, with Accounts, Prospectuses, and Forms of Proposals, may be obtained on application at any of the Society's Offices or Agencies.

# E. GALLAIS & CO., WATERS

MARGARET STREET, REGENT STREET, LONDON,

all kinds of Mineral Waters, Wines, Importers Sc.

Post Office Orders to be made payable to E. Gallais & Co., Vere Street Office.

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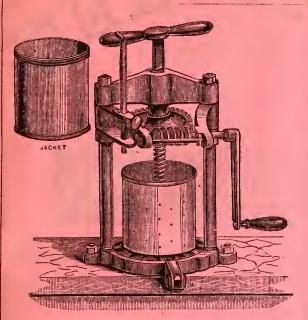
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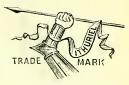
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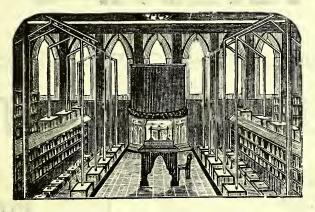
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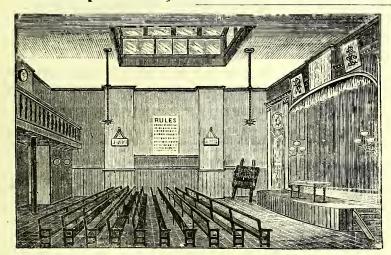
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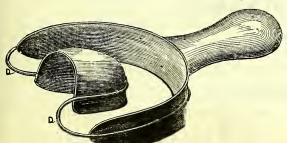


Fig. 1. The Tray empty.

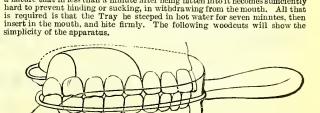


Fig. 2. The Tray in use.

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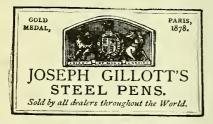
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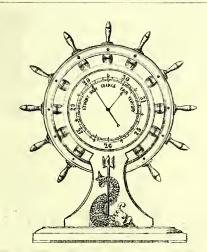
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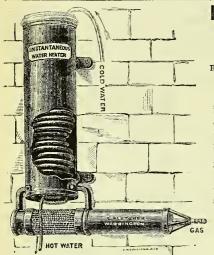
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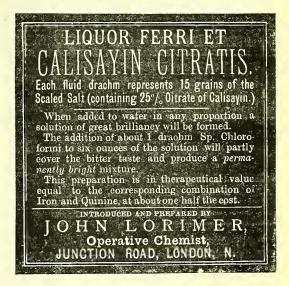
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Application REFUSED.

Application REFUSED.

This action, which was brought for the alleged infringement of the Plaintiff's Trade Mark, was tried at the last sittings at Guidhall, before Mr. Baron Channiff with damages.

The PLAINTIFF was the HUSBAND OF THE PLAINTIFF was the HUSBAND OF THE PROPRIETUR OF BOND'S CRYSTAL PALACE MARKING INK. The Detendant was a Druggist, and he had sold a Marking Ink manufactured by a Mr. Murphy, and the Plaintiff complained that the Labelson Murphy's Ink were an infringement on his Labels. A TRADE MARK is not only a SYMBOL OF CHARACTER, but the general appearance of a label, whereby the public would be deceived.

the public would be deceived.
Their Lordships this morning, after consulting Mr. Baron Cleasby on the matter, refused the rule, that learned judge having expressed his satisfaction with the verdict.—RULE REFUSED. Vide daily papers.

ANOTHER GOLD MEDAL AWARDED,

PARIS ACADEMIE,

For Merit and Superiority of Finish, 2nd Award.

PRIZE MEDAL, PARIS, 1878, 2ND AWARD.

3 Gold and several Silver and Bronze Medals. Hon. Mention, Paris, 1878. PRIZE MEDAL AND GRAND DIPLOMA,

8 Medals.] PHILADELPHIA EXHIBITION, 1876. [7 Diplomas. PURVEYOR TO THE LORDS COMMISSIONERS OF THE ADMIRALTY.

CAUTION.—The only GOLD Medal Marking Ink, Gold and Silver Medals and Diploma, Silver Medal and Diploma, London. Prize Medal, Lyons, Certificate of Merit, signed Albert Edward, Prince of Wales; and Dublin Diploma. Marking Ink Maker under Royal Warrant to Her Majesty the Queen and Court of Holland.

GOLD MEDAL, SOUTH AFRICA, 1877.

HONOURABLE MENTION and ESPECIAL NOTICE from the FRENCH PRESIDENT and H.R.H. the PRINCE OF WALES, Paris Exhibition, 1878. HONOURABLE MENTION and DIPLOMA awarded by the

JURORS, 1878.
SECOND GOLD MEDAL awarded by the PARIS ACADEMY,

1878, for Merit and Superiority of Production.

BOND'S MARKING INK. CAUTION to Wholesale and Retail Vendors.—TAKE NOTICE that on Nov. 26th, 1877, IN AN ACTION "HICKISSON & ANO-THER against MURPHY" JUDGMENT JUDGMENT was given for PLAINTIFFS, WITH DAMAGES AND COSTS, AND A PERPETUAL IN-JUNCTION GRANTED RESTRAINING the said MRS. MURPHY and her AGENTS FROM USING the word "BOND" upon any labels or pedestals manufactured by or for her, OR FROM IN ANY WAY REPRESENTING THE MANUFACTURED INK BY HER TO BE BOND'S MARKING INK.

J. HICKISSON, Proprietor of the Daughter of the late John Bond's Crystal Palace Marking Ink, 75 Southgate Road, London, 6d. 30s

Bottles in Round Blue Cases (Grand Show Card enclosed with each Packet of one dozen) 18. Do. do. (Handsome Show Card enclosed with each dozen) ...

6d. Round Blue Wrapper upon Show Card of one dozen 60s. 30s.

LO ODDOR ON THE TARKE BAND IN CHARACTOR? A SAID OIL MODIC TO MARIOTS Creatistic tenant all others forced Son and do not offend

Have you seen the New Black and Gold Glass Cases with Hinged Black and Gold Framed Linen Specimen of the Crystal Palace with elaborate GOLD Mounts?



Blue Wrappers. Black and White Oval Label.

DEAR Send HICKISSON, Send on receipt the £200 order, as we are much increasing our trade by pushing your Ink in place of useless Novelties, as some other Wholesale Houses are sending other Makers', and thereby the Retail are closing their accounts. The 50 No. 1 Glass Cases are sold. Repeat order immediate.—Yours,

BROWN & CO.

29/4/78.

No Heating Required if allowed to remain three hours previous to Washing.

No Business transacted · on Saturdays. No. 2 Case, containing 3 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, Black and White Oval Label, old style. 16s. each.

No. 3 Case, containing 1 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, old style, and 2 doz. 6d. do. do. 11s. each.

No. 4 Case, containing 3 doz. 6d., Crystal Palace and Royal Indelible, Blue Wrappers, Black and White Oval Label, old style. 8s. 6d, each.

No Business transacted on Saturdays.

## HINDE'S PATENT WIRE HAIR BRUSH.

Silvered Wires

Admittedly the only perfect Wire Brush in the market. Made in a variety of prices and patterns. Beware of other Wire Brushes

MARK



which, with TINNED Wires, are claiming the speciality of the "Silvered Wire Brush," without its value and advantages.

Patronised by H.R.H. the Prince of Wales; H.I.H. the late Louis Napoleon; the Rt. Hon. W. E. Gladstone, M.P.

CHEAPER AND MORE DURABLE THAN BRISTLE; PLATED WIRES, AND WILL NOT SCRATCH. all Important Wholesale Houses in London, Birmingham, Manchester, and Glasgow.

> WHITE AND SOUND TEETH.

### AND BROWN'S JEWSBURY ORIENTAL TOOTH

This old-established and increasingly favourite Dentifrice has been Forty Years before the Public It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

### JEWSBURY and BROWN. CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.

To Shippers.]

DR. DELORME'S [ To Shippers.

In Collapsible Tubes (Registered). sa Tooth Pastr. peculiar for being suitable for Tooth Marca Markanes PRICE ONE SHILLING

Hand Bills with each package, S 1s. (Retail).

## VALUABLE DISCOVERY FOR THE TEETH!

Is furnished with a perfect Battery, sufficient to relieve Toothache, Neuralgia, &c.

Price 93. per dozen, with attractive Show Card.

PERFECTION AT LAST!

6s. 6d. per dozen.

Has every Bristle securely fastened.

Mr. Salter's Perfect Pattern Tooth Brushes are now secured by the New Grip Process.

Samples of each of the above sent free on receipt of 2s. in

G. SALTER & CO., RED LION SQUARE, LONDON,

OR THROUGH WHOLESALE HOUSES.

### KENT & CO., G. B.

IMPORTERS OF IMPORTERS BRUSH MANUFACTURERS, BRISTLES.

MARLBOROUGH STREET, LONDON, GREAT 11

SILVER MEDAL

ESTABLISHED 1777.

[PARIS, 1878.

Kent's Solid Leather Cases, Fitted with Brushes, &c., &c.







Solid Leather Cases, Fitted.



Cases only to contain one pair of Military
Hair Brushes 3s. each.

KENT'S TOOTH BRUSHES
Are manufactured at their Factory at Victoria Park, expressly set apart for this one description of Brush.

C.B. KENT & CS LONDON



KENT'S HAIR BRUCHES, IN WOOD, IVORY, SHELL & PEARL,



KENT'S COMBS, IN INDIA RUBBER, IVORY, OR SHELL.



KENT'S CLOTH BRUSHES, IN WOOD AND IVORY.



KENT'S ROACH CLOTH BRUSHES.



KENT'S HAT BRUSHES, IN WOOD AND IVOKY.



4/6 6/0 8/0 10/0 per doz. 

SECURE

CNUOS

5/0

4/0

3/6

3/0

SHAVING BRUSHES.

8/0 9/6 14/9 18/0 21/0 24/0 28/0 KENT'S NAIL BRUSHES.



Bent Back 7/0 8/6 7/0 8/6 4/0 7/0 8/6 19/0 24/0 28/0 Roached Grooved



SPONGES ON STRINGS.

SPONGE BAGS OF ALL KINDS.



KENT'S FLESH BRUSHES.

No. 22.0

22 23 24 13/0 17/6 22/0 4/0 4/6 7/0 8/0 10/6 12/0 16/0 per doz. 12/0 16/0 18/0 21/0 24/0 27/0 " Handled Nail Brushes Trepanned Fibre 21/6 21/0 27/0 30/0 36/0 42/0 48/0 54/0 per grs.

KENT'S PAINTING BRUSHES are of the highest quality, and warranted of standard sizes. KENT'S HOUSEHOLD AND STABLE BRUSHES of every description.

FREE ON APPLICATION. G. B. KENT AND CO.'S ILLUSTRATED PRICE CURRENT FOR 1879,

### TOOTHACHE SYRINGE UNIVERSAL

Retail, 6d. each.



Wholesale, 4s. per dozen.

Is a great improvement upon the "Dental Syringe," as the fluid is contained in a glass bulb, which enables its contents to be seen, also prevents the liability to evaporation through long keeping or exposure.

## UNIVERSAL CORN AND

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case. N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce 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 Pharmacopeaia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a tresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopeaa.



Per lb. Aqua Anethi, Concent. 40 Aqua Cinnam. Ver. Concent. 60 Aqua Fœniculi, Concent. 40 Aqua Pimentæ, Concent. 410 Aqua Pimentæ Aqna Fœnicum, 4/0, 4/0, Ang. Con. 6/0, Virid. ,, 4/0 Anisi, Camphoræ , " Cassiæ " Flor. Aurent. " " Flor. Sambuci " 4/0 8/6 " Rosæ Virgin " 4/0 4/0 Carui 8/6 The above are put up in Bottles of 11b. or 11b. and npwards. each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Raimes Liverpool; Mather, Woolley, Manchester; Bewley & Draper, Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Raimes & Co., Edinburgh; Foggitt, Thirsk; Goodall & Co., Leeds; Clarke, Bleasdale & Co., York; McKesson & Robbins, New York. Special terms may be had from

B. ROBINSON, Operative Chemist, Distiller and Brewer of British Wines, Manchester.

AWARDS: London and Vienna Exhibitions

### LIQUID AND POWDER. IN

Packed in 1-lb.,  $\frac{1}{2}$ -lb.,  $\frac{1}{4}$ -lb., and 2-oz. Boxes,  $\frac{1}{2}$ -pint 6d. Bottles, and bulk.

Specimen Boards and Circulars supplied when ordered.

MANUFACTURER,

### THOMAS S. JACKSON, 199 BOROUGH, LONDON, S.E.,

And of all Patent Medicine Warehousemen. Write for New Price Lists of Oil and Spirit Varnishes, Colours, Paints, &c.

## ARECA NUT TOOTH PASTE.

For Removing Tartar and Whitening the Teeth, without injuring the Enamel. Sold in Pots, at 6d. and 1s. each.

WOODS'

## QUININE, CANTHARIDINE, & ROSEMARY HAIR CREAM

(With Grease), Restores the Hair if weak or falling off. Price 9d., 1s. 6d. and 3s. 6d. per bottle.

WOODS'

QUININE, CANTHARIDINE, & ROSEMARY HAIR WASH Similar to the above (without grease). Price 1s. 6d. and 3s. 6d. per bottle.

> WOODS' DANDRUFF POMADE. Never fails. 1s. per pot.

Proprietor: W. WOODS, M.P.S., Chemist, Plymouth. SOLD WHOLESALE BY ALL LONDON HOUSES.

## Please observe my

WARRANTED TO STAND ALL CLIMATES.

Of any size, in the very best quality that can possibly be made.

LARGE STOCK KEPT IN LONDON.

Only the Trade supplied.

Every large buyer of these goods should compare my samples and prices before ordering elsewhere, .

### METZ. PAUL

MANUFACTURERS' AGENT.



And sec that every Parcel bears the same on the LABEL AS GUARANTEE, As for obvious reasons many bad foreign productions are being brought into the market.

REGISTERED TRADE MARK,

217 UPPER THAMES STREET, LONDON, E.C.

Bunkers-London and Westminster Bank, Lothbury, E.C.

EWENS' CLARIFIED LARD, MARROW, suets, and oils.

JAMES, EWEN & Sons are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (vide P. J. Vol. I., No. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS, 5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION .- See that each package bears their label with name and weight.



P. A. STEVENS, CHEMIST AND DENTIST, 70 Hydr Boar Warn LONDON, N., Sole Proprietor and Maker of the SILVERY WHITE GUTTA PERCHA ENAMEL for Stopping Decayed Teeth.

REGISTERED\_No. 3745.

P. A. S. 's prepared to supply the above to Wholesale Houses and Chemists, in any quantity, with their name stamped upon cach stick, cut any length.

To be obtained of all Wholesale Houses. Price List and Samples sent post free.

SPECIAL NOTICE.—The words SLDJERY WHITE GUTTA PERCHA
ENAMEL are registered as a Trade Mark, and will be protected.

TRY IT!

## SPANISH

In Bottles,

Unrivalled for RESTOR-ING HAIR, RENEW-ING, CLEANSING. THICKENING, and PREVENTING the Hair



### IT NEVER FAILS! $\mathbf{W} \mathbf{A} \mathbf{S} \mathbf{H}!!$

2/6 & 5/- each.

from FALLING OFF or Turning Grey, instantly removing all Scurf or Dandriff, leaving the skin pure and healthy.

Of Messrs. Low & Haydon, 330 Strand, London; Barclay & Sons, 95 Farringdon Street, London; of any Chemist or Hairdresser; or of A. P. Muddiman, Leighton Buzzard, Beds.



To their Majesties the Emperor of Brazil, the Queen of the Belgians the King of Italy, the King of Spain, the King of Sweden, the King of Portugal, and to H.R.H. the Princess of Wales.



E. RIMMEL begs to draw the particular attention of the Trade to the following Specialties of his Manufacture, which are in great demand in all parts of the World. Articles containing Alcohol are shipped in Bond at a great reduction on the London prices.

### RIMMEL'S

## PERFUMES

FOR THE HANDKERCHIEF.

Canadian Bouquet.
Connaught.
Alexandra.
Prince of Wales.
Duke of Edinburgh.
Ihlang-Ihlang.
Star of India.
Cyprus Flowers.
Vanda (Ærides snat colens).
Tunis Flowers.
White Lilac.
Oriental Hyacinth. Tunis Flowers.
White Lilac.
Oriental Hyacinth.
Tea Flowers,
Wood Violet.
Moss Rose.
White Rose.
Tea Rose.
Patchouly.
Millefleurs.
Musk.
Jasmin.
Magnolia.
New Mown Hay.
Sweet Pea.
Spring Flowers.
Frangipane.
Verveine.
Geranium Rose.
Heliotrope. Geranium Rose.
Heliotrope.
Miel d'Angleterre.
Jockey Club.
Ess Bouquet.
Indian.
Chinese.
Exquisite.
West End.
Cuir de Bussie.
Impératrice.
Rimmel's Bouquet, &e., &c. In Boxes containing 3 or 12 bottles.



## RIMMEL'S TOILET WATERS. &c.

Rimmel's Toilet Vinegar, Of world-wide celebrity.

Rimmel's Toilet Water, Of delicious fragrance.

Lavender Water. Distilled from Mitcham Flowers.

Violet Water, In elegant Parian Bottles.

Eau de Cologne, Much improved from the Original

Recipe. Florida Water, Aromatic and refreshing.

Eau de Lavande Ambrée.

Musk Lavender.

Verbena Water, A Reviving Scent.

West India Bay Rum, For strengthening the Hair.

Assorted Toilet Waters in Sprinkler Bottles.

## RIMMEL'S NEW TRANSPARENT COAL TAR SOAP.

Combining the purifying action of tar with the emollient properties of Transparent Soap, in boxes of three cakes.

## RIMMEL'S LIME JUICE AND GLYCERINE,

RIMMEL'S TILIA SOAP, beautifully scented.

RIMMEL'S DUGONG OIL SOAP, perfumed with Eucalyptus.

THE QUEEN'S SOAP, a Refined Toilet Soap, assorted
Perfumes, Lcttuce, Rose, Jockey Club, Cold Cream, Patchouly. &c.

RIMMEL'S WHITE GLYCERINE and PELLUCID

GLYCERINE SOAP. In Boxes of three. RIMMEL'S ASSORTED 11b. BAR. SOAPS.

RIMMEL'S MUSK-SCENTED OLD BROWN WIND-

SOR SOAP, highly fragrant, in Packets of three.

RIMMEL'S AQUADENTINE, a fragrant floral Extract

for Washing the Mouth and Cleaning and Whitening the Teeth.

For cooling and cleansing the Head, and giving the Hair a beautiful gloss. RIMMEL'S BROWN WINDSOR SOAP, in 7-lb. Boxes. | RIMMEL'S PHILOCOME, QUEEN'S POMMADE, and HAIR OILS, warranted to keep in any climate.

RIMMEL'S PHOTOCHROME, a colour-restoring Pommade. RIMMEL'S VIOLET POWDER, in Packets or Barrels.

RIMMEL'S POUDRE DE RIZ, or Rice Powder, assorted Odours, in 1 lb. Pink Wrapper Packages, or in elegant Boxes.

RIMMEL'S VELVETINE, a Refined Toilet Powder.

RIMMEL'S MAY-DEW, to refresh and beautify the Skin,

RIMMEL'S AROMATIC OZONIZER, or Natural Air Purifier, a Fragrant Powder, producing in house or public places, by simple evaporation, the refreshing and healthy emanations of the Pine and Eucalyptus Forests.

### RIMMEL'S PERFUMED ALMANACS FOR 1880.

"ANCIENT COMPOSERS," Designed by J. Chéret, 6d.; COMIC POCKET BOOK ("Opérette Gems"), Designed by Faustin, 1s. each.

CHRISTMAS, NEW YEAR, and BIRTHDAY CARDS, and SACHETS in immense variety.

AND ELEGANT FANCY PERFUMERY BOXES AND BASKETS, CRACKERS, PERFUME VAPORISERS, EASTER EGGS, VALENTINES, JARDINIERE FOUNTAINS, &c.

Take note that all Rimmel's articles bear the annexed Trade Mark.

SAMPLES TO BE INSPECTED AND PRICE LISTS OBTAINED AT

### WHOLESALE AND WAREHOUSE, 96 STRAND, LONDON. EXPORT

N.B.-A Coloured Pattern Book, illustrating all the principal articles, natural size, is presented to every purchaser to the amount of £50 and upwards.

CO.,

## ASHTON & KINDER,

Chemical and General Drug Merchants, and

## ANILINE DYE

MANUFACTURERS,

52 DALE ST., PICCADILLY, MANCHESTER. WORKS, ROMILEY, CHESHIRE.

MAGENTA—Blue and Red shades. BLUE—Dark and Light shades. GREEN—Blue and Yellow shades. VIOLET—Blue and Red shades. PACHA RED.

AND ALL OTHER COLOURS.

SPECIAL COLOURS for PAPER MAKERS. SPECIAL COLOURS for LEATHER and SKIN MAT MANUFACTURERS. ULTRAMARINE.

MIRBANE.

ESSENCE of MIRBANE, for CHEMISTS, CONFECTIONERS, &c.

ALSO COLOURS FOR HOUSEHOLD USE, PARTICULARLY SUITABLE FOR SALE BY CHEMISTS & DRUGGISTS.

Export Orders and Quantities on Special Terms.

Samples and Price Lists on application.

## R. H. MILLARD, SON & APPLETON,



40 CHARTERHOUSE SQUARE, LONDON, E.C.

## WHOLESALE AND EXPORT DRUGGISTS' SUNDRYMEN,

PATENT MEDICINE VENDORS, FEEDING BOTTLE MANUFACTURERS, ETC., ETC.

## MILLARD'S TOILET REQUISITES & SPECIALITIES.

The attention of the Trade and Export Purchasers is called to the undermentioned articles. Command a ready sale wherever introduced.

MILLARD'S ARECA NUT TOOTH PASTE.—Highly Recommended for the Teeth and Gums. In Pots, 1s. each. Wholesale, 8s. per dozen.

MILLARD'S CHERRY TOOTH PASTE.—An elegantly—prepared Dentifrice for the Teeth and Gums. In Pots, 1s. each. Wholesale, 8s. per dozen.

MILLARD'S SUPERFINE HIGHLY SCENTED VIOLET POWDER.—In Packets, 4d., and Fancy Octagon Boxes, 6d. and 1s. each. Wholesale, 2s. 6d., 4s. and 8s. per dozen.

MILLARD'S PREPARED FULLER'S EARTH.—In Fancy Octagon Boxes, 6d. and 1s. each. Wholesale, 4s. and 8s. per dozen.

MILLARD'S 'INVISIBLE' FACE POWDER.—An exquisite Toilet Preparation for Beautifying and Preserving the Complexion. Specially adapted for use in Hot Climates. Packets, 6d., and Enamel Boxes, with Puff, 1s. and 2s. each. Wholesale, 3s., 8s., and 16s. per dozen.

MILLARD'S FEEDING BOTTLES—
No. 1. Straight white glass, earthenware tops
No. 2. Bent white glass, carthenware tops
No. 3. Straight white glass, carthenware tops
MILLARD'S FEEDING BOTTLES—
No. 4. Bent white glass, boxwood tops
MILLARD'S FEEDING BOTTLES—
No. 5. Straight green glass, earthenware tops
No. 6. Bent green glass, carthenware tops
No. 6. Bent green glass, carthenware tops
No. 7. Straight green glass, boxwood tops
MILLARD'S FEEDING BOTTLES—
No. 7. Straight green glass, boxwood tops
MILLARD'S FEEDING BOTTLES—
Bent white glass, white earthenware tops, complete with glass, white earthenware tops, complete with the and bottle brush in card box
Lube and bottle brush in card b

MILLARD'S MARKING INK,

A PERMANENT AND RELIABLE INK,

Registered Trade Mark and Title.] ... NIGRO

Registered Trade Mark and Title.

3/6 per dozen. One Shilling .. 7/- per dozen.

The whole of the above-mentioned articles are subject to the usual Trade Discount. Special Terms to Wholesale and Export Purchasers.

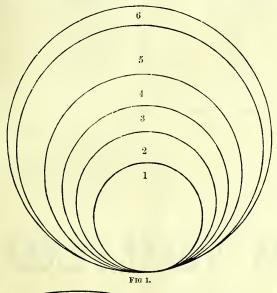
A New Edition of our Price List will be ready early in February, and will be forwarded free per post on receipt of trade card to

R. H. MILLARD, SON & APPLETON, 40 CHARTERHOUSE SQUARE, LONDON, E.C.

## EVANS, &

SOLE AGENTS FOR GREAT BRITAIN & IRELAND FOR MESSRS. E. B. ESTES & SON, NEW YORK, Beg to submit the following quotations for

## DRUGGISTS' TURNED WOOD BOXES.

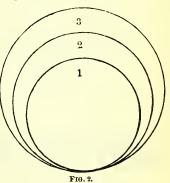


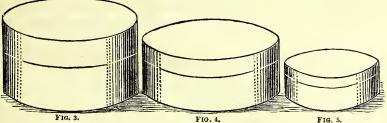
FLAT	г вохі	ES. (Circum	ference as Fig. 1.)
Number.	Height.	Size.	Price.
6	$1\frac{1}{4}$ inch	3 ounce	5/6 per gross
5	$1\frac{3}{16}$ ,,	2 ,,	3/6 ,,
4	$1\frac{1}{8}^{0}$ ,,	1 ,,	2/9 ,,
3	1 ,,	<del>1</del> ,,	2/4 ,,
$^2$	13 "	<del>1</del> ,,	1/6 ,,
1	13 16 9 16 "	1 / <sub>8</sub> ,,	1/0 ,,

## NESTED BOXES.

(FIG. 2.) Height. 4/10 per gross (of 432 boxes).

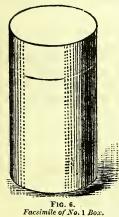
No. 2 (Fig. 1), and  $1\frac{1}{8}$  inch by  $1\frac{11}{16}$  inch, 3/10 per gross (of 288 boxes).





## HIGH BOXES.

Size. Price.  $1\frac{3}{16}$  in.  $\times 1\frac{12}{16}$  in. 2/3 per gross. 1 in.  $\times 1\frac{3}{8}$  in. 1/6 $\frac{11}{16}$  in, × 1 in, 1/0



No.	Size.	Price.	No.	Size.	Price.
[ 1	2 in. $\times \frac{7}{8}$ in.	1/3 per gross.	3	$2\frac{3}{8}$ in. × 1 in.	1/8 per gross.
2	$2\frac{1}{8}$ in. × 1 in.	1/6 ,,	4	$2\frac{1}{2}$ in. $\times 1\frac{1}{8}$ in.	1/10 ,,

PILL BOXES.

These Boxes are Manufactured expressly for Druggists' use, and they are of the best quality, made from well-seasoned White Birch, but not smoothed.

We supply any shape or size to order, without charge for dies, quoting in proportion to stock sizes.

ESTIMATES GIVEN FOR SPECIAL ORDERS.

We can quote prices for these boxes (in original cases free), delivered to Steamer in New York.

0.14 SAMPLES APPLICATION. FREE

SOLE WHOLESALE AGENTS,

## EVANS, SONS & CO., 56

H. SUGDEN, EVANS & CO., Montreal (Canada). EVANS, LESCHER & WEBB, London.

# THE CONDY'S FLUID CO.

FALCON ST., LONDON, E.C.

(A. D. MITCHELL, Managing Partner).

Medicinal Uses: Important to Chemists and Medical Practitioners.

The Condy's Fluid Co. beg to state that their Condy's Fluid (Crimson) IS COMPOSED OF PERMANGANATE OF POTASH ONLY, in strict accordance with the Patent, and with the Standard Medical and Pharmaceutical Works and all published declarations of composition, and to contradict the extraordinary and mystifying statement made by another manufacturer that "GENUINE CONDY'S FLUID IS NOT AND NEVER WAS COMPOSED OF PERMANGANATE OF POTASH."

The Supreme Court of Judicature having settled the question of the Right to Manufacture Condy's Fluid, Ozonised Water, &c., entirely in favour of Dr. Mitchell, the Company representing his interests beg to call attention to the above statement and to their reduced Trade Prices.

## CONTINUED REDUCTION TRADE PRI

THE CONDY'S FLUID CO., FALCON STREET, E.C., maintain the following Reductions in the Trade Prices of their genuine articles, which can always be relied upon as being of full strength and perfect purity:-

CONDY'S PATENT FLUID (Crimson), 1s. size, 6s. per doz.; 2s. size, 12s. per doz.; 4s. size, 24s. per doz. CONDY'S PATENT OZONISED WATER, 2s. size, 12s. per doz.; 3s. 6d. size, 20s. per doz.

CONDY'S PATENT FLUID (Green), CONDY'S REMEDIAL FLUID, CONDY'S HEALTH POWDER, CONCENTRATED VINEGAR, &c., as before.

LIBERAL TERMS TO WHOLESALE AND EXPORT BUYERS.

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## THE CONDY'S FLUID CASE.

FINAL DEFEAT of MR. H. BOLLMANN FAILURE AND EXPOSURE OF THE "TRAP TO CATCH CHEMISTS."

> CONDY v. MITCHELL. COURT OF APPEAL, LINCOLN'S INN, Nov. 27, 1877.

LORD JUSTICE JAMES (without needing to hear defendant's counsel) said—That such a suit should have been instituted at all was very remarkable; but that, after the learned Vice-Chancellor's judgment, this appeal should have been brought on was particularly strange. Dr. Mitchell had obtained his right by payment of a substantial money consideration, and Condy's Fluid And Condy's Ozonised Water were as much his Property as the Plaintiff's. Having that right, Dr. Mitchell was entitled to set up the Condy's Fluid Company.

LORD JUSTICE BAGGALLIAY was of the same opinion. The style of the partnership had been "Bollmann Condy & Co.," and the plaintiff set up in his own name of "H. Bollmann Condy," It was not necessary to consider whether he might have been restrained from so doing; but he came into court with a very bad grace. To get evidence He had resorted to what was, in fact, a trap to catch chemists.

LORD JUSTICE THESIGER was also of that opinion; and especially as to the character of the plaintiff's evidence. A good deal of it seemed to him not admissible at all.

LORD JUSTICE JAMES: APPEAL DISMISSED WITH COSTS.

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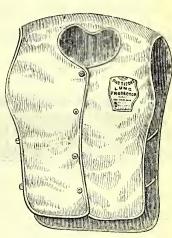
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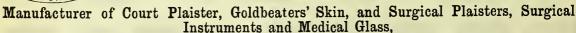
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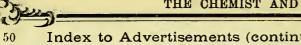
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## **BOURNE & TAYLOR'S**

White Letters, Six on an attractive Show Card. The most saleable Thermometer in the Trade. Per doz., 9/-

### PATENT PIT.T.

Will coat from \(\frac{1}{4}\) to 1 lb. of Pills in less than a quarter of an hour. Full directions with each. Price 25/-

## NEXHAUST

A Watch-shape Bottle filled with powerful Salts. Each in a Box, to sell at One Shilling. Six in a Show Box. Per doz, 7/-

## CHEST

(Full Standard Sizes, Red or White Felt)





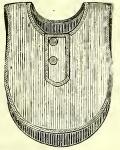






Fig. 2. Fig. 1.—Red or White Felt, No. 0, 6/-; 1, 7/6; 2, 9/6; 3, 11/6; 4, 15/6 -Chamois Skin, Lined with Flannel, No. 0, 6/-; 1, 8/-; 2, 12/-;

r doz. Fig. 1.-

Fig. 1.—Chamois Skin, Lined with Flannel, No. 0, 6/-; 1, 8/-; 2, 12/-; 16/-; 4, 20/- per doz.

Fig. 2.—Ladies' Shape, Red or White Felt, No. 1, Size 11 by 11, 16/-; 12 by 12, 20/-; 3, 13 by 13, 24/- per doz.

Fig. 3.—Vests, for the Chest and Back, Red or White Felt, No. 0, 27/-; 36/-; 2, 42/- per doz.

Fig. 4.—Lung Preservers, Red or White Felt (these are cut out of one eee, and have no seam on the shoulder), No. 1, 19/-; 2, 25/-; 3, 32/-; 38/- per doz.

; 3.

Fig. 4.—Lung Preservers, Chamois Skin, lined with France, No. 1, 18/-; 2, 28/-; 3, 36/-; 4, 45/- per doz.

Fig. 5.—The "Bon Ton," Quilted Satin, very handsome, No. 1, 18/-; 2, 21/-; 3, 24/- per doz.

Hare Skins, lined with Silk, 18/-, 21/- per doz.

Opossum ditto, 18/-, 21/-, 24/- per doz.

English Rabbit, 18/- per doz.

Labrador Fox, 12/- and 15/- per doz.

White Polish Rabbit, 18/-, 21/- per doz.

(B. & T.'s Chest Protectors are neatly put-up in Glass-top Boxes, containing One Dozen.)

## RESPIRATO

•				Descri	otion								Shape	Price	Price	
The Shilling Respirator Metallic, Cotton Velvet Pa	 ds												Oval	Each. 1/- 2/-	per do £0 8 0 12	0 0
" Silk Velvet Pads Silver-plated Wire, Silk V		••			••	••	••	• •	• •	• •	• •		**	2 6	0 18	Õ
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" "	,,	Withou	t Ends.		••	• •						••	Square	4/-	1 8	Ŏ
,, Elastic	Silk Mouth	ie ce	Ends.					••	••	•••	• •	• • •	"	3/6 4/-	1 10	0
Gold-plated ,, Silk Three-fold Silver-plated, V	Velvet Pade	on lastle	Month			••	••	••		••			"	7/6	, 2 8	Ŏ
" Gold-plated	. 19		Mouths	nece						• • • • • • • • • • • • • • • • • • • •	• •		. 22	6/- 7/6	1 16	0
The Aërial Respirator, Silv	er-plated, I d-plated	Ladies'			•••								Oval	5/-	1 10	Ŏ
,, Silv	er-plated,	Gents'							••				"	6/- 6/-	2 2 1 16	0
" Gol	d-plated	A 200 . No.							••				"	7/6	2 8	ŏ
Gold-plated Wire, full size	(1116	Acriais	may be i	ad cover	ea witt	blae	k or dra	10.)					,,	7/6	2 8	0
Gold-plates, full size Orinasal, Silver-plated Wir		••								• •			33	7/6	2 8	0
Ladies' Miniature, Silver-p	lated					::	• •	• •			• •	• •	Square Oval	4/- 5/-	1 10	0
The Manifold Requireston of		••			111 771								a. "	6/-	2 2	0
The Manifold Respirator, of Ditto ditto	ditto	power, ec	ntaining ditto	g six Met	шис Pla ditt	tes, ic	our or w	nich ai ditto	e mov	abie, Go di	id-pla	tea	Square Oval	10/6 10/6	3 12 3 12	0
Gents' full size, Silver-plat	he Manifold		tor may	be worn	with o	r with	out pla	tes a a	and $b.)$					0.0		
" " Gold-plate	d	••			••	• •	••	::					"	5/- 6/-	1 10 2	0
The Cotton-wool Respirato					• •	••		'		• •	••		Orinasal	5/-	1 16	0
" "	Gold-pla	tea				••					::	••	Oval	8/6 5/-	3 °0 1 16	0
		(As rec	ommend	ed by Pro		FYND.			- '							
1, 2, and 3 4, 5, 6, 10, 11, 16, 17, 18, 2	1 00 00 0	. 8- 05		1 Metal						14 and 1	5	. ,		Contain 3	Metallic P	lates.
2, 0, 0, 10, 11, 10, 11, 10, 2	1, 22, 23, 2	4, & 25	<b>33</b> €	2 ,,	Plate	s.	,, 19	and 20	···	••		• •		,, 6	19	"

OURNE & TAYLOR, 35 Castle St., Holborn, London, E.C.

The Special Attention of the Trade is called to

# BENZINE COLLAS,

Which is acknowledged on all hands to be the most reliable Preparation for Removing Grease, Oil, Tar, Wax, or Paint, from every description of Wearing Apparel or Household Stuffs. It neither injures the Colour or Texture nor leaves any odour or stain. It is neatly got up, and is a most saleable Article.

Observe the Word "COLLAS" on label and cap.

1,000 HANDBILLS, with NAME and ADDRESS,

Will be printed for any Chemist who gives an order for

ONE POUND'S WORTH OF BENZINE
COLLAS,

AT THE FOLLOWING PRICES, VIZ.:-

6d., 4s. 1s., 8s. 1s. 6d., 13s. 6d. Subject to discount.

BODSECT TO DISCOUNT.

Special Quotations to Shippers and Large Buyers on application to

## JOHN SANGER & SONS,

252 OXFORD STREET,

LONDON, W.

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TAYLOR'S

## ANTI-EPILEPTIC MEDICINE.

NOTICE TO CHEMISTS.

Epilepsy being considered incurable by most medical men we would call your special attention to this medicine, which ha proved a cure in many cases, and in none failed to give relief If, therefore, you know any one in your town who suffers, an will kindly interest yourself in the matter,

## MESSRS. W. LAMBERT & CO.,

1a VERE STREET, LONDON, W.,

Will forward you a SAMPLE BOTTLE FREE to an London House; and your future recommendations, when yo have proved its efficacy, will be esteemed. A few descriptive handbills can be sent with it, for your distribution, if desired.

## MARTIN'S SEWING MACHINE OIL

For Cleaning and Oiling Sewing Machines,
Prepared expressly for Sewing Machines

It keeps them in good order and makes them work easy. Will last longer than any other Oil, and does not dry or corrod

A little of this upon the working parts will clear awa the clogged oil and dirt caused by using common oils.

ALSO,

## LAMBERT'S BICYCLE OIL

Equally useful for Bicycles and Light Machinery.

Both are sold in Bottles, 6d. each; wholesale, 4 Subject to usual discount.

Special Quotations to Shippers and Large Buyers.

LAMBERT & CO., 1a Vere St., Oxford St., W

# DR. SCOTT'S BILIOUS & LIVER PILLS

Which have been in use upwards of 70 years, are a medici that can be safely recommended by all Medicine Vendors as mild and effectual aperient for both sexes. They never car griping. They are useful for all Bilious and Liver Complain Indigestion, Wind, Spasms, Foul Breath, Nervous Depressis Irritability, Lassitude, Loss of Appetite, Dyspepsia, Heartburger Sour Eructations, Lowness of Spirits, &c.

Handbills, with Name and Address, can be had, either for coun use or house to house distribution, on application to the Proprietors,

MESSRS. W. LAMBERT & CO.
1a VERE STREET, LONDON, W.

## PHARMACEUTICAL SPECIALITIES

R. WARNER & CO., PHILADELPHIA.

## PARVULES

### NIMUM DOSES FOR CHILDREN AND OTHERS.

t the solicitation of our medical friends we have prepared this new s of preparations, denominated PARVULES to distinguish them in Pills and Granules. They are designed for the administration of licines in minute doses for children, and frequent repetition in cases this. It is claimed by some practitioners that small doses given at tintervals exert a more curative effect.

HE DOSE of any of the Parvules will vary from one to four according age, or the frequency of their administration. For instance, one rule every hour, or two every two hours, or three every three hours, so on for adults. For children, one three times a day is the immundose.

WIF These are not intended to supplant the use of Pills and Granules.

### rice One Shilling per Bottle of 100 Each.

Pocket-Cases furnished with 20 Varieties for the use of Country Practitioners, 1%. net.

		1-100 gr.	Parv.	ERGOTINÆ	1.	. J.D g	Tr.
v.	ACIDI SALICYLICI	1- 10 ,,	Parv.	FERRI REDACTI	1-	10 .	
22,		1- 20 ,		GELSEMINI RAD.			
v.	ACONITI RAD	3- 20 .,		HYDRG. CUM CRE'S			
$v_{\bullet}$	ALOIN	1- 10 /		HYDRASTIN.			
		1- 10 ,,		lodoformi			
v.	AMMONII CHLORIDI	1- 10					
	ANTIMONII ET POT-		Parv.	MORPHLE SCLPH.	1-	50	
	ASS. TART	1-100			1-		
v.	ARNICÆ FLOR	1. 5		OPTT			
v,	ARSENICI IODIDI	1-100		PIPERINE			
v.	BELLADONNÆ FOL	1- 20		PODOPHYLLINI			
		1- 20 ,,		POTASSII BROMIDI			
D.		1- 20		POTASSII ARSENTI			
υ.		1- 50 ,,		POTASSII NITRATI			
		1- 20 ,,		QUINIZE SULPHAT			
		1- 20 ,,		SANTONINI			
		, , ,				- 0	71

## INGLUVIN

### VENTRICULUS CALLOSUS GALLINACEUS.

(From the Gizzard of the Domestic Fowl.)

A NEW REMEDY-SUPERIOR TO PEPSINE.

A Powder prescribed in the same manner, doses, and combinations. A Specific for Vomiting in Pregnancy.

INCLUVIN, in 10-grain doses (taken before entering rough water, &c.), is also found to be preventive of Sea Sickness. It is also an unfailing remedy for pronounced Atonic Dyspepsia and Chronic Indigestion. In fact, for Gastric Irregularity in its varied and most obstinate forms it is proved to be of the highest therapeutic value.

PRICE per BOTTLE, 4s.

THE SPECIAL ATTENTION OF DRUGGISTS IS CALLED TO

# SUGAR-COATED PILLS,

Complete List of which, with terms, will be forwarded on application. Liberal Discount to Wholesale Buyers.

The superior excellence of WARNER & CO.'S over other "Coated Fills" consists in their Complete Solubility, Reliability in Action, and Perfection of Finish.

WARNER & CO.'S preparations may be obtained of the following, in addition to many others:—Guattan & Co., Belfast; Phoctor & Son, Newcastle-on-Tyne; Symes & Co., Liverpool; T. R. Lester, Cork; S. J. Coley, Strond; O. R. Dawson, Southampton; Lorthouss & Salt, Salt, Bale, in London, of Messis, Banclay & Sons, W. Edwinds & Son, J. Sanger & Sons, W. Sitton & Co., Young & Postans, Baker Street, W., &c., &c.

Sole Depot in Great Britain, F. NEWBERY & SONS, 37 Newgate St., London, E.C.

## NEWBERY & SONS.

37 Newgate Street, LONDON, E.C.

## CHEST PROTECTORS.

Newbery's "PALLADIUMS" are highly approved by the Medical profession. Are cut on true anatomical principles so as to give complete protection to the lobes and apices of the lungs. For Reduc d Prices, see The CHEMIST AND DRUGGIST for December, 1879, page 59.

## MUSTARD PLASTERS.

Equal, if not superior, to any in the market, and affording a reasonable profit to dealers. 6d. Damp-proof Cases at 8s. per dozen; 1s. 8d. Tins, at 10s. 6d. per dozen.

## BERDOE'S PERFUMES.

Triple strength for reducing. Bottles contain 5 oz., 10 oz., or 20 oz. Upwards of 50 varieties, from 9s. 6d. per 20 oz. Bottles not charged for. Complete Detailed List forwarded on application. Details in Chemist and Druggist for August. See also Trade Notices, page 201.

## BUYERS FOR CASH

Will obtain every advantage by placing Orders and Indents with F. NEWBERY & SONS.



SAVAR'S Animal Soap (non-poisonous), for washing Dogs, &c. 6d. packets.

SAVAR'S Breast Exhausters, fitted with the latest improvements, in handsomely labelled boxes.

SAVAR'S Breast Relievers, fitted with the latest improvements, in handsomely labelled boxes.

SAVAR'S Chest Protectors, single and double, best quality, usual prices.

SAVAR'S Coal Tar Soap, prepared from an original formula, a most elegant and agreeable Toilet Disinfectant. In Tablets 4d. and 6d. each.

SAVAR'S Clinical Thermometer, with Magnifying Permanent Index, indelible scale

SAVAR'S Glass Ear Syringe, with ring for self use.

SAVAR'S Family Enema, complete in mahogany box.

SAVAR'S Feeding Bottles. These Feeding Bottles are acknowledged



by our eustomers to be far superior to any others at the price, the quality of the materials used, and their handsome and attractive appearance commanding a ready sale. 6d., 1/, and 2/ each.

SAVAR'S Fly Papers, for the destruction of insects, &c.

SAVAR'S Glass Nipple Shields, fitted completely. Used to obviate the necessity of any derangement of the dress.

SAVAR'S Oiled Silk, in 1 yard, 1/ and 6d. boxes, handsomely labelled.



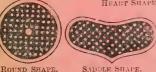
FIG. 2.











SAVAR'S Porous Marginal Plasters, on Leather:-

Balsamic, Belladonna, Calefaciens, Capsicum, Opium, Roborans, Strengthening. These Plasters are spread on leather specially prepared and perforated; they are ventilating, more pliable, conform to the skin more closely, and are in every way superior to ordinary Marginal, or to the Indiarubber Porous Plasters spread on linen. 3d., 4d., 6d., 8d., 1s., and 1s. 6d. each.

SAVAR'S Portable Tincture Press. Improved wrought-tinned cylinder,  $6\frac{3}{4}$  by  $5\frac{1}{2}$  inches.

SAVAR'S Toilet Soaps. See List.

A COMPLETE PRICE CURRENT OF DRUGGISTS' SUNDRIES SUPPLIED ON APPLICATION.

Purchasers abroad are requested to state distinctly that Savar's Proprietary articles are required. All are protected with the Trade Mark. Sole Wholesale Agents,

H. SUGDEN, EVANS & CO., Montreal (Canada).

EVANS, LESCHER & WEBB, London:

## TO THE TRADE ONLY.]

## WINES AND SPIRITS.

## 10 VILLIERS STREET, LONDON.

Our System of Business is to deal specially with the Trade in carefully classified and regular qualities of cheap and moderate-priced Wines and Spirits.

With an ample capital we purchase abroad, or on the London market when particular opportunities occur; our expenses are kept to the lowest practicable point; and our small uniform rate of profit never exceeds 5 per cent. net on our turnover.

Although we do not object to give credit, our constant endeavour to keep free from bad debts makes us extremely cautious in this matter: it is for the interest of all who deal with us that this should be so; and we are sorry that some whose accounts we afterwards find we should have been pleased to see on our books take offence at our caution when the commencement of the account is proposed.

Our house here, which has over 1,600 accounts open with the trade, keeps a large duty-paid stock—one of the largest in England—in order to supply uniform qualities over a lengthened time; and simple numbers, agreeing with the enclosed Price-list, being put on the corks, the varieties are easily distinguished, and you are left to fix your own rate of profit and dispose of the goods as though bottled by yourself, we standing in the position of your warehouse-keepers, furnishing you from time to time with the list of stock at your disposal, and making sure that the goods are in good condition and of good value at the respective prices.

We know that most houses who have given the same trouble and expense to the business as we have done have put their own names on the corks, labels, &c., thus making the retail trade a medium for establishing monopolies, perhaps against the interests of the retailers. We desire to see whether the contrary system—which, whilst it supplies you with a large and Reliable Stock, leaves you free to make a business for yourself, free as to purchases and free in rate of profit—will not continue to meet with growing favour. At all events, we recommend these remarks to your consideration.

## W. H. CHAPLIN & CO.

POSTSCRIPT, Jan. 3, 1880.—The above Circular was issued some time since, and we have found the number of our customers steadily increasing. Wherever it is desired, we arrange to put our *customer's own name* on the seals and labels.

We shall be glad to forward our Price List with particulars of terms, samples, &c., free on application, accompanied by trade card, to any licensed Wine and Spirit Dealer.

# FIELD'S LIQUOR TARAXACI.

Concentrated IN VACUO to a

Strength double that of the Succus Taraxaci of the Pharmacopæia.

The process by which this preparation is manufactured entirely excludes the injurious effects of Heat, Oxidation, and Fermentation. The active constituents remain quite uninjured; and, owing to the great care with which any incipient change is guarded against during the manufacture, this preparation KEEPS PERFECTLY, whilst the expressed Juice of the British Pharmacopæia, although containing 25 per cent. of Rectified Spirit, quickly becomes mawkishly sweet, through the conversion of its active constituents into inert saccharine matter.

Price 4/ per lb. V

W. Qts. 3/10

## FIELD'S LIQUOR CINCHONÆ CORDIFOLIÆ.

This well-known preparation contains the whole of the active ingredients of Bark, and is manufactured with great care by a process specially devised for that purpose. It is made from the best Bark, and will be found a great desideratum to Druggists and Medical Men, as it furnishes a ready means of at once preparing Decoction of Bark quite equal to that made from fresh Bark.

Thirty minims of this Preparation, diluted to an ounce (with distilled water), forms the Desoctum Cinchonæ Flavæ of the Pharmacopæia.

Price 10/ per lb.

## LIQUOR CINCHONÆ RUB.

1 fl. oz. equal to 1 oz. of Best Red Bark.

## Price 10/ per lb.

Messrs. Cleaver & Co. beg to call special attention to the following preparations. They may be depended upon for being made only from best drugs, and will keep for any length of time without formation of unsightly deposits.

Inf. Rosæ Acid. Conc.	***		2/6	per lb.	Ext. Ergotæ Liq 3/6 per lb.
" Gentian. Co. Conc.	• • •	• • •	1/6	22	,, Sarsæ. ,, 9/6 ,,
"Senegæ	• • •	• • •	3/-	"	" , Specially purified from all mucilaginous matter 12/- ,
"Buchu	• • •	• • •	1/6	"	mucilaginous matter $12/-$ ,,
Dec. Sarsæ. Co. Conc.	•••		4/-		", Glycyrrhizæ Liq 2/8 "
" Alocs " "	• • •	•••	4/6	"	Succ. Taraxaci, B.P 2/- "
0 00			7 (0		
Conf. Sennæ, warranted	very act	ave	1/6	"	Liq. Sennæ Dulc 2/6 ,,
C 1	*	3			

Special attention is called to these preparations of Senna which are made entirely from Alexandrian Senna.

Can be obtained of all Wholesale Houses, or direct from the Manufacturers,

## CLEAVER & CO.

(Late J. J. FIELD)

Wholesale Pharmaceutical Chemists,

PAULTON SQUARE, KING'S ROAD, CHELSEA.

SPECIALTE:-

Concentrated Infusions, Liquid Extracts, &c., prepared in Vacuo from selected drugs only, at prices same as charged by all Wholesale Houses.

JANUARY 1st, 1880.

# PERRY DAVIS' PAIN KILLER.

Arrangements have been made for the prompt supply of this popular American Medicine, and I am now in a position to fill orders at sight for the 13½d. and 2s. 9d. sizes, and for the 4s. 6d. and 1ls. sizes on and after February 1st.

The prices are unchanged.

## NOTICE TO RETAIL CHEMISTS.

On behalf of Messrs. Perry Davis & Son, of Providence, Rhode Island, U.S., Sole Proprietors of the Pain Killer, I beg to enquire if you are at the present time supplied with Counter Bills, Show Cards, and other printed matter relating to Pain Killer, to support your kind endeavours to promote its sale. Any intimation you may be pleased to make as to your requirements in this direction will receive prompt attention. Your orders direct, or through the Wholesale Houses with whom you have accounts, can now be filled without delay.

January 1st, 1880.

## JOHN M. RICHARDS,

WHOLESALE AGENT FOR THE SALE OF PERRY DAVIS' VEGETABLE PAIN KILLER IN GREAT BRITAIN,

GREAT RUSSELL STREET, LONDON.

### G. F. SNOOK & SON'S

NEW ARNICATED

## CORN AND BUN PLAISTER.



OR WHITE SPREAD

# PLAISTER.

REGISTERED)

They will be found to possess greater advantages over all other Plaisters hitherto produced.

Their chief qualities depend upon their superior adhesiveness, being composed of very adhesive ingredients, and, owing to their shape, are not so liable to be drawn off with the sock or stocking.

Price List on receipt of Business Card, or of all Wholesale Houses. Special Quotations to Large Buyers.

LONDON, CITY ROAD, E.C.

### KILLER. Mice eat it readily, and Die on the spot. VERMIN



Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.
From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your Vermin Killer last night, doubting its efficacy; to-day he called in to say that he had found fiften dead nice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1857.—I have tried BATILE'S VERMIN KILLER, and have found it most reflectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

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

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BARBER'S VERMIN KILLER.

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Kills Mice upon the spot. In packets, 3d., 6d., and 1s.

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Testimonial from Her Majesty's Ratcatcher.

"Hampton, Middlesex, May 25th, 1870.—I have been more than forty years employed at Hampton Court Palace, the Royal Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin, and after trying all the rat poisons which I have heard of, I now use Barber's Phosphor Paste and Vermin Killen, with which alone I am able to keep these ancient palaces and national works free from vermin.

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For use add two tablespoonfuls of either of the above Concentrated Waters to a tumbler of cold water, or Soda Water if preferred, and drink the contents. Tepid water may be used if cold be objected to.

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Either of these is most efficacious for the cure of the numerous maladies resulting from Indigestion, Dyspepsia, &c.

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Is superior to all other Preparations, for the following reasons:-

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Spurious imitations of Condy's Fluid and Ozonised Water are being sold at all kinds of prices under cover of my name. Chemists are requested to see that each label bears my facsimile signature and address as above, otherwise the article is not genuine and of my manufacture.

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THESE Powders have now been before the Public for Ten Years. The large and increasing sale, together with the numerous testimonials constantly being received, prove that the public are fully alive to the fact that they are the BEST MEDICINE for DISEASES to which PIGS are subject and are also the best CONDIMENT known. They have an immense sale wherever introduced, and the Proprietor is desirous to assist all who will undertake to keep them in stock by supplying them with Show Cards, Posters, and Counter Bills with name and address thereon. They are put up in Penny Powders, each Powder a full dose; but are almost invariably sold in Packets containing Six and Twelve Powders to Retail at Fivepence and Tenpence. Retailers will be charged 40/- per Gross for Fivepenny, and 80/- per Gross for Tenpenny Packets, less usual discount, by

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UNAUTHORISED USERS OF OUR PRIZE MEDALS WILL BE DEALT WITH ACCORDING TO





A NTISEPTIC DISINFECTANT for Preventing Epidemics and Destroying Infectious Diseases, as supplied to the Royal Arsenal, Woolwich. This Fluid is a powerful Antiscptic, Disinfectant, and Deodoriser, and from its harmlessness may be applied in any direction without any ill effects, and with the best possible results. THE "PRINCESS ALICE" CALAMITY.—The Sanitary Fluid was used at the Woolwich Dockyard for Disinfecting, over 600 Bodies. The Clothing taken from the Bodies and over 500 Sheets were also Disinfected in large Cauldrons, also the Building, Yards, &c., giving the greatest satisfaction to the Dockyard and Parish Authorities. The work was carried out under the superintendence of Mr. HARMER.

TESTIMONIAL.—"H.M. Dockyard, Woolwich, September 23, 1878. Sir.—I beg to inform you that I consider your Disinfectant as applied in the Dockyard both to buildings and clothing after the removal of the dead from the premises, very effications, and, from its cleanliness and absence of smell, very superior to the Disinfectants in the form of powder generally used.—Faithfully yours, J. T. Barrington, Assistant Commissary General, Mr. Harmer, Stratford, E." For Asylums, Schools, Sanitary Anthorities, Railway and Dock Companies, Workhouses, Shipping, Stables, Cowhouses, Cattle in transport, &c. Price I/per bottle; 3/6 per gallon; large quantities at a cheaper rate, of the Sole Manufacturer, W. J. HARMER, West Ham Lane, Stratford, E., or through Agents.

The MAGIC ELUID for General Household Purposes, price 1/6 per gallon. Write for Pamphlet, with Testimonials. &c. NON-POISONOUS.

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## INSTANTANEOUS DISINFECTANT & DEODORIZER

IS THE MOST RELIABLE AND THE CHEAPEST IN THE WORLD.

Harmless to furniture and linen. Does not stain. less, colourless, and Odourless, but powerful! It instantly deodorises and disinfects any material it is applied to, no matter how feetid or offensive! Destroys and neutralises instantly all poisonous gases, arrests decomposition, and prevents contagion. Reliable and safe in the sick chamber, the hospital, and for all sanitary purposes.
ONLY ONE QUALITY—THE BEST!"

In 1s. and 2s. bottles, sufficient to make two gallons of the best and cheapest disinfectant in the world. Special prices by the gallon or quantity.

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

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, Liverpool, and York, are now and have been Agents 45 years.

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This paper is manufactured from Manilla grass and is impregnated with the following medicaments, viz.:—Carbolic Acid, Wormwood, and Bromo-Chloralum, in such proportions as to render its use at once healing and preventive.

The formula is the property of the eminent Dr. Webster, who testifies that "during a lengthened experience" he has "never known it to prove inoperative."

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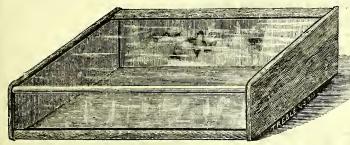


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Made of Solid Mahogany and French Polished; Polished Plate Glass Top and Front \( \frac{1}{4} \) inch thick.

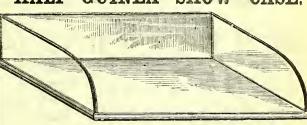
This Show Case cannot be equalled at the price.

Among the many advantages combined in this useful and inexpensive Show Case, we may mention that it is so made that two or any number may be placed together, to occupy full length of counter if required. It is made 24 in. long, 18 in. wide, 8 in. high at back, and 7 in. in front. A bright burnished Silverdine Bar has been introduced in front, which has an excellent effect; does not change colour; is always bright, and merely requires dusting. The back of Case is hinged to open, and secured by a brass spring catch. The bottom of Case is covered with blue leatherette.

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Packed in Deal Box for enclosure Free of Charge.

This neat and elegant little Show Case is 14 inches long, 10 inches back to front, 3 inches deep inside, with clear bent glass top, glass ends, silvered glass mirror back, the bottom lined with blue velvet, and edged with ebony.

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### **EXHIBITION AWARDS:-**

Paris, 1878, Gold Medal.

Only Medals in London, 1862. Dublin, 1865. New Zealand, 1865. Oporto, 1865.

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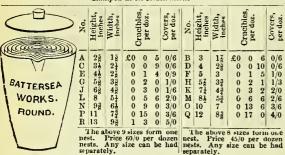
### CLAY CRUCIBLES, ETC.

EXTERIOR DIMENSIONS.

Attention is drawn to the description on the Crucibles below, and in ordering these particulars should be given to prevent errors and disappointments.

### BATTERSEA ROUND.

Stamped as on Illustration.



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Stamped as on Illustration.

No.	Height,	Width, inches	Cmicibles	per doz.		Covers, per doz.	No.	Height,	Width, inches	Cruoibles	per duz.		Covers, per doz.	B
S W Y	4½ 3½ 2½ 2½ 2½	41 31 25 21	£0 0 0	2 1 0 0	0 1 8 5	1/0 0/9 0/6 0/6	T V X Z	4 3 <sup>1</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>2</sub> 1 <sup>3</sup> / <sub>4</sub>	33 24 21 21 13	0 0 0	1 0 0 0	6 10 6 4	1/0 0/9 0/6 0/6	BATTERSEA WORKS TRIANGLE
The above 4 sizes form one nest. Price 4/2 per dozen nests. Any size can be had separately.							nes	t. P	rice :	3/2 De	er d	ozer	m one nests. rately.	

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With or without apertures.



	1	ong		Wide	. :	High.	Pı	ice.	1	1	Long		Wide		High,	P	rice,
No.		in.	•	in.		in.	per	doz.	No.		in.	•	in.	•	in.	per	doz.
Α.	٠.	7	٠.	31/2		$2\frac{1}{2}$		12s.	G.		11		4		31	••	218.
													5}				
													6				
													8				
											15		9	• •	6	• •	54s.
F.	• •	10	• •	6		4	• •	27s.									

Sizes A to F are suited for the Furnaces of the same letters.

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In addition to those priced above, Muffles are made of all shapes and sizes, suitable for Assayers, Enamellers, Dentists, &c.

### SCORIFIERS.

(PER GROSS.)

		,	,	
Inches Diam.	f ",	Price.	Inches Diam.	Price.
1	••	3s. 0d.	23	6s. 0d.
1}		3s. 6d.	3	7s. 6d.
16	••	4s. 0d.	31	9s. 0d. \P.P.C.C.
$\frac{1}{2}$		4s, 6d.	4	10s. 6d.
21		4s 6d.	5	12s. 0d.
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		Diam.				]	Diam.		
	No.	in.		Per doz.			in.		Per doz.
P.P.C.C°	1	$2\frac{1}{2}$	••	1s. 3d.	3	• •	4	• •	1s. 9d.
C.1. 0.0	9	3		1. 64	1 A		5		2s. 0d.

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THE MINT OF THE UNITED STATES AT SAN FRANCISCO,

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SAN FRANCISCO, CAL., April 19, 1877.

SIRS,—I have tested and used the Assay Crucibles and Annealing Cups,

and can with assurance recommend their superior quality and durability.

Respectfully yours, &c.,

O. D. MUNSON, Assayer.

STATE ASSAY OFFICE,

SAN FRANCISCO, May 1, 1877.

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REFECTLY SMOOTH. AND OF THE CORRECT POROSITY

	THE	E AILE	LEHELL	LI DA	,0111, 111	L OL A		A.T. TO	T OHOUZEE
			Diam.		В	eight,			
No.			in.			in.			Per doz.
A.			13			11			2s. 0d. 1965
В.			îî			11	••		2s. 0d.
č.	••	••	11	••		ii			2s. 0d.
	••	• •	1 2	••	••	23	••	••	
D.	• •	• •	14	• •	• •	2	• •	••	2s. 0d.
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Covers for either size, 6d. per doz.



2.—FOR COPPER.

CORNISH FORM AND QUALITY.

Among the English Firms who have received Awards at the Centennial, Philadelphia, are the Patent Plumbago Crucible Company, Battersea Works, London, for Jewellers' and Chemists' Furnaces, Mufflers, Crucibles, and Scorifiers.—Chemist and Druggist.

THE PATENT PLUMBAGO CRUCIBLE

COMPANY

## COMPANY UCIBLE

ORGAN'S PATENT CRUCIBLES).

#### FURNACES. PORTABLE

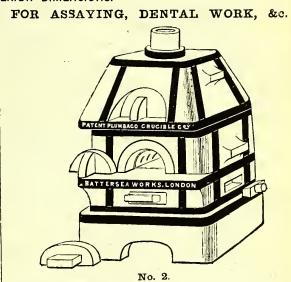
IRON BOUND. EXTERIOR DIMENSIONS.

For MELTING GOLD, SILVER, COPPER, &c.



No. 1.

Melting Furnaces	Diam.	Height	For a Morgan's Patent Crucible	Price
No. A B C D E F	in. 91 92 11 132 142 18	in. 17½ 20 22 26 28 32	No. 2 4 6 8 12 16	£ s. d. 1 0 0 1 5 0 1 10 0 2 5 0 3 0 0 4 0 0



Muffle Furnaces	Diameter	Height	Furnace
No. A B C D F	in.	in.	£. s. d.
	123	24½	2 0 0
	134	25½	2 5 0
	144	27	2 10 0
	152	28½	3 0 0
	164	29½	3 10 0
	172	30	4 0 0



#### POROUS

## BATTERY

RED OR WHITE.

BATTERSEA WORKS

ROUND.

OUTSIDE DIMENSIONS.

FLAT, WITH EARS.

P.P.C.CS

- Diam. 1 in., height 3 in., 1/per doz. Diam 1 ½ in., height 3 in., 1/6 per doz.

  1 ½ in., height 4 in., 2/; 4½ in., 2/; 5 in., 2/6; 5½ in., 3/; 6 in., 3/per doz.

  1 ½ in., height 4 in., 2/; 4½ in., 2/; 5 in., 3/; 5½ in., 3/6; 6 in., 4/;

  1 ½ in., height 4 in., 2/; 4½ in., 2/; 5 in., 3/; 5½ in., 3/6; 6 in., 4/;

  1 ½ in., height 4 in., 2/; 4½ in., 2/6; 5 in., 3/; 5½ in., 3/6; 6 in., 4/;

  2 ½ in., height 4 in., 2/6; 4½ in., 5/6; 7 in., 5/6; 8 in., 5/6;

  3 in., height 6 in., 5/; 7 in., 6/; 7½ in., 5/6; 8 in., 5/6;

  3 in., height 6 in., 5/; 6½ in., 5/6; 7 in., 5/6; 7½ in., 6/; 8 in., 6/;

  3 in., height 6 in., 5/6; 6½ in., 5/6; 7 in., 5/6; 7½ in., 6/; 8 in., 7/;

  3 in., height 6 in., 5/6; 6½ in., 5/6; 7 in., 6/; 8 in., 7/;

  3 in., height 6 in., 5/6; 6½ in., 5/6; 7 in., 6/; 8 in., 7/;

  3 in., height 6 in., 5/6; 6½ in., 5/6; 7 in., 6/; 8 in., 7/;

  3 in., height 6 in., 5/6; 6½ in., 5/6; 7 in., 6/6; 8 in., 7/;

  3 in., height 6 in., 5/6; 10 in., 7/6; 12 in., 6/6; 8 in., 7/;

  3 in., height 6 in., 5/6; 10 in., 8/6; 12 in., 10/per doz.

CELLS

FLAT, all with Ears except those Numbers with

6/ 6/ 20/ 8/
20/
8/
O/
5 4/
3/6
4,
b/
9/6
3/6
10/
6/
一大は、一十十十十十十十二十十十十十十十十十十十十十十十十十十十十十十十十十十十十十

ALL SIZES MADE TO ORDER.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

PLICATION TO

ATTERSEA LONDON. WORKS. S.W. Estab. 1839.]

THE CASH SYSTEM.

[Estab. 1839.

# **JAMES**

TOBACCO & CIGAR MANUFACTURER.

BIRMINGHAM.

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J. W. begs to call the attention of Tobacconists and large buyers to the following lowp rices at which he is offering his well-known brands of Cigars and Tobaccos to holesale cash buyers. Parcels of Z and upwards carriage paid.

#### CIGARS.

		Per Bo	ox of	Per B	ox of
Comet Sensatious	5/9		100	Cabana Kings 11/	100
Cubas	6/6		110	*La Batalla de Sedan	
Abajo Woodvilles	7/		100	(weigh 18 ozs.) 9/ to 12/	100
Mexican Cheroots,				*"Jove" Regalias	
Pickwicks	7/3	12	140	(weigh 18 ozs.) 14/	100
La Clemenza	7/3		100	*Leonoras 12/	100
*Regalia de la Reyna	8/	7.7	100	*La Flor de Britannicas 12/	100
*El Aquila del Desierto			100	Small Corona de Oros 10/	100
*La Flor de la Campana	8/	2.	100	Large ditto (weigh	
*La Fleurette :	8/6	27.	100	21 ozs.) 16/	100
La Flor d'Americas	10/	12	100	*La Particularidads	
" Lopez	10/		100	(weigh 20 ozs.) 14/	100
El Monarcas	10/	1.5	100	† Manilla Cheroots † Ditto Cigars at market price	
Queen's	9,6		200	+Ditto Cigars   at market pri	ces.
CPC1					

These marked thus \* are my own registered brands. Tohacconists and dealers are cautioned against imitations. † These and all other foreign cigars vary with the market, and if any reduction occurs I shall always give my customers the advantage.

#### TOBACCOS.

Common S	Shag : 3/	Bird's Eye	3/2 t	0 3/4
Committee .	1 - (0) + 11	ind a Lije		
	1d. off 6 lbs. and upwards.	Best's Bristol Bird's Eye	3/10 .	. 4/4
X.B.				
			3/8 ,	, 4/4
	1d. off 6 lbs. and upwards.	Returns	3/7	4/
Fine X.B.		West Disco		99 '9/
Time A.D.	3/4		4/4	
	Id. off 6 lbs. and upwards.	Maryland	41	
Cut Caven		T -1-1	'X /	
		Latakia	4/9	
Super Light	nt 3/4	Cut Honey Dew Flake	4/4 .	= 1
		Cut Itolicy Dew Plake	4/4	, 5/
" Dar	k 3/4	Gold-Leaf Turkey (capita		
A groot	reliable counter tobacco.	Cigarette Tobacco)		
A 6000			4/6	
	The Planter, Jack's Master, in			
	The Flanter, Jack 8 Master, in	packets rer lb. 3/6		

						OBACCOS.			
Limerick Roll		+1	3/	3/2	3,6	Cake Cavendish		4.	3
Nail Rod Pigtail				3/2	3/4	Sweet Cake Cavendish			3
rigiant	••	••		3,3	3/6	Ladies' Twist	•		4

WATTS' CHALLENGE SMOKING MIXTURE, 4/6.

In 1 oz., 2 oz., and 4 oz. Packets. A single Sample Box or Pound forwarded on receipt of the amount.

# CHOICE

Best Birdseye, in  $\frac{1}{4}$  lb. tins; also  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb. packets. Superfine Birdseye, in 1/4 lb. tins; also 1/4 lb., 1/8 lb., 1/16 lb. " Imperial Birdseye, Foil, 2 oz., 1 oz.

"Yellow Honey from Down South."

This Tobacco is the most highly esteemed

In 4 lb. tins; also Foil, 2 oz., 1 cz.

in the States. "Virgin State," Selected from the In \(\frac{1}{4}\) lb. tins; also Finest Virginia Leaf. In \(\frac{1}{2}\) Foil, 2 oz., 1 oz.

Oriental Returns, \ In \ lb. tins; also A Mild Smoking Tobacco. Foil, 2 oz., 1 oz.

Fine Turkey Returns, Foil, 2 oz., 1 oz.

#### PACKED SHAG.

Superfine Shag	•••	•••	$\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb.
Fine Shag	***	•••	$\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb.
Fine Ragg	•••	•••	1/4 lb., 1/8 lb., 1/16 lb.
Si Good Shag	•••	•••	$\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.
" Old Honest"	•••		$\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.
Good Shag "Old Honest" "Uncle Tom" "Aunt Chloe"	•••		$\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.
है है (" Aunt Chloe"	•••	•••	$\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.

#### E. W. ANSTIE.

MANUFACTURERS.

## DEVIZES. WILTS

ESTABLISHED ONE HUNDRED AND FIFTY YEARS.

TEMPLE GATE,

Petroleum, Benzoline, Gasoline,

OLIVE, COLZA, COD, CASTOR, SEAL, WHALE, & SPERM OILS, TALLOW, PITCH. TAR.

ALL

Soft Soap, Greases, Linseed

PAINTS

TRADE Ball denotes



KINDS.

Meal, and Crushed Linseed.

MIXED FOR

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All Colours in 1, 2, 4, and 7 lbs.

VARNISHES OF ALL SORTS IN TINS OF ALL

(FORREST'S PATENT). No. 3263. For Drawing off and Measuring Oil, Spirits, or any other Liquid, of either Alcoholic or Gaseous nature. This very useful Apparatus is constructed on a new principle, which ensures unparalleled accuracy in the measurement. Besides its accuracy, it is recommendable for cleanliness, economy in time, and material to be measured; for its being free from the danger of explosion, and not liable to get out of repair.



e fluid, one jo he liquid is done in dividual any loss o without cistern. ü of the 1 vessels, and lied with or wi measuring ves supplied and thout any m The This Apparatus will be found particularly useful in the

more and the Apparatus t any difficulty y capacity, up to four any capac pint up e of a half made quantity, from fixed in any pla pe. can The cistern any

FIG.9. HIBSHI

sale of Paraffin and other Oils, Spirits, &c.
PASSED BY LEGAL GOVERNMENT INSPECTOR. Before selecting Measure write for particulars.

Prospectuses, Prices, and any other information will be promptly supplied on application to the Inventor and
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HARLES.

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PETROLEUM OIL, choice brands only sent out. BURNING NAPHTHA at Market Prices. GALVANIZED and TIN GOODS of all descriptions.

PARAFFIN, SPIRIT, and MODERATOR LAMPS. GLOBES and CHIMNEYS for gas or lamps. WOODEN TAPS, with square or round cork.

THE BEST BLACK BEETLE AND OTHER VERMIN ERADICATOR.

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WATERPROOF, AIRTIGHT, & ODOURLESS PACKAGES.

Protected by Royal Letters Patent. Is neat and clean, and convenient for use. Being airtight and odourless, retains its strength unimpaired. It is admirably adapted for Export, and will keep for years in any climate.

In 1-lb., 3-lb., and 1-lb. Packages, packed into 24-lb. Boxes and 50-lh. Cases, each separately, or the three sizes assorted in each Box or Case
Also in Penny Packages, packed in 1-gross Boxes. Packed also into 1-cwt. and 1-cwt. Cases, to meet the requirements of the

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# ARTIFICIAL LIMBS,

WITH 100 ILLUSTRATIVE CASES.

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Mr. Gray's extensive practice in the making of Artificial Limbs has long enabled him to adopt this art as his specialité, and his success is acknowledged to stand unrivalled.

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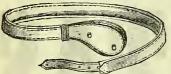
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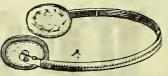
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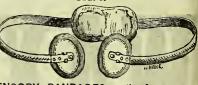
ESTABLISHED A.D. 1833.



FIRST PRIZE (SILVER MEDAL) FOR TRUSSES AWARDED BY THE WORSHIPFUL COMPANY OF CUTLERS OF THE CITY OF LONDON, MAY 1879. FIG. 1.







		-
TRUSSES.		
Circular Trusses, single, as Fig. I, basil and chamois o	r basil and	
moleskin	per doz.	£1 1 (
Circular Trusses, double, basil and chamois or basil an	d moleskin	
	per doz.	1 14
" " with extending backs	22	2 14 (
Salmon & Ody's Expired Patent, single, Fig. 4	,,	1 10
", ", double, Fig. 5	,,	3 0
Moc-Main Lever, single	each	0 8
", ", " aouble	,,	0 13
Coles's Expired Patent, single	** ;;	0 5
,, ,, ,, double	•• ,,	0 10
Scrotal Trusses, basil and chamois or moleskin, single	** "	0 4
", ", ", double	** "	0 7
SUSPENSORY BANDAGES	š.	
No.	•	
1. Cotton Bags and tape under-straps	per doz.	0 8
2. Cotton Oxonian, with drawing-strings	20	0 10
3. Silk Bags and tape under-straps	,,	1 I
4. Silk Oxonian, with drawing-strings	"	0 18
5. " Bags bound with elastic	,,,	1 4 (

No	).	SU	SPENS	ORY B	ANDA	GE	S-co	ntinued	<i>t</i> .			
	Silk	Oxonian,	superior	quality,	bands	of	buff	jean,				
	d	rawing-st	rings , .					per	doz.	£1	4	0
7.	Silk	Bags, to	button on						32	I	1	0
8.		,,	,,	" und	ler-strap	os to	butt	on	"	1	4	0
. ez												
		EL ACT	IO CT	ONUM	0 1/		- ~ ^	00				

#### ASTIC STOCKINGS, KNEE-CAPS, ETC

Manufactured expressly for Ex- port, and warranted to stand a hot climate better than any others in the Market.				Silk			upe Silk		C	otto	n.		upo	
Stockings Knee-caps Calf-pieces Socks Wristbands Knee Stockings Belts, to draw on		pair ,, ,, ,, ,, ,,		s. 9 6 6 5 2 15 15	d. 0 0 8 0 0 0 0 0	0 0 0 0 1 1	8. 13 9 9 7 7 3	d. 6 6 0 6 0 0	£ 0 0 0 0 0 0	s. 5 3 4 3 1 8	d. 3 6 0 3 6 9	£ 0 0 0 0 0 0 0 0	s. 6 5 5 4 2 11 9	d. 6 0 6 0 6 0

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16 ounce 8 inches 16/6 18/6 20/ 22/per dozen. 32 ounce 101 inches 20/ 20 ,, 9 ,, 17/6 20/ 21/ 23/ 42 ,, 11 ,, 22/ A SHEET OF FACSIMILE LABELS SENT ON RECEIPT OF TWO STAMPS. 26/6 26/6

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Mr. W. Bray, Chemist, Glasgow, writes—"They are everything that can be desired, and are greatly admired by all who see them."

Mr. D. D. DEANS, Chemist, Melrose, writes—"Am immensely pleased with these new hand bottles: they are really magnificent: there is no comparison between them and the old shop rounds as regards either price or appearance, and then they will never change, as the labels are literally indestructible."

Mr. Bray Regards Greeker, Glasgow, have much pleasure in testifying to the satisfaction they have had in the use of these bottles, which baw been in their Charing Cross Branch for fully two years. The facility with which they can be kept thoroughly clean without possibly injuring the label can only be appreciated by practical experience."

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\*\*Color Color C

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THE NEW DISCOVERY.



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Vill NOT INJURE the Leather; gives a PERMANENT POLISH of great brilliancy without brushing), which does not rub off or soil the clothing; is Waterproof; and through RAIN, SNOW, and MUD will last a Week.

fud when dry may be brushed off with a stiff brush, or may be washed off, and the polish will remain the same.

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s suitable for Ladies' and Gentlemen's Boots and Shoes of every description; also Belts, Purses, and Travelling Bags, Harness, Military Accourrements, &c.

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Can be Ordered through any Merchant, Shipper, or Wholesale House.

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The Drug Trade supplied from Depot at

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# The A1 COD LIVER OIL

IS REMARKABLE FOR

SPECIAL DELICACY OF FLAVOUR, PURITY.

AND ITS WELL-KNOWN PROPERTY OF

## REMAINING BRIGHT in COLD WEATHER.

Price-9/- per Gallon in Winchester Quarts, or 8/9 per Gallon in 25-Gallon Casks.

BLUE LABELS FOR CORKS of Bottles, also Medical and Retail Circulars supplied.

BROS. & BARCLAY, BIRMINGHAM.

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It writes almost instantly full black.

Does not corrode Steel Pens. Dries rapidly on the Paper.

Flows easily from the Pen.

Blotting-paper may be applied at the

Is cleanly to use, and not liable to blot.

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

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These Preparations are reliable and concentrated forms, adapted for all the purposes for which Pancreatine and Pepsinc are administered. Dose, 1 drachm. (See BRITISH MEDICAL JOHNAL, Dec. 13th, 1879, p. 965.)

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In Consumption and Wasting, will always take precedence of Cod Liver Oil by reason of its introducing the Stable Solid Fats into the system instead of the evanescent finid fats or oils.

No Oily Emphsions of any kind, not even Cod Liver Oil itself, can supply the kind of fat necessary for sound and vigorous human life.

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This is simply the "Finest" Cod Liver Oil artificially digested and emulsified, so that the absorption and assimilation of the Oil is greatly accelerated, and digestion perfected.

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By combining the Pancreatic Jnice with the Oil, the digestion of the latter is easily and rapidly effected, nausea is provented, and the beneficial properties of the Oil are increased.

#### PEPTODYN.

A combination of the whole of the Digestive Secretions—Pepsine, Pancreatine, Diastase, or Ptyalin, &c., forming an invaluable remedy in the treatment of all forms of Dyspepsia, and all diseases arising from imperfect nutrition.

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The Most Perfect Substitute for a Healthy Mother's Milk.

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An index to the advertisements, and the terms for insertion, will be found

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The Pharmaceutical Council admitted a reporter from this urnal to their last meeting, but under conditions which ere incompatible with accurate reporting.

Two attempts have been made during the past month, on e certificate of the Hampshire analyst, Mr. Arthur Angell, convict chemists of adulteration of cream of tartar, in nsequence of the small proportion of tartrate of lime nich is necessarily associated with it. In both cases the osecutions were completely overthrown, and in one a all proportion of the costs was allowed. The other case, pich we report in full, will be found interesting, and in me respects amusing.

Messrs. J. D. Smith & Co., wholesale druggists, Norwich, e the manufacturers of the Norfolk baking powder, in nich alum takes the place of free acid. A baker at Camidge was convicted for selling buns containing alum, ade, as he alleged, with this powder. Proceedings were en against the vendors at Cambridge, who were convicted the magistrates. Messrs. Smith & Co. appealed. The corder of Cambridge beard the case on January 9, and cided that the presence of alum in baking powder was ither an adulteration nor injurious to health.

There are three cases reported in this issue of costs being allowed to defendants in alleged adulteration cases. In the Norfolk Baking Powder case 100l. were allowed, in the Cream of Tartar case at Fareham 3 guineas were granted, and costs were also given by the Salford stipendiary in the Unfermented Wine case reported on page 11.

The cause of the non-miscibility of Gregory's powder has been cleared up by Mr. Gilmour, whose remarks will be found on page 20. Guided by the convergence of many discrepant suggestions, he investigated the influence of the. hydration of the calcined magnesia on the miscibility of the product. He found that where the magnesia had been exposed to the air long enough to have become partially hydrated, or where the other powders contained sufficient moisture to produce the same effect, the Gregory was quite miscible. When the same powder was thoroughly dried it developed aggravated non-miscibility.

Several statements have appeared in the papers lately to the effect that the Government have at last resolved to prevent Civil servants from taking an active part in the management of stores.

A duty of 25 per cent, has been fixed on all patent medicines imported into the colony of Victoria. The debate. on this proposal in the Melbourne House of Representatives. appears on page 12.

The proceedings of the Pharmaceutical Society of New Zealand are recorded on page 15. That Society has now over 100 members, besides associates and apprentices, and intends in the present session of the Colonial Parliament to apply for a Pharmacy Act on the model of the one possessed in Victoria.

Our Liverpool report contains a summary of the arguments by which Mr. John Abraham has justified to hisfellow-chemists a reduction in the selling prices of proprietary medicines which was made last year by his firm. (Messrs, Clay & Abraham).

At Devonport a surgeon seems to have done his best to get a druggist into trouble for counter-prescribing; but thecoroner, who, we presume, had been chosen from the legal' and not from the medical profession, himself defended the conduct of the chemist and the occasional practice of counterprescribing.

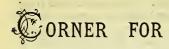
Mr. Mactear, of the St. Rollox Chemical Works, Glasgow, claims to have discovered a process for the crystallisation of carbon, and his claim has been to some extent substantiated by competent authorities. His diamonds, if they are such, are as yet too minute to affect the value of those produced by nature. Mr. Mactear's process is to be detailed to the. Royal Society in the course of a week or two.

Mr. Edison seems to have more nearly approached success. with his electric lamp, by recent experiments, a summary of which we give on page 22.

The Chemists' Ball is fixed for January 21. A list of stewards and other particulars will be found among our advertisements.

A vacancy is caused on the Board of the Irish Pharma-ceutical Society by the death of Mr. William Allen, of: Dublin, the first member of the Society nominated in the-Irish Pharmacy Act.

The names of Mr. Henry Hancock, Dr. Soelberg Wells, Dr. Hermann Freund, Dr. Long, of Liverpool, and Dr. Wm. Budd, of Clifton, appear in the medical obituaries for the month.





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

A MINERAL will again form the subject of the exercise in qualitative analysis. It is to be submitted to a systematic examination, such as will reveal not only the essential constituents of the substance, but also any foreign matter that may be present as impurity. The name of the mineral is to be ascertained, and a detailed account of the analysis given.

Students who wish to compete should send in their names and addresses before the 20th inst. Samples of the

mineral will be forwarded on the 26th.

Students' reports will be received up to October 15.

#### ZINC BLENDE

The subject of our last exercise was zinc sulphide or blende. It contained a considerable quantity of iron, and traces of cadmium, also traces of calcium, magnesium, silica and the sulphuric radical derived from some superficial deposit in the crevices of the specimen that was pulverised.

Zinc blende, the "Black Jack" of the English miners, is

the commonest ore of zinc, and is in many respects a mineral of some interest. Our readers will no doubt remember that shortly after Mendelejeff published his now famous memoir on the periodic law of the chemical elements, M. Bois-baudran announced the discovery of the new metal gallium, possessing properties which the author of the periodic law had predicted. In studying the relationship of the pro-perties of the elements to their atomic weights, Mendelejeff observed that the elements might be arranged in series and groups in such a manner that their physical and chemical properties exhibited a progressive variation closely corresponding to the periodic differences in the atomic weight of the several members of each group or series. In several cases the groups were very perfect, but others were incomplete, and it appeared highly probable that the incompleteness was largely due to our imperfect knowledge of the elements. In order to make the group containing aluminium comparable with the associated groups, it was necessary to assume the existence of an element having the same relationship to aluminium that zinc has to magnesium, and, therefore, having an atomic weight greater than zinc by about 41. Mendelejeff assigned to this assumed element the atomic weight 68, and called it ekaluminium. It was natural to suppose that if the required element existed it would be found associated with zinc, which it was supposed closely to resemble. This expectation was realised by the discovery of gallium in zinc blende from Pierrefitte in the Pyrenees; subsequently gallium was discovered in blende from numerous other localities. Other rare elements, notably cadmium and indium are found in blende, and it is interesting to observe that indium bears the chemical and physical relations to cadmium that gallium does to zinc, and that the two pairs of elements exhibit corresponding analogies in their atomic weights-viz., Cd., 112; In., 113; Zn., 65; Ga., 68.

This analysis does not afford much matter for criticism, as it presented no special difficulties. It is remarkable what varied success attended the dry examination in this case. One student says, after describing a few fruitless attempts to extract some information from the mineral, "I could learn nothing of its composition." On the other hand, some succeeded, with very little difficulty apparently, in finding out that zinc and sulphur were the chief sub-stances with which they had to deal. We strongly recommend our contributors to cultivate a knowledge of the few simple tests that are comprised in what is usually known as the examination in the dry way. The re-agents and apparatus required are of the simplest character, and minute portions of the substance to be examined suffice for the tests. But one thing is essential—experience. The student must acquire the necessary skill in manipulation, and he must have had sufficient practice to be able to interpret results accurately and with confidence. There is no substitute for practice; mere reading will be of little assistance, though it is not to

be despised. It is absolutely essential that the student should see for himself, and thoroughly understand every [reaction with which he has to deal.

#### PRIZES.

The First Prize for the best analysis has been awarded to ROBERT WRIGHT, 13 Burton Crescent, Euston Road, W.C.

The Second Prize has been awarded to R. W. Houff, 74 Market Place, Sheffield.

#### Marks Awarded for Analyses.

A. Wright	(ISC P	rize)			0.0				98
Columbus	(2nd r	rize)		••	1	1			93
Galen	` <b></b>							• • •	90
W. Cyril B	irks		••						90
N. O. H.									85
T. H. Elvi	13		5					•••	83
Oolite								•••	82
Charcoal					- 11		•••		80
Cremocarp									80
N. G. H.				-:-	**	••		••	80
H. W. D.	••	••				••		••	78
Cymro	••		••	••	••	••	••	**	75
Ethyl		••	••	••	••	••	• •	• •	60
Realmalı	••	••	••	• •	••	• •	• •	••	20
Cyprus	••	••	• •	••	••	••	••	• •	10
Xylouite	* *	••	**	••	••	• •	• •	••	
Parvus	• •	• •	••	••	• •	••.	••	••	5
	• •	• •	••	••	• •	••	••	• •	0
J. Pryor	•• '	• •	• •	• •	••	• •	• •	••	0

TO CORRESPONDENTS.

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

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

Any scientific hook which is sold for ahout five shillings may be taken as second prize.

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

Cremocarp.—The method which you followed is quite satisfactory. It would be well to devote a little more attention to the preliminary examination, ignition in closed tube, open tube, on charcoal, with sodium carbonate, &c.

N. G. H.—You were quite right about the minute crystals of quartz in the residue insoluble in acids; you were the only one who observed them. These were derived from some flue sandy matter contained in the crevices of the mass from which the specimen was taken.

Cymro.—The separation of free sulphur on heating the mineral does not indicate that it contained free sulphur any more than the evolution of oxygen on heating potassium chlorate indicates that this salt contains free oxygen. Many sulphides give free sulphur when heated.

Ethyl.—It is strange that you could conclude that it was unaltered by heat; you could not possibly have heated it even in vacuo without effecting some alteration. You omitted to name the substance.

Realmah.—The colour of the ammonium sulphide precipitate was due to iron; you did not remove all this metal hy the addition of ammonia, as some of it was present in the ferrous state, and therefore produced a hydrate soluble in ammonia.

Copprus.—It is true that sulphuric acid acting on the mineral produced a semifluid mass, this was due to the production of more sulphate of zinc than the liquid present could dissolve, but it in no way resembled the gelatinous mass that is formed by the separation of silica.

Xylonite.—The treatment to which you submitted the precipitate in which the zinc occurred would not enable you to detect this metal. When the precipitate was dissolved in hydrochloric acid, oxidised, and ammonia added, Al, Cr, Fc, if present would be precipitated, and if to the filtrats which may contain Mn, Zn, Co, Ni, you add HCL+KHO in excess, a precipitate will be formed if either cobalt or nickel are present, their hydrates being insoluble in the fixed alkalies, but Zn and Mn remain in solution, and it was in this condition that you left the zinc; the addition of ammonium sulphide would have revealed its presence by the formation of a white precipitate.

Parvus.—The substance did not in the least resemble iron pyrites, a mineral so common that you surely ought to be familiar with it. A complete systematic analysis would not have occupied much more time, and you would have learned what metals were absent, justed of merely finding that certain elements were present, and knowing nothing more about the substance.

J. Pryor.—The conclusion that you arrived at is not supported by the evidence you obtained in the examination of the substance. On adding ammonia to the solution, to which ammonium chloride had previously been added, you must have observed the production of a copious precipitate which dissolved when the ammonia was in excess; this could not be due to iron. You will find it an advantage to make some analyses of substances containing silica, your views of the reactions of silica will then he considerably modified.

## The Pharmaceutical Council.

WEDNESDAY, JANUARY 7, 1880.

MR. GEORGE WEBB SANDFORD, PRESIDENT.

MR. GEORGE FREDERICK SCHACHT, VICE-PRESIDENT.

Present — Messrs. Atkins, Bottle, Churchill, Gostling, Greenish, Hampson, Hills, Robbins, Savage, Shaw, Squire, Slipper, Symes, and Williams.

The minutes of the previous meeting were read and con-

firmed. The Secretary stated, in reply to a question by Mr. Williams, arising out of the minutes, that the total amount of the Society's investments on the General Fund was about 22,000%.

#### REPORTING THE COUNCIL PROCEEDINGS.

The SECRETARY read the report of the Special Committee appointed to make arrangements for the admission of reporters. The Committee recommended that a second table be placed in the Council-room for the necessary aecommodation of press reporters; and that press reporters should lcave the room when the Council resolves itself into Committee.

Mr. HAMPSON moved and Mr. Gostling seconded the adoption of the report, which was soon afterwards passed

unanimously.

The PRESIDENT said he had received one application for admission.

Mr. Shaw asked if the discussion on this motion should

take place in committee.

The PRESIDENT thought it would be better. Mr. Hampson saw no necessity for such a course.

Mr. SAVAGE moved that the consideration of the application received and the details should be considered in committec.

Mr. HAMPSON objected, and on the motion being put it

Other questions of detail had meanwhile cropped up, and Mr. Schacht and Mr. Squire both stated they had not understood the purport of the last vote.

Mr. BOTTLE moved-

That only one reporter he admitted from any journal at the same

He wished to do so before any application was read, in order that the motion might not have any personal application.

Mr. Shaw seconded the motion.

Mr. Hampson asked if notice ought not to have been given of this motion. It opened the whole question de

novo in his opinion.

The PRESIDENT did not think it was necessary to give notice of such a motion, which only referred to the detail of arrangements to be made, and he thought the sooner the arrangements were made the better.

The motion was carried nem. con.

Mr. CHURCHILL said the Conneil had not yet settled the question of the reports of the committees, which was very

The PRESIDENT said he had intended to propose that, inasmuch as there were sometimes private matters included in the reports of the committees, the Council should, if necessary, go into committee to receive such reports, when, under the regulation already passed, the press reporters would be required to leave the room.

Mr. Gostling thought such a resolution a very proper

one, and he would move it.

Mr. CHURCHILL seconded the motion.

The VICE-PRESIDENT thought the Council might have a broader regulation. The proceedings of committees were supposed to be private, and never published, but simply the fact that the reports were agreed to. If that were the case, and the constituency of the Council were in no way deemed entitled to know the contents of the reports of the committees, would it not be well to make a general regulation that reporters be not admitted until the reception of the reports was concluded? Why should they come into the room simply to be asked to leave it whenever a report was

being read?

Mr. Hampson said if this motion were passed it would have the effect of shutting out all discussion of committee work. There had been many interesting and important discussions on reports of committees, and to shut them out would be to curtail the report even in the Society's own Journal.

Mr. Symes thought the motion was scarcely in accordance with the recommendation of the Special Committee. The suggestion made to the Council was, he understood, that only some special portion of a report should be heard in committee. But, according to the motion, if there were two lines in a report containing matter of a private nature the whole report would have to be taken in committee. The-President himself had suggested that a red mark should be placed against the report of any matter which the Committee thought should be kept private.

The President said the paper from which he had just been reading was the same that he had laid before the Committee. He could not join with the Vice-President in thinking that the reporters should be excluded until all the reports had been disposed of; if so they would only come in sometimes when the diplomas were being stamped, which always formed the last item on the agenda. He was quite willing that the motion should be put in any form which

would make it workable.

Mr. ROBBINS said it appeared to him there was only one committee whose proceedings were of very great interest to the members outside, and that was the General Purposes-Committee. But the members of Council all knew that there were a great many questions which came before that Committee which could not be published. The most important part of the Society's work was done in that Committee. What was done by the other committees was of comparatively little importance to readers outside.

MR. GOSTLING said he would, at the President's suggestion,

put the motion in the following form:

That inasmuch as matters of a private nature are sometimes recorded in the proceedings of the various committees, it will be well before such minutes are read, for the Council, if necessary, to resolve itself into committee for the purpose of receiving and considering the report of such private matters.

Mr. Churchill seconded the motion.

Mr. WILLIAMS thought the reports of the committees. should always be read in committee, and that then it should be an open question whether the discussion should take place in committee or not. The report might contain. nothing of a private nature, and might contain matter of great public interest which ought to be discussed openly and reported. -That could be decided in two minutes, after the report had been read.

Mr. ATKINS thought that all differences, which were now springing up like mushrooms, might have been avoided if the Council had clearly made up its mind on the point of whether the reporters should be called upon to leave the room or not. The report of the Committee, including that regulation, had been adopted without any discussion, and he certainly was not aware that the subject was concluded, or he should have offered some remarks upon it. He felt more and more convinced that the reporters might have been allowed to remain subject to the same honourable regulations as the Council's own reporter. He did not wish to be a prophet of evil after having supported the change, but he thought it would be found that asking the reporters to be continually trotting in and out of the room would be a great nuisance.

The PRESIDENT said he had no fear of the reporters, but the Council ought to retain in its own hands the means of keeping them in order.

Mr. WILLIAMS then moved as an amendment-

That the Council shall resolve itself into committee to receive the reports of all committees, and discussions thereon shall be taken in committee or open Council as decided by the Council at the

Mr. SQUIRE seconded the amendment.

Mr. Hampson decidedly objected to the amendment. The report would be perfectly unintelligible if the reporter was

unable to start with the text. It was the custom in all public hodies for the reports to be read and extracts from them to be published. It was only an occasional matter which the Council wished to keep private. He thought it very undesirable that cither of these motions should pass. These important changes should be introduced in a proper way hy notice of motion being given, so that memhers of Council should have an opportunity of thinking the subject over. He should much prefer to have the reporters present on all occasions, and to trust to the honour of those gentlemen. He regretted now that the Council had agreed to the exclusion of reporters when in committee.

Mr. SQUIRE said the question whether reporters should he present in the room or not had been already decided, and it

did not bear on this point.

Mr. SAVAGE said it did very largely, hecause if he understood the proposition aright, under any circumstances the report of a committee must be read in committee, and a resolution was already passed that reporters must leave the room when the Council was in committee, so that during the reading of the report of every committee, however insignificant, and however desirable it might he for them to be present, they must leave the room.

The PRESIDENT said that depended on which proposition

was adopted.

Mr. BOTTLE drew attention to one of the bye-laws, which said that every committee should present its report to the Council. Now it was proposed that the report should be made to a committee.

Mr. SYMES wished to point out that this proposition, though it did not quite undo everything the Council did last month, would undo half, or two thirds of it, for the reports of the committees occupied at least half of the time. Mr. Williams's amendment would prevent the reporters coming in until the Council was about to break up.

The amendment was then put and lost, and the original

motion was carried by a considerable majority.

Mr. Shaw said of course the responsibility would devolve upon some members of the respective committees, of moving that the Council should resolve itself into committee.

Mr. ATKINS said he should move on another day that the

reporters be not asked to leave the room.

Mr. HILLS said he should move, if it were not too late, that the press reporters should be admitted on the same con-

ditions as the official reporter.

The PRESIDENT said the Council had already decided the contrary. He then read an application he had received from the Editor of THE CHEMIST AND DRUGGIST, saying he should like to send a reporter to all meetings and to be allowed to attend himself occasionally. He asked for the latter favour purely for the sake of insuring accurate information, and he should wish to be regarded as a second reporter from his journal. He had further requested that the agenda paper and other documents furnished to the memhers of Council might be sent to him. Mr. Sandford had replied privately, acknowledging the receipt of the letter, and saying that as far as the first part of it was concerned he had not the slightest doubt that a reporter would be admitted, but with regard to the other points he could only submit them to the Council. In the meantime he should he glad to know what was meant by the "other documents." In reply to that the Editor said he had no special documents in his own mind, he only thought that papers respecting the business of the Society were sometimes circulated, and, if so, he should of course be glad to have them, though not necessarily for publication. The Editor of THE CHEMIST AND DRUGGIST had subsequently called on him, when he was informed that there were no documents handed to the Council hut the agenda paper, except that occasionally reports of committees were circulated which were entirely private until they were in the hands of the Council collectively. The first question, of course, was the admission of a reporter from THE CHEMIST AND DRUGGIST.

Mr. HAMPSON moved and Mr. ATKINS seconded-

That a reporter from THE CHEMIST AND DAUGGIST be admitted to the ordinary monthly meetings of the Council of this Society.

Mr. WILLIAMS thought before this motion was passed the Council had better discuss the second question, whether the Editor should be allowed to he present.

The PRESIDENT remarked that the resolution already passed on the motion of Mr. Bottle disposed of that.

The VICE-PRESIDENT said that the letter having been received he considered a certain answer should be sent to it, which should contain the conditions on which the reporter should be admitted. He should also like it to contain a paragraph, requesting that in the event of any change of the individual representing the journal he should bring that letter as his warranty for entering the Council-room.

The President said no doubt an answer should be sent; but he helieved there was a gentleman waiting to

come in.

Mr. SYMES thought it would be sufficient if the Secretary, in writing to the Editor, called his attention in a foot-note to the conditions attached to the admission of the

The motion was then put and carried unanimously.

The PRESIDENT said the application of the Editor of THE CHEMIST AND DRUGGIST to be himself occasionally present was already disposed of; then came the question of forwarding him the agenda and other documents.

Mr. Bottle thought there was no objection to sending

him the agenda.

The VICE-PRESIDENT asked if a copy was supplied to the Editor of the Pharmaceutical Journal.

The SECRETARY said no.

Mr. Symes thought that was no objection; if he asked for one he would no doubt receive it.

Mr. WILLIAMS said the agenda was a private document, and if it were to be sent to any strangers there should be a resolution to that effect.

Mr. SHAW then moved-

That the agenda paper of the ordinary Council meetings be sent to the Editor of THE CHEMIST AND DRUGGIST, marked "private."

This was seconded by Mr. SYMES, and carried unanimously.

Twelve diplomas were then granted to as many registered pharmaceutical chemists.

#### ELECTIONS.

#### Members.

A list of names of pharmaceutical chemists who had passed their Major examinations was submitted, and all were elected members. The Council then resolved itself into a committee to discuss the admission or otherwise to the Society of a lady who had made application.

On the Council resuming,

Mr. HAMPSON expressed much pleasure that the Society had determined to take within its limits a lady who had aspired to that position, and he was also glad that a question which had caused so much excitement was settled, and that there was now no distinction made hetween the sexes.

A number of chemists and druggists who were in business for themselves prior to August 1, 1868, and had paid their

current subscriptions, were elected members.

#### ASSOCIATES IN BUSINESS.

Seven gentlemen who had passed their Minor, and four who had succeeded in their Modified examinations, were who had sacceeded in their Modified examinations, were elected "Associates in Business." Twenty other names were submitted as having cleared the Minor, and two the Modified, examinations, and were elected "Associates." Seventy-two gentlemen, having passed the Preliminary examination, were elected "Apprentices or Students."

Mr. Shaw was pleased to notice so long a list of apprentices, especially after a recent assertion that there

were no such candidates forthcoming.

#### RESTORATIONS TO THE REGISTER.

Mr. George Barlow, Pocklington, was restored to the Register.

#### ADDITIONS TO THE REGISTER.

Mr. John Hardcastle (who recently appealed against the Registrar's decision), Mr. L. William Hughes, and Mr. Henry Cutting having formally declared themselves to have been in husiness before the passing of the Pharmacy Act (1868), and their declarations having been supported by medical practitioners, were added to the Register.

#### REPORTS OF COMMITTEES .- FINANCE.

The Council resolved itself into committee to consider the report of the Finance Committee, the solicitor's bill being the special cause of secrecy.

The report of the Finance Committee was received and

adopted.

#### House

Committee's report was considered. It was therein mentioned that the house porter had sufficiently recovered from his indisposition to resume his duties, and there was a fair prospect of his complete restoration to health. At present he was sleeping out.

The report was received and adopted.

#### BENEVOLENT FUND.

Recommendations being made for the Council to make certain grants, the sum of 40*l*. was voted to needy cases.

Mr. SHAW asked the Secretary if he could account for the diminution which was apparent in the number of subscribers. He also desired information whether canvassing-cards were conducive to success at elections. He observed with pleasure that Mr. Hollinworth—a gentleman to whom some objections had been taken on a former occasion on account of his being still in business—had been elected.

Mr. WILLIAMS said the fact of Mr. Hollinworth having been elected was a proof that cards were immaterial, that gentleman not having sent any out. Indeed, it was consequent on that fact that Mr. Williams had recorded his votes

in Mr. Hollinworth's favour.

Mr. HAMPSON preferred to judge of the matter after a

more lengthened experience.

Mr. Robbins observed that at the last election many papers were not duly signed by the voters. Another point was that some voters voted for as many candidates as possible. This plan left each candidate in the same relative position as before the reception of the vote. The voter might, therefore, have saved his votes altogether. He considered the plan not only useless but mischievous, and added much to the labours of the scrutineers. On the last occasion these gentlemen commenced their work at six o'clock, and it was nine o'clock before they finished.

Mr. Hampson pointed out that although a candidate was unsuccessful on one occasion, votes given him were still, by enmulation, to his advantage. Every vote given had its

value.

The Secretary explained that the voting papers were in excess of former years. The discrepancy arose in this way: to diminish the cost of postage a classification of names had been made in the office, and now one paper was sent to each person entitled to vote, instead of sending indiscriminately to members and subscribers. In many cases, therefore, one

paper now did the work of two previously.

Mr. ATKINS saw no difficulty in determining why there were fewer subscribers. It was clear that the depression which had prevailed in trade generally had affected the Society. The same cause would, he feared, affect the Society in another manner, viz., by increasing the number of candidates for annuities. In regard to canvassing he had received no cards whatever. His votes were given quite unfettered. However, the case for which he voted—a most touching one—was a failure this year. He believed that there had been no professional touting.

The report was agreed to.

On the motion of Mr. Schacht, seconded by Mr. Bottle, the sum of 10 guineas was voted to a gentleman for his services in regard to the *Pharmaceutical Journal*.

#### LIBRARY, MUSEUM, AND LABORATORY.

The LIBRARIAN reported that the attendance during the month had been 400 in the day, and 200 in the evening.

Various routine business was then proceeded with, having connection with the museum and library.

#### DANIEL HANBURY MEMORIAL.

On the motion of Mr. WILLIAMS, seconded by Mr. SQUIRE. it was resolved that Mr. Daniel Bell Hanbury be presented with a copy of the medal struck in memory of that gentleman's son, Mr. Daniel Hanbury.

#### GENERAL PURPOSES.

The Council then went into committee upon the reportfrom the General Purposes Committee.

The Council having resumed,

#### CREAM OF TARTAR.

The PRESIDENT moved that the report and recommendations of the General Purposes Committee be received and adopted. He said it would have been seen from the report he had authorised the solicitor of the Society to attend at the Fareham Petty Sessions on the prosecution of Mr. Smith for the sale of cream of tartar said to be adulterated. He did that on his own responsibility, and he thought it right to report to the Committee and to the Council why he had done so, and to ask their approval. Certain words had been introduced into the Sale of Food and Drugs Act, at the instigation of the Society, namely, "Where the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation," it should not be deemed an adulteration. The cream of tartar in this case was simply. contaminated with the tartrate of lime which was inherent in its preparation, because, according to the Pharmacopæia, bitartrate of potash was to be made from argol, and argol' contained tartrate of lime; therefore he thought that any prosecution of a chemist for selling cream of tartar which contained no more tartrate of lime than 6 per cent. was a vexatious prosecution, and a proceeding against which the Council ought to fight. For that reason he had authorised the solicitor to attend, as he had previously authorised him to do in the Chertsey case. One great advantage resulted from the solicitor's presence, namely, that at his instance the magistrates granted to the defendant his costs, limiting them, however, to three guineas. It was a small sum, but a principle was involved, because it showed that the chemist left the Court in a much better position, and that it was considered by the magistrates to be a vexa-tious prosecution. Arising out of this cream of tartar ease, a suggestion had been made that the Council should endeavour to get some referee appointed, beyond the county or district analyst, before whom the adulteration of drugs should be considered before any prosecution was authorised, and it was not altogether inopportune at this moment, because there was now a public prosecutor appointed, who commenced his work at the beginning of the year, and if the Council could possibly make any representation to the Local Government Board which would prevent these yexatious prosecutions, it would be very well to do so. At the same time, he must say that he felt the Society stood on very delicate ground in this matter, because its members should be the last persons to encourage anything like a sophistication of drugs. That could not be too strongly put forward. Anything like real adulteration would at once be discountenanced by that Society, and he did not wish it to be understood that it was its business to defend every one prosecuted for adulteration, but rather to establish a general principle that there were one or two articles, such as cream' of tartar, sweet spirits of nitre, and scammony, to which the special provision he had just quoted would apply. In such cases the Society ought to come forward, but not in others, and he should be as careful as anyone to prevent the Society coming forward to hinder a prosecution for real adulterati n.

Mr. Hampson thought the President had not in any way overstepped the limits of the discretion reposed in him. No one at that board had any desire to countenance adulteration in any possible form, but the Society, besides having important public functions to carry out, was a society of members of the trade, and by its charter was distinctly empowered to protect those who carried on the business of chemists and druggists. Of course the Society could not defend every case that occurred, but it was desirable to take up any typical case, such as would give a warning to analysts, who probably did not always understand their profession, or public bodies, when they undertook such vexatious prosecutions as this.

The VICE-PRESIDENT, while he heartily approved of the course taken by the President, was glad that it had been made clear that the act was an exceptional one, and one that, if followed at all, must be followed with the greatest caution in the future. He knew it was according to a reso-

lution passed some time ago that private prosecutions might be defended if, after careful consideration, the Council thought it desirable. That resolution was passed in opposition to his judgment, but it existed, and therefore must be acted upon. But he thought a better course than mere defence would he that which the President had hinted at: that the Council should endeavour to establish what might be a standard condition of purity which the law should sanction, or say that all cases should he referred to some such authority as that Society before an analyst was allowed to prosecute at all. Either of those courses would be much more worthy of the attention of the Council than the defence of individual cases as they arose, which must always, to the outside public, appear more or less-no doubt erroneouslyas if the Society were defending an impurity, not necessarily an adulteration, but an impurity-which was an awkward position, and one which he should not like to see become the general view of the matter. With regard to this particular case, he did feel that defence of a second case was a little unnecessary. The Society's legal officer had been sent to attend one case, and had got a verdict which was published before the world, and he thought the Council might have rested content with that trial, and referred every other defendant who appealed to it to the case the Socity had assisted in making public. Everything had been made clear about the eream of tartar, and he did not think the work needed to he done all over again. Certainly he should not he in favour of defending another case next week if it occurred, however much he might approve of the President's action in the past.

Mr. Savage said that the observations of the Vice-President made it necessary that something more should he said. There was a very clear expression in Section 6 of the Sale of Food and Drugs Act, namely, "where the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation"; that was the precise case hefore them, and he took it if another case were to arise of a similar character the Council would be perfectly justified in taking the same course again. There he differed from the Vice-President; because whatever might have taken place in a case already decided, it must he clearly understood that the evidence adduced there went for nothing in another case; it was no evidence in a court of justice unless the facts were proved, and to do that you must have the solicitor there, and also the evidence previously given. It was necessary for the Society to justify the confidence placed in it, and come forward and support every case of this kind where it was found that injustice was being done

to an individual.

Mr. ATKINS expressed his gratification that the President had done what he had, and he was very thankful the law officer had been instructed to move in the matter. He maintained that the accused having come out of court in the way he had, after the support he had received from the Council, was in a much hetter position than if he had simply defended the case at his own charge. It gave him a status which he could not otherwise have secured. Therefore he differed from the Vice-President on the general principle. The Pharmaceutical Society was formed, amongst other things, for the protection of those who carried on the business of chemists and druggists, and although it might not he desirable to repeat frequent defences of cream of tartar cases, still, when a typical case occurred, it was not only a privilege but a duty to step forward and defeud it. Many men could not efficiently defend themselves in such cases; they lost their nerve when prosecuted, and the Society could give validity to a defence which no individual man could. He knew that great satisfaction had been felt that the Society had acted in this matter, and he hoped the same course would be adopted in future.

Mr. Robbins quite sympathised with Mr. Schacht in his dislike to defending cases of adulteration, but he contended that this was not such a case. The pure hitartrate of potash was not cream of tartar, but this was a very difficult thing for magistrates to decide, and the Council ought to come to some decision what amount of tartrate of lime in hitartrate of potash might he considered pure cream of tartar. If the Council could not define that point, how could the magistrates, who knew nothing whatever about the matter?

Mr. WILLIAMS wished to remind Mr. Robbins that to fix a standard for a natural product was impossible. Analysts

had tried to do so with regard to milk, but had not succeeded. So it would he found with cream of tartar made in various countries, and according as it was treated with what was called the plastering process or not, so there would he a variation in the amount of tartrate of lime. It was understood that the grape-juice itself did contain tartrate of lime, but to what extent had never heen established, and it would probably differ with the soil in which the grape grew. Some authorities went as high as 16 or even 20 per cent. of lime in perfectly natural and unadulterated cream of tartar, and therefore it would be quite impossible to fix a standard. He should like to make one more remark with regard to the position of the President. It was not fair that he should be appealed to, and that he should have, without any advice, to take serious action in cases which did not give him time to summon the General Purposes Committee. He had hefore suggested that it would be a good thing for the Council to appoint a small suh-committee of some kind to he consulted by the President on any matter of importance which arose suddenly and required prompt action. The next case might not he of so simple a character, when the advice of a small committee would he hoth welcome to the President and to the general interest of the Society, and he should he inclined to give a notice of motion to carry out the suggestion.

Mr. Shaw said he understood the adoption of the report had been moved, and there was no amendment; and therefore he thought this discussion was rather irregular. The President had acted very properly in this case, and he hoped the result obtained for the first time of getting the defendant his costs would have the effect of putting an end to

these vexatious proceedings.

The PRESIDENT said he was perfectly satisfied with the approval he had received from the Council, and hoped no more time would he spent in discussing the subject.

The motion for the adoption of the report was then put and carried unanimously.

#### WEIGHTS AND MEASURES.

The PRESIDENT said he had been informed the other day, by a maker of graduated measures, that he had applied to the City Inspector to get his measures marked, and was told that no measure could be marked under the Act except those which contained a given measure as "level full." He (the President) felt that was altogether a mistake, and went to see Mr. Chaney about it. Mr. Chaney laughed at the idea, and said, "You will see our own standards are graduated up to a certain mark, not to the brim." The 46th section of the Act clearly provided for the making of graduated measures, because it spoke of measures partly composed of glass and partly of metal. Mr. Chaney told him that a great deal was in the hands of the inspectors. The Central Board would ultimately give out the standards to he used hy all iuspectors, but had not yet done so, and therefore the inspectors were not in a position to verify the measures. Still each inspector in his own district must administer the law to some extent according to his own judgment. Mr. Chaney also gave him a report by the Board of Trade of its proceedings under the Weights and Measures Act, in which it was stated that every information would be given hy the Central Board to the local authorities, and the latter were invited to communicate personally with the officer in charge of the standards, or, if necessary, with the Assistant Secretary of the Central Board. He suggested to Mr. Chaney that the Council might possibly send a memorial to the Board of Trade to endeavour to get some definite instructions sent to all the district inspectors, so as to bring them iuto harmony with one another. It had already been suggested that there should be one uniform mark, and that separate districts should have a little distinctive mark in addition. The President then read the draft of a memorial which he thought it would be advisable to send to the Board of Trade or to Mr. Farrer.

Mr. SYMES thought the Society, as a body, had wasted a deal of valuable time over this question, for it was not yet at all ripe. It had been taking cognisance of over-officiousness of local inspectors and giving them an importance they did not merit. He himself thought it would he hetter to let the matter ripen, for it would be probably years before the Act was carried into force in some localities, and in others perhaps it would never be enforced at all. He thought

it would be much better, therefore, to wait until the matter

was more ripe before taking further action.

Mr. HAMPSON said members of the trade were very anxious for information on this matter. He had been in correspondence with several persons who wanted to know how to get their measures stamped, and they were in a state of considerable trepidation, fearing they might be pounced upon

by the inspector and prosecuted.

Mr. Williams differed somewhat from Mr. Symes. The time occupied on this question was not wasted. The apothecaries' weights and measures had not been legalised, and much annoyance would accrue to members of the trade by their measures, &c., not being stamped properly. Local authorities required instruction, and evidence had been given that the Central Board were in a position to give this instruction. He would propose, therefore, that the Council send the memorial, and also that a deputation should wait on Mr. Farrer, if necessary, to settle such questions as might arise. It was most desirable to prevent vexatious prosecutions.

Mr. SAVAGE remarked that the Brighton Town Council had stood aloof from the Act for some time, but had now

ordered a set of measures.

Mr. GOSTLING agreed that the memorial should be sent.
Mr. SYMES did not oppose the memorial, but thought it
was merely fanning the excitement.

It was then agreed, upon the motion of Mr. Greenish, seconded by Mr. Williams,

That a memorial be presented to the Board of Trade urging the necessity of uniform practice in verifying and marking measures in the various districts throughout the country.

#### REPORTS OF EXAMINERS.

The Council then went into Committee on various questions relating to the report of examiners. The report showed that in London, at the December examinations, of 19 Major candidates, 12 had passed; of 84 Minor candidates, 38 had passed; of 4 candidates for the Modified examination 2 had passed. The Edinburgh report stated that 1 Major candidate had presented himself (failed), 15 Minors (11 passed), and 2 Modified (failed).

#### CHEMICAL SOCIETY.

Thursday, December 18, 1879.

MR. WARREN DE LA RUE, President, in the chair.

The following papers were read.

"On the Specific Volume of Water of Crystallisation," by T. E. Thorpe and J. J. Watts. Some years ago Playfair and Joule pointed out that the volumes of certain highly hydrated salts, for example, sodium carbonate with 10 molecules of water, are equal to that of the water, considered as ice, which they respectively contain. This law does not hold good for salts less highly hydrated. The authors of the present paper have determined the precise relations between the specific volumes of various sulphates of copper, magnesium, zinc, nickel, cobalt, iron, and manganese, and their respective degrees of hydration. They conclude that in the case at least of the so-called magnesian sulphates the volume occupied by the several molecules of water varies with the degree of hydration. The first molecule occupies less bulk than any other, its mean relative value is 10.7, the value of the 2nd molecule being 13.3, of the 3rd, 14.5; the 4th, 15.4; the 5th, 15.6; the 6th, 15.7; the 7th, 16.2. These results accord with the fact that the different molecules of water in a hydrated salt are held with various degrees of tenacity. The authors point out the importance of estimating the amounts of heat resulting from the combination of successive molecules of water.

"Note on the Formation of Ozone during the Slow Oxilation of Phosphorus," by H. McLeod. The active substance formed during the slow oxidation of phosphorus is probably either ozone or peroxide of hydrogen. Air in which phosphorus is slowly oxidising was drawn through a U tube 14 inches long (tilled with fragments of glass containing in succession sodic carbonate, a mixture of potassic bichronate and sulphuric acid, and potassic permanganate), the U tube was at the temperature of the air, or at 100° C. In

both cases, the gas which passed through rendered blue a solution of potassic iodide and starch; hydroxyl under these circumstances would be completely decomposed. In another series of experiments the gas was passed through a narrow U tube heated to 150° to 200° C, but no water was formed. It is extremely improbable that ozone and hydroxyl are simultaneously formed, as these substances decompose each other. The author, therefore, concludes that the gas obtained during the slow oxidation of phosphorus possesses the properties of ozone, and not those of hydroxyl, the only known peroxide of hydrogen.

"On the Analysis of Organic Bodies containing Nitrogen," by W. H. Perkin. The author proposes to substitute for the freshly reduced metallic copper, which has several disadvantages (such as being hygroscopic, occluding hydrogen, &c.), roughly powdered or granulated potassic chromate. About 4 to 7 inches of this substance are placed in the front of the combustion-tube, and maintained at a low red heat. All nitrous fumes are completely absorbed, whilst no effect is produced on the carbonic acid determination. The salt can be readily dried, and it also absorbs sulphurous

acid completely.

## Metropolitan Reports.

#### SOUTH LONDON SCHOOL OF PHARMACY.

The annual dinner, which was the seventh of the series, took place on Friday, December 19, at the Horns, Kennington. Dr. Muter, as usual, occupied the chair, being supported by Mr. William Baxter as vice-chairman. A fair number of old and new students were present, and several members of the medical profession, amongst whom were Dr. A. Farr and Dr. Soper, not forgetting Dr. Julius Pollock, who distributed the medals and certificates to the successful competitors in the course of the evening. Amongst the other guests we must not forget to notice the Rev. S. Bache Harris, Vicar of St. James's, Kennington; and Mr. A. W. Postans, well known in connection with pharmaceutical chemistry.

When the actual dinner was ended and the songs began the students gave their own entertainment, which consisted in various vocal efforts and two operatic sketches, the first being a selection from "Litchen and Fritchen," and the second, "Trial by Jury," which was acted with great spirit. Dr. Pollock, in awarding the prizes, said a few graceful words to each recipient, and acquitted himself of his task in

the happiest manner.

The following gained distinction:

Senior Chemistry.—Medal, Mr. Eaton. Certificate, Mr. Harburn.
Junior Chemistry.—Medal, Mr. Banks. Certificate, Mr. Littlefield.
Botany.—Medal, Mr. Parkes. Certificates, Messrs. Banks and Grover.
Materia Medica.—Medal, Mr. Littlefield. Certificate, Mr. Slicer.
Pharmacy.—Medal, Mr. Webb. Certificates, Messrs. Fidler and Beech.

Dr. Muter in rising to propose the toast of the evening, "Success to the School," was very warmly received. He said that it was about 12 years ago when the first student entered his then by no means dazzling halls—since that date many had come under his instruction, and many had comfortably settled down as honest and honoured workers in the great bee-hive of life. He congratulated the students on the great interest their career had awakened. He was generally expected to say something critical about the official examinations, but conducted as they were now by thoroughly competent men, free from the slightest breath of partiality, they were beyond criticism, and only those who really came in contact with the facts knew how jealously the portals to the respective qualification of "chemist and druggist" or "pharmaceutical chemist" were guarded by the heads of all the departments of the Pharmaceutical Society. The public ought to fully recognise the entire difference between the highly-educated man to whom now-a-days they trusted their lives and the mere seller of drugs they were obliged to deal with 30 years ago.

In concluding his speech, Dr. Muter drew attention to the

paramount importance of striving after the highest standard of qualification which was open to the pharmacist. The same subject had been strongly brought before the notice of the students elsewhere, and we feel pleasure in reproducing the Doctor's observations. "There is, he said, one point which I must take this opportunity to mention. It pains me, in common with all interested in raising the status of pharmacists, to see how few men comparatively aspire to the higher degree of "Pharmaceutical Chemist"—the current idea among students being that the public care nothing for the degree a man holds so long as he is licensed. Setting aside, gentlemen, the higher motives which should actuate the true student, and taking only a mere commercial view of the subject, this idea is, I must warn you, fast becoming exploded. The more educated part of the public are rapidly learning to appreciate the difference, and in comparatively few years it will come to be a common remark, I wonder at your trusting your prescription to So-and-so, who is only a chemist and druggist, when you can go to Mr. Such-aone, who is a full pharmaceutical chemist.' Even on this low ground, therefore, you should put your shoulders to the wheel, and get your major qualification before you became too old, and find that you have cause to reproach yourselves with neglecting it. Gentlemen, as Mr. Ince said in his address at the opening of the session, a school must eventually be judged by the eminence of its students in future life. We cannot hope to train a Gladstone or a Tennyson, but we can hope to gain the utmost prizes of our own sphere of life. Strive, therefore, to advance continually in knowledge until old 'South Londons' arc found both on the Council and on the Board of Examiners, as men honoured in their generation, and with that grand goal in view, let us once more pledge success to the South London School of Pharmacy."

Sydney Smith used to say that all things came to an end except Upper Wimpole Street: with this must be included the annual dinner at South Kennington. When it really terminated we have no means of determining. The visitor who may reside in a suburban district, and who has missed his last train or omnibus, may be forgiven for considering the horns of a dilemma, as a synonym for the recurrent

dilemma of the Horns.

FIRE.—At half-past six on Saturday night, January 10, a fire was caused at the wholesale drug store of Messrs. Herring & Co., 40 Aldersgate Street, City, by spirits coming in contact with flame, and the first floor of the laboratory and store was burnt out and roof off, the lower part being also damaged.

MORPHIA HYDROCHLORATE SOLD IN MISTAKE FOR GREY POWDER.—On January 1 a messenger was sent for an aperient powder to the shop at 50 and 53 St. Lconard's Road, Bromley, E., kept nominally by Richard Kennedy, M.D., but apparently by Ayres Moorc, L.K.Q C.P. Irel. The assistant, Mr. Henbeck, was absent, and the shop was in charge of a boy of 14, named Fr. Alb. Hughes, who had been repeatedly enjoined not to supply medicines without directions from his superiors. He had continually disobeyed this injunction, and on the day in question, according to his own story (which was contradicted), when asked for a powder, he took down a bottle from the shelf, which he believed to be the right medicine. He consulted the assistant's wife, who put the powder in a paper, and he gave it to the girl and charged 2d. for it. On the assistant's return it was found that about six grains of morphia hydrochlorate had been given in place of grey powder. The address of the purchaser was not known, but information was given at the police station, and the boy was ent from house to house along several streets to try and discover the buyer. The powder had been duly administered to a little girl named L. C. Holt, agcd five years, who was found next morning dead in her cot. At the inquest before Mr. Collier on the 3rd inst., the jury returned a verdict of "Death by misadventure." The Coroner then called the boy forward and cautioned him as to greater care in future, and hoped it would be a lesson to both Dr. Moore and his assistant as to how they left their shop to the mercy of irresponsible dispensers. The newspaper reports state of irresponsible dispensers. The newspaper reports state that the morphia had been sold by a *chemist* in mistake for grey powder. Had this really been the case the chemist would hardly have escaped so easily.

#### LAMBETH.

ALLEGED FORGERY BY A CHEMIST .- Stephen John Jelley, chemist, was committed for trial at the Lambet Police Court on December 29, charged with being concerned with another in fraudulently obtaining from Mrs Mary Anne Ryde 13l. by means of a false cheque on the Union Bank of London, Anerley branch. It appeared tha the prisoner had been residing for a short time at Mrs Ryde's, the widow of a chemist, at Alexander Terrace, Ole Penge. The prisoner had conducted the business, with: view to purchasing it. Two cases of sending cheques to other tradesmen to cash were alleged against him. The prisoner declined to say anything in defence.

#### THE WESTMINSTER COLLEGE.

MESSRS. WILLS & WOOTTON, and the students attending their institution, dined together a little before Christmas Mr. Wills occupied the chair, and presented medals and testimonials to students who had been successful during the session. The company numbered more than 100, and after an excellent dinner a number of toasts, songs, and recitations filled up a pleasant evening. "The success of the Westminster College" was pledged with much enthu

## Probincial Reports.

#### ABERDARE.

EXCISE PROSECUTION. - At Aberdare Police Court or December 23, Daniel Tudor Williams, carrying on business apparently as a chemist and druggist at the Medical Drug Hall in Gadlys Road, was summoned for selling a bottle of whisky, he not holding a licence entitling him to do so John Davies stated that on November 14 he went to the defendant's shop in Gadlys Road, Aberdare, for some salts and a bottle of whisky, which was supplied to him by Mrs Williams. Defendant's wife at first showed some little hesitation in serving him with the whisky, and said they were out of it, but eventually, however, she let him have the bottle produced, and charged him 2s. 4d. for it Defendant's servant, Maria Floud, stated that she was washing out the shop when Davies came in and asked for some salts. When he asked for a bottle of whisky Mrs Williams replied that she did not keep spirits, and Davie: left without it. The stipendiary considered the case proved and fined the defendant 121. 10s., one-fourth of the ful penalty of 50l. The supervisor of the district pointed out that by one section of the Act of Parliament, a person who had held a licence and had been convicted of selling spirits was not again allowed to hold such a licence. Defendan formerly held a licence, which he did not renew in July last. The fine was paid. In March last (see C. & D., 1879 pp. 93, 95) the name of Daniel Tudor Williams was erased from the Pharmaceutical register on the ground that it had been placed there on fraudulent representations. Williams has since paid two penalties of 51. to the Pharmaceutica Society, and has been convicted before the magistrates.

#### BIRMINGHAM.

MIDLAND COUNTIES CHEMISTS' ASSOCIATION .- The annual soirée of the Midland Counties Chemists' Association was held in the Town Hall on January 1. About 500 persons attended, and, as usual, the gathering proved a highly enjoyable one. In the early part of the evening the visitors occupied themselves by listening to a promenade concert of operatic selections by Messrs. Synyear and Gilmer's band, and by inspecting microscopic novelties and chemica experiments, which were shown in the great gallery and corridors. At half-past eight o'clock Mr. Hubert Langford gave his amusing sketch, "Studio Studies; or, Musica" Models," which was very warmly received. This was followed by dancing, which was entered into with spirit, under the director of Mr. Howell. A number of microscopes and slides were lent for the occasion by members of the Bir-mingham Natural History and Microscopical Society Messrs. Southall Brothers & Barclay exhibited a number of chemical experiments in the corridor, illustrating the chemistry and structure of various flames. These were made under the superintendence of their chemist, Mr. H. W. Jones, F.C.S. Messrs. P. Harris & Co. exhibited in action a fine series of electrical apparatus and chemical appliances.

#### CAMBRIDGE.

NORFOLK BAKING POWDER .- At the Quarter Sessions of the borough of Cambridge on January 9 an important case under the Adulteration Act was heard before the Recorder, Mr. J. R. Bulwer, Q.C., M.P., in the form of an appeal from a conviction by the Cambridge magistrates under the Sale of Food and Drugs Act (38 and 39 Vict., cap. 63). The case originated in a conviction by the same magistrates of a baker for selling buns mixed with alum, his defence being that he merely used a powder called Norfolk Baking Powder, manufactured by Messrs. Smith & Sons, wholesale druggists, Magdalen Street, Norwich. Upon the hearing of this case the magistrates suggested that the makers of the powder should be proceeded against, but this being impracticable, as the makers resided without the borough jurisdiction, it was determined to proceed against Messrs. Warren, grocers, who sold the powder in Cambridge. Messrs. Warren were convicted under the 2nd section of the Act. These proceedings (reported in the Chemist and Druggist last month, page 525), although nominally against Messrs. Warren, were really and substantially against Messrs. Smith & Sons, the manufacturers of the Norfolk Baking Powder, and on the conviction of Messrs, Warren notice of appeal was given. This appeal was heard on Friday, when Mr. Blofield and Mr. Horace Browne appeared for the appellants, the counsel for the respondents being Mr. Cockerell and Mr. Edward Turner. The scientific witnesses for the respondents deposed that the alum contained in the powder would tend to harden the gluten of bread, rendering it indigestible, and so producing injurious effects. On behalf of the appellants it was contended that the powder was used merely for the purpose of liberating the carbonic acid gas in the preparation of food, and that the injurious effects of the alum in it were neutralised by the other ingredients of which the powder was composed. After hearing the evidence of several eminent chemists in support of this contention, the Recorder stopped the case, and in giving judgment expressed his opinion that bread made with the powder was not at all injurious to health. The appeal was then allowed with costs against the respondents, and the conviction quashed. The costs allowed amounted to 100%.

#### DEVONPORT.

DEATH AFTER TAKING STEEDMAN'S POWDER .- An inquest was held at Devonport on December 19, on an infant aged 19 months, son of Abraham Hill, residing near Worthing. Sussex, then staying at 2 Tavistock Street, Devonport. The child was taken ill on December 18, and the mother, thinking it was teething, gave it a Steedman's soothing powder. It was soon after seized with convulsions, and the mother called in Mr. Horton, who prescribed a bath for it. Before the bath could be prepared the infant dicd. A post-mortem examination made by Mr. Horton showed that the child had suffered from water on the brain, and was weakened by purging and want of food, so that its system was unusually usceptible to narcotics. He was of opinion that the deceased child had died from the effects of a narcotic administered o it in some form. In reply to questions from the jury, Mr. Horton said he could not say whether the powder adminisered contained opium or not. If it was a soothing powder and did not contain opium, it was simply a fraud in itself, occause soothing powders must contain a narcotic.—The ury returned a verdict of "Death from natural causes, accelerated by the soothing powder," but expressed the opinion hat no blame could be attached to the mother.

A CORONER ON COUNTER-PRESCRIBING.—At an inquest held before Mr. Vaughan, the Devonport coroner, on becember 18, on a child aged two years, some undignified cenes occurred in consequence of the strange conduct of a urgeon named Horton, who was concerned in the case. The nother of the child stated that when the infant was first nwell she took it to Mr. Lamble, a chemist, who gave her ome medicine, but advised her to get a doctor if more rious symptoms developed. This was on a Monday; the hild got worse, but it was not till the Saturday that she

sent for Mr. Horton. She said she sent three or four times on the Saturday, and again on the Sunday morning, but Mr. Horton did not come till about noon on the Sunday. He called again on the Monday, but the child was then dead. A good deal of warm altercation took place between Mr. Horton and some of the jury and the inspector of police after this evidence, the surgeon apparently losing his temper. He stated that he was out on his rounds when the messenger came the first and second times, that he came home very tired and unwell and went to bed, that he declined to go to the case that night unless he had a fee of half a guinea, which he named in order to induce the parents to send for some other medical man. The Coroner inquired whether he thought the chemist prescribed rightly? Mr. Horton replied that he could not say, as he did not see the medicine, but the medical profession did not recognise the right of any chemist to prescribe, and valuable time was wasted in the treatment of the child. Under the circumstances he declined to grant a certificate. After some further quarrelling the Coroner summed up, and remarked that there appeared to be a feud existing in the town between the medical men and the chemists, both of whom were very useful bodies of men, and discharged important functions. Poor people who could not afford a doctor had recourse to a chemist, and, although Mr. Horton declined to give a certificate, whereby this inquest had to be held, yet Mr. Lamble seemed to have acted in a perfectly straight-forward manner, seeing that he advised the mother to call in a doctor. Mrs. Warren seemed to have acted foolishly and ignorantly in not calling in a surgeon before she did, and then in not sending for some other medical man when it was ascertained that Mr. Horton was away. Mr. Horton seemed to have been misled by a remark of the messenger. and consequently did not attend to the case until the symptoms were too far advanced. He did not see that blame could be attached to anyone: certainly rot to the chemist, and, in accordance with his direction, the jury returned a verdict of "Death from natural causes."

#### DURHAM.

MELANCHOLY DEATH OF A CHEMIST. - An inquest was held on December 23, at the Durham County Hospital, touching the death of William Robson, 51 years of age, who died on December 19. Deceased was formerly a well-to-do chemist and grocer, carrying on business in the neighbourhood of Durham. Latterly he had retired from business, and, it appeared, had become addicted to drinking. On December 12 he was found lying drunk in the hedgeside about two miles from Durham. He was carried into the nearest public-house, and laid in a stable in the yard. In the same stable were a cow and a young horse. A few hours later the landlord went into the stable to see how the man was getting on, and found Robson lying close to the horse's heels, and he had a cut on his forehead. A doctor was called in, and Robson was conveyed in a cart to Durham Infirmary. When first admitted there were no symptoms of concussion of the brain, but on December 18 he lost the use of his side and also his eyesight, which he never regained. A postmortem examination was made by the house surgeon, showing that the cause of death was the injury to the brain and inflammation of the membranes caused by the wound on the forehead. The landlord of the public-house explained that it was a breach of the law to take a drunken man into a public-house. The jury found that the deceased had died from injuries caused by a kick from the horse in the stable.

#### EXMOUTH.

SUICIDE BY LAUDANUM.—At Exmouth on December 19 an inquest was held respecting the death of Jessie Maria Pearson, 26 years of age, a governess in the employ of Colonel Bazalgette. She was seen in her bedroom by a maid servant at 10 o'clock on the night of December 17 in her usual health. On the following morning she was found apparently in great pain. On the mantelpicce were found two bottles, each labelled "laudanum," and an empty wineglass on a table near the bed. Remedial measures were adopted, but without avail, death speedily taking place. Laudanum had been purchased on the previous day at the shop of Mr. Bickford, and it was inferred 2 oz. had been swallowed. No cause for suicide was assigned or suggested

at the inquest. The jury returned a verdict to the effect "That the deceased had committed suicide by taking laudanum whilst in a state of unsound mind.'

#### GLASGOW.

FIRE.—On December 13 a fire broke out in the chemist and druggist's shop at 11 Trongate, occupied by Dr. Samuel Smith. It was speedily extinguished, the damage done to stock and fittings being estimated at about 100%.

GLASGOW CHEMISTS AND DRUGGISTS' ASSOCIATION.— The third general meeting of the Association was held in Anderson's College, 204 George Street, on Wednesday, January 7, Mr. Alex. Kinninmont, F.C.S., President, in the chair, and after the minute of previous meeting was read and adopted the President called upon Mr. John C. Hunter to give his paper on "A Botanical Visit to Kew Gardens." Mr. Hunter began his lecture by stating that the most enjoyable way of getting to Kew was by sailing up the Thames from about the Houses of Parliament, and after describing some of the places of interest on the way up to Kew, he gave a short account of the early history of the gardens, and mentioned some of the wonderful plants in Museum No. 3, such as the Rafflosia Arnoldi, from Sumatra, and the Welvitschia mirabilis, discovered by the late Dr. Welwitsch in South-Western Africa, &c. Passing on to the growing plants, Mr. Hunter then mentioned some of the contents of the large palm-house, with its splendid collection of palms and other tropical plants; afterwards reference was made to the other houses containing the tree ferns, orchids, heaths, &c., not forgetting the Victoria Regia house and its beautiful lily. Mr. Hunter concluded by giving a short account of the hortus siccus or heroarium of Kew, and its appliances for the promotion of scientific botany. On the table a collection of some British ferns and other plants was placed, to illustrate some of the characters of the various plants spoken about in the lecture. After some remarks from Messrs. Brodie and Clarke, the President asked the meeting to award a hearty vote of thanks to Mr. Hunter, which was duly given, and after the election of members the meeting closed.

#### HULL.

CHEMISTS AND DRUGGISTS' ASSOCIATION.—The annual dinner in connection with this Association was held at Hull on the 19th ult. The Mayor (Alderman King, M.D.) presided, and the Vicar of Hull (the Rev. J. McCormick), Dr. Hulden (Medical Officer of Health), and several members of the Town Council were present. An excellent repast was provided. The loyal and patriotic toasts having been duly honoured, the Mayor gave "The Archbishop and Clergy of all Denominations," and the Rev. J. McCormick, in responding, said he thought if England was searched through a more respectable class of society than the chemists could not be found. They were looked up to by the people, and respected by all classes. The chemists had often a great many calls upon them, and how they managed to meet all the applications he could not make out. The Rev. J. Branston also responded. Mr. James Oldham (an ex-President of the Association) proposed "The Mayor and Corporation." The trade, he said, considered it was a great honour to their business that they had a member of the medical profession at the head of the Corporation. They considered that the medical profession was allied to their business, and therefore they felt some interest in the matter. They were not only honoured by the presence of the Mayor, but he was sure they must all be gratified at having so many members of the Town Council amongst them. He did not think they had been honoured in such a manner before. It showed that the profession stood well in high quarters. The Mayor, in acknowledging the toast, took the opportunity of urging a better system of drainage for Hull as a preventive of epidemic diseases. The Mayor next proposed the toast of the evening, "Success to the Chemists' Association." He thought it was a most desirable thing that members of every business should be connected by some kind of bond, as such associations did a great deal to elevate those who belonged to them. There were now in Hull as good opportunities for studying chemistry, scientifically and practically, as in any other town in the kingdom. He hoped the students connected with their profession would

take advantage of these opportunities. He could not help feeling that the Chemists and Druggists' Association had done a good part for the town in general by promoting habits of thought and education among young men. (Applause.) Mr. Councillor G. Myers (President) responded. The Association, he said, had been established about eleven years. Mr. Bell, the honorary secretary, was the last of the founders who took it into their heads to form this Society for the purpose of assisting students. Legislature had enacted that a chemist must pass an examination before he could trade. An apprentice was unable to get a proper knowledge of the profession by simply being behind the counter, and they, therefore, felt bound to provide some kind of education for them. Up to last year they had been very successful with regard to the examinations of their students. The Society was also established for the purpose of protecting their trade. Of all trades that of the chemist and druggist was the most restricted, except, perhaps, the licensed victuallers. But they must remember that chemists had not the protection they had. The trade would be glad of the restrictions if they had a better share of protection. What did they get? They were allowed to sell poisons, the sale of which would not make up the wages of an errand boy. That was what they got for having to pass a severe examination. The Society also gave them opportunities of meeting together and discussing matters which were useful to their profes-sion. He deemed it a great honour to be their President, and during his term of office he would do his best to further the interests of the trade. (Applause.) Mr. Allison next gave "The Town and Trade of Hull," to which Mr. J. T. Smith (President of the Hull Chamber of Commerce) responded. Several other toasts were proposed, including "The Pharmaceutical Society and Trade Defence Association," proposed by Mr. Stoke, and responded to by Mr. Bell, the honorary secretary.

#### LEEDS.

SUICIDE OF A WHOLESALE DRUGGIST.—The Leeds Coroner on Jan. 6 held an inquiry as to the death of John Hartley Jennings, a wholesale druggist, who had committed suicide by taking a large quantity of morphia. The jury agreed as to the cause of death, but found there was no evidence as to the condition of the deceased's mind at the time.

LEEDS CHEMISTS' ASSOCIATION.—The second lecture of the session was given on December 12 to the members and associates of the Leeds Chemists' Association-Councillor Stead in the chair—by Mr. T. Fairley, F.R.S.E., on "Glass: its Manufacture and Mode of Working." After a short history of the manufacture, and notes on the chemistry of glass, the lecturer described some special varieties. The iridescence shown on certain glass was due to a surface decomposition, either by long-continued action of moisture, as in glass buried in the earth, or of moisture and ammonia, as in some old windows; or iridescent glass might be made artificially, as was now done, by the action of a hot atmosphere of hydrochloric acid gas. The lecturer also described and illustrated the manufacture of De la Bastie's toughened glass, by heating a glass to redness, and suddenly plunging it into a mixture of hot oil and wax. Mr. Fairley explained the structure of this toughened glass, and said its remarkable strength resided only in the outside layers, caused by the quick cooling contraction and compression of the whole mass. He showed specimens of toughened glass from which the outer layer had been removed by hydrofluoric acid, and which was then like ordinary glass. He also stated that a bath of mercury or fusible metal could be used in the process, though with less perfect results than the oleaginous mixture. In conclusion, the lecturer explained the details to be observed in the working of glass for laboratory purposes.—A cordial vote of thanks was accorded to Mr. Fairley, on the motion of Mr. R. Reynolds.

#### LINCOLN.

DILUTED SPIRIT OF NITRE .- At the City Police Court, on December 24, George Harrison, shopkeeper, of 38 Hungate,

nd purchased of him 4 oz. of sweet nitre, for which he ave him 1s. The sample was analysed by Dr. Harrison, ho certified that its specific gravity was '902 instead of 45, as required by the Act.—Hannah Taylor, shopkeeper, f. 90 Newland Street West, was charged with a similar ffence. In this case 6 oz. were purchased, and the pecific gravity was '920.—Elizabeth Lord, of Orchard Street, as summoned for a like offence. The 6 oz. of nitre hich were purchased in this case were of the specific ravity of '904. As these were the first eases of the kind at had come before the Bench, a nominal fine of 2s. 6d., ith 12s. 6d. costs, was inflicied.

MR. CLARKE'S CHRISTMAS GIFTS.—F. J. Clarke, Esq. x-Mayor, issued, on December 22, to about a thousand needy idows and spinsters tickets entitling each of them to a ouple of bags of coal.

#### LIVERPOOL.

THE PRICES OF PATENT MEDICINES.—During the past ear a warm controversy has been carried on between Mr. brahams on the one hand and the Registered Chemists' ssociation on the other, respecting the prices to be charged or patent and proprietary articles. Of course the mania or cutting prices has been in full force in Liverpool and irkenhead for a long time, and a year ago Mr. Abraham ntimated to the committee of the Trade Association the ntention of his firm (Messrs. Clay & Abraham) to revise acir scale of prices for proprietary articles. At the earnest esire of the committee he made no alteration for some nonths, but about July last he thought the time had come or a change, and since then we believe Messrs. Clay & braham'have sold generally 1s.  $1\frac{1}{2}d$ . and 2s. 9d. articles at 1s. nd 2s. 6d. respectively. The Registered Chemists' Association aving asked Mr. Abraham to reconsider his decision in is matter, the latter gentleman has replied in a pamphlet irculated to all the members of the Association. The bllowing extracts from Mr. Abraham's reply may be of eneral interest. Referring to the letter of the secretary of 1c Association, he says:—"I wish dispassionately to con-ider the opinions expressed. It is contended that a profit f 50 per cent. is not too much for proprietary articles, hich, although distributed without difficulty or responsiility, are but in small demand. This may in certain cases where the value is very small, often only a few pence) no oubt be true, but what must be the result of attempting to cep up the price of the large number of articles which are a constant demand? Why, naturally, unless the laws of olitical economy are to be specially altered in the interests f chemists and druggists, only one result can follow, viz., hat the public will get such articles from those who can and ill sell them at a smaller profit, especially if they employ askilled labour. The result will indeed daily increase importance, and if not speedily checked will eventually ad to the entire loss by chemists and druggists of the ade in such articles, such having, I believe, already hapened in some places. It is contended by some that we unnot meet our opponents except by reducing prices to their vel. My opinion is different. My position is that we hould charge a fair profit that we may adhere to if chalnged." Iu another part of the pamphlet Mr. Abraham rites:—"The mode of fixing the prices of proprietary ticles is altogether anomalous. It is usual that manufacarers shall fix the prices at which they will sell their goods, at in this case they also assume to fix the prices at which eir customers shall retail them, which most admirably cilitates the designs of our opponents. I think we should ot fall into what is in effect a trap. The manufacturers of is class of preparations have their objects, not ours, to rve in fixing these prices. They wish to induce us to keep eir articles, and then to make it our interest to recomend them. This system has afforded our opponents a very ady mode of discrediting us and advertising themselves, hich would be at once destroyed if we refuse to be bound the selling prices suggested by the makers. A judicious tion on our part may defeat the unfair competition which as sprung up. I call it an unfair competition, because the ersons engaged in it do not seek the business for the sake the immediate profits, but for the purpose of creating a dse impression of the cheapness of other goods in which ey deal, and, perhaps, to attract people to their shops."

#### MANCHESTER.

UNFERMENTED WINE.—Last month, at the Salford Police Court, Mr. William Pilling, chemist, New Bailcy Street, Salford, was summoned under the Foodand Drugs Act for selling what purported to be "unfermented port or sherry wine, manufactured from the juice of the grape, and used for family and sacramental purposes," which was not of the substance, nature, and quality demanded by the purchaser. The case was defended by Messrs. Bell & Co., Upper Milk Street, Liverpool, the makers of the wine. The wine cost 2s. 6d. per bottle, and the inspector in cross-examination said he did not actually ask for the juice of the grape, but expected to get what was stated on the bottle, namely, unfermented wine, manufactured from the juice of the grape. Mr. Carter Bell, the public analyst, said that the liquid might have contained an infinitesimal proportion of the juice of the grape, but there certainly was not 10 per cent. For the defence it was stated by Messrs. Bell's manager that the wine contained one-sixth part of pure grape juice, and that the rest was sweetened water with a little burnt sugar to colour the liquid. Mr. Bell said he had no fewer than 3,284 wholesale customers for the article, that he supplied it to 15 Nonconformist churches in Bradford, and that at one ehapel a dozen bottles were drunk every Sunday. Mr. L. Siebold, analytical chemist, deposed to analysing specimens of the wine purchased by the inspector. He found that the predominant constituents of the wine were such as were contained in the juice of the grape. The stipendiary, after hearing the evidence, said he was of opinion that the summons must be dismissed, inasmuch as it was not proved that the wine did not contain some proportion of pure grape juice, and no standard was fixed by the law by which he could decide whether the proportion was sufficiently large or not to justify the sale. The defendant was allowed

#### NOTTINGHAM.

NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.—A meeting of this Association was held on Tuesday evening, December 16, at Britannia Chambers, Pelham Street, the chair being occupied by the Vice-President, Mr. Frank White, when Mr. II. Major, B.A., B.Sc., F.R.G.S., delivered a most interesting lecture on "Earthquakes and Volcanoes." The lecture was attentively listened to by a numerous audience, and was loudly applauded. After the lecturer had replied to a few questions, the Chairman proposed a hearty vote of thanks to him, which was seconded by Mr. R. Jackson, carried unanimously, and acknowledged.

#### RETFORD.

AN INGLORIOUS VICTORY.—Last month an old man was charged before the Retford Bench with selling cigars without a licenee. He pleaded that his cigars were not made of tobacco, but of bay and cabbage leaves, and the magistrates had to let him go. The Iuland Revenue officers gave notice of appeal, but it is difficult to see what chance they have of a conviction.

#### WARRINGTON.

SCIENTIFIC COMMUNION.—Mr. Fletcher, the maker of scientific instruments, has invited gentlemen of the neighbourhood interested in science to meet at his laboratory every Thursday evening during the winter months, to smoke aud discuss new and interesting scientific matters. These meetings are so arranged as to be of little or no cost to the promoter, so that anyone may feel free to come, and it is thought that this informal proceeding may form the nucleus of a scientific club.

#### YORK.

GERMAN YEAST AND THE SALE OF FOOD AND DRUGS ACT.—At the East Riding Petty Sessions, at York Castle, on December 27, William L. Appleton, shopkeeper, Fulford, York, was summoned for having sold on December 1 ½ lb. of German yeast, which was not of the nature, substance, and quality of the article demanded. Inspector Farrah visited defendant's shop, and asked for ½ lb. of Dutch yeast. He was informed that there were only French and German yeasts in stock. He purchased ½ lb. of the latter, and declared that his purpose was to have it analysed.

Mr. Baynes, of Hull, the East Riding analyst, certified the yeast to be adulterated with 35 per cent. of potato starch. Defendant pleaded that he bought the yeast for pure, and that he had neither the means nor the intention of adulterating it .- Major Bower (chief constable of the East Riding, who was present to watch the case) suggested that the defendant should get a warranty from the wholesale dealer; but Mr. Holtby (magistrates' clerk) doubted the necessity of this. Between the magistrates and their clerk some discussion took place, the latter observing that the yeast was made from the refuse of gin, and so prepared that it could be imported into this country in bulk.—One of the magistrates said that, to his mind, the potato starch had been added in order that the yeast might be brought over in a solid state.-The Clerk thought it was unfair to say that the yeast had been adulterated by the use of potato starch. If anything deleterious had been found in the yeast it would have been an offence.—A Magistrate: It says "adulterated."—The Clerk: I don't think potato starch is an adulteration.—The Bench considered that no adulteration had taken place, and dismissed the case.

#### PATENT MEDICINES IN VICTORIA.

WE have already stated that the duty on drugs which, in its new tariff, was imposed by the Williams its new tariff, was imposed by the Victorian Legislative Assembly was withdrawn at the earnest solicitation of the Pharmaceutical Society of Victoria. In its place, however, the Government insisted on a duty on patent medicines. The following is the debate which occurred in the House on this subject, and which we take from the Australasian Supplement to THE CHEMIST AND DRUGGIST.

The following was proposed:-

Medicines, patent, being medical preparations or compositions recommended to the public as proprietary medicines, or prepared according to some private formula or secret art, as remedies or specifics for any disease or diseases or affections whatever affecting the human or animal body, not containing spirits, 25 per cent. ad

Mr. Bosisto said that the words "medicinal preparations or compositions" should be struck out, as they would cover

fluid magnesia and cod-liver oil.

Mr. L. L. Smith said that under this duty pcarl-coated pills might be regarded as patent medicine. They were patented, in a sense, but there was no secret about their composition. They were cheap and very useful in the bush, and should not be taxed.

Mr. Lalor said that if all the distinctions of medical men were to be observed they would require a medical expert at

the Custom-house.

Mr. Blackett\* suggested that the difficulty might be overcome by adding the words, "And being subject to stamp duty in the country from which they are imported."
Mr. L. L. Smith: Hear, hear.

Mr. Blackett: The proposed duty is purely for revenue purposes, and unless drawbacks are provided for it will injure the intercolorial trade.

Mr. Lalor said drawbacks should be allowed on exporta-

Mr. Service: This duty is purely for revenue purposes, and yet the great bulk of the patent medicines are used by the poorer classes of the population. (Hear, hear.)

Mr. Blackett remarked that the medicines known as patent medicines were for the most part nostrums which made their way by dint of advertising. He had analysed "Eno's fruit salt," which was largely advertised as a new medicine derived from fruit, and found that it consisted simply of citric acid and carbonate of soda. He believed in a tax on patent medicines because it was a tax on

Sir Bryan O'Loghlen thought the object of the hon. member's amendment was met by the use of the term "patent medicines."

Mr. Blackett said the word patent meant some-thing patented. Very few medicines in England were patented, and the word patent was synonymous with nostrum.

Mr. Lalor was of opinion that nothing in the shape of patent medicines should be allowed to escape. His experience was that patent medicines were just as good as any

other. (Laughter.)

Mr. Service pointed out that a great many sorts of pills were not patent medicines, and that these would escape

Mr. Kernot explained that a patent medicine meant an excise stamp attached to a box. There were no patents

taken out with reference to the composition.

Mr. Bosisto suggested that the hon. member for Fitzroy should withdraw his amendment, because, if it were passed, the Americans would take care to have no stamps on the medicines.

On the suggestion of Mr. Lalor, the item was amended by the insertion of the word "called" before the word "patent," and then the words proposed by Mr. Blackett, "or being subject to a stamp duty in the country from whence they are imported," were added at the end.

Mr. Johnstone moved that the 25 per cent. duty be reduced

to 15 per cent.

The amendment was negatived.

Dr. Madden proposed that the whole item bc struck out. Medicines were not a luxury, and why should a tax be placed upon that which was a remedy for disease? Eno's fruit salt was a very pleasant and effective medicine, and he hoped its popularity would not suffer from the remarks which had been made. There were quantities of proprietary medicines which bore no stamp, and these would escape the tax.

Mr. Munro thought the heavier the duty on these articles

the better it would be for all parties concerned.

The item, as amended, was passed. Subsequently, at the quarterly meeting of the Pharmaceutical Society of Victoria, held on October 3, the President, Mr. C. R. Blackett, member of the Legislative Assembly, in the chair, a discussion took place as to the possibility of agreeing on a uniform tariff for medicines prescriped by medical practitioners, patent or proprietary medicines, drugs, chemicals, and sundries. A committee was appointed to draw up a report which was to be presented to a meeting of the trade. Several members, however, thought that in view of the new duties it would be better to settle the new prices for patent medicines on the spot. Mr. Lewis thereupon moved, and Mr. Baker seconded, and the members present agreed unanimously to, a resolution, fixing the following prices to be charged from and after October 6:-1s. and 1s.  $1\frac{1}{2}d$ . articles, 1s. 6d.; 1s. 6d. articles, 2s. 3d.; 2s. articles, 3s.; 2s. 3d. articles, 3s. 3d.; 2s. 6d. articles, 3s. 6d.; 2s. 9d. articles, 3s. 6d.; 4s. 6d. articles, 5s. 6d.; Eno's fruit salt, 4s.

HOMER'S MEDICAL KNOWLEDGE.—Dr. Henry Dunbar, in the British Medical Journal, writes a learned article analysing the passages bearing on medicine, surgery, therapeutics, and anatomy to be found in the "Iliad" and the "Odyssey." The attempt to prove that "Homer must have had a very considerable knowledge of the internal economy of the human frame" is hardly proved by this disquisition. The writer gives a list of the parts of the body mentioned by Homer. We see nothing very wonderful in the fact that Homer knew the Greek names for the belly, the liver, the eye, or the lung, though the names look scientific enough. That the word "pharmakon" occurs nine times in the "Iliad" and twenty times in the "Odyssey" is perhaps a curious fact, but it seems to suggest that the poet preferred to use that vague general term rather than risk any more specific one. Once he alludes to the "pain-assuaging rhiza," or root, which of course may have been a species of geranium, as Dr. Dunbar conjectures, but which, perhaps, Homer himself would not have cared to name more definitely. Perhaps Dr. Dunbar means it for a joke (we are not quite sure) when he remarks that after the gods had been feasting and drinking the whole day there is no mention of, a subsequent gout or headache.

<sup>\*</sup> Mr. Blackett is the President of the Pharmaceutical Society of Victoria.

#### FORMULÆ OF SECRET MEDICINES.

The Formulæ given below are translated (by special permission of the author) from a German collection compiled by Mr. Edward Hahn, Apotheker. The names following most of the Formulæ are those of the authorities quoted for the analysis. The weights are almost invariably given in metrie denominations. A gramme is equivalent to 15½ grains. The prices quoted are the nearest English equivalents to the original retail price.

PERRY'S MOTH AND FRECKLE LOTION (Dr. B. C. Perry, New York).—A colourless solution with a white deposit. The solution contains 72 per cent. of corrosive sublimate, and 85 per cent. of zinc sulphate; the precipitate contains mercury, lead, and bismuth.—Chandler.

MOTTENMITTEL—MOTH POWDER.—Rye meal with some powdered camomile. 100 grammes, 4s.—Reinsch.

MOTTENPAPIER—MOTH PAPER.-Glazed paper covered on one side with a mixture of gum arabie, about 3 parts, ethiops gummosus 5 parts, and water. The æthiops gummosus is prepared from mercury, 2 parts; gum arabic, 2 parts; sugar, 1 part. The paper must be placed between and in the pillows.

CHINESISCHE MOTTENTINCTUR—CHINESE MOTH TINCTURE.—Used in Russia for preserving furs with pretended great effect. Camphor, 1; alcohol, 8; colocynth or capsicum, 1; make a tincture.—Wittstein.

FUHRMANN'S MOTTENTINCTUR.—Coloeynth, 1: capsicum, 1; black pepper, 1; strong spirit, 10; perfumed with camphor, and clove and lavender oils. 250 grammes, 1s.—

Hager.

AROMATISCHE MUNDSEIFE VON ZALMON—ZALMON'S AROMATIC MOUTH SOAP.—A pound of neutral soap, prepared from fat of the best quality, is dissolved in cold distilled water; 100 grammes finely sifted cuttlefish-bone are added to the solution, with a fourth of its bulk of rose or orange-flower water, and the whole is evaporated at a gentle heat. When the desired consistency is nearly reached, add 3 grammes each of peppermint oil, sage oil, virgin honey, and extract of wine vinegar or lemon oil; the whole mixed quickly by stirring, and poured into moulds or vessels before cooling. Colouring matter can be added at the same time.

MUND- UND ZAHN-ESSENZ VON A. OTT—A. OTT'S MOUTH AND TOOTH ESSENCE (Augsburg).—A solution of spearmint oil in spirit. 15 grammes, 6d.—Wittstein.

MUNDWASSER DES WUNDARZTES FR. BIER—SURGEON FR. BIER'S MOUTH WASH (Vienna).—"The best remedy for rheumatic-toothache, for inflammation, swellings, or uleers of the gums; for loss of enamel, for strengthening the gums and cleansing the teeth and gums from all dangerous substances." A filtered mixture of peppermint oil, about 5 drops; spirit, 42 grammes; weak watery infusion of melissa herb, 67 grammes. 2s.—Hager.

Cosmetisches Mundwasser von J. Podlmann—J. Pohlmann's Cosmetic Mouth Wash (Vienna).—Anise and cinnamon, of each 8 parts; guaiacum resin and benzoin, of each 4 parts; pellitory root,  $\frac{2}{5}$  part; strongest rectified spirit, 240 parts; digest for some days, filter, and add of finest peppermint oil  $\frac{1}{5}$  part, and seurvy grass water 30 parts.

Dr. Finn's Wassersuchtmittel — Dropsy Cure. — Totassa sulphurata, 15; rad. pæouiæ, 7·5; jalapæ, 7·5; seillæ, 5; m. f. pulv.

J. Funk's Gichtwasser—Gout Water.—This is made at the Hofapotheke, Mayence, and a guarantee of its virtues of 50l. is offered. S., in the Bunzlauer Pharm. Zeit., states that it is a weak spirituous solution of essential oils, thyme predominating, mixed with acetic acid.

JAMES' BLISTERING OINTMENT—FOR VETERINARY USE.

—A brown salve, in pots of about 30 grammes. It eonsists of unguentum basilicum with powdered cantharides, camphor, euphorbium, and nutmeg-oil.—Dr. Hager.

EXTRAIT DE CAMÉLIAS, a Parisian perfume, consists only of tinely-powdered white precipitate suspended in water.

#### MISCELLANEOUS FORMULÆ.

TRANSPARENT GLYCERINE-JELLY.—Dissolve 1 oz. transparent soap in 4 oz. of water and 4 oz. of glycerine with the aid of heat. While still warm add 20 oz. of glycerine; when cold perfume to taste. It is pale amber in colour.

OPAQUE GLYCERINE JELLY.—Mix 4 oz. of white soft soap in a mortar with 6 oz. of glycerine; mix 4 drachms of oil of thyme with 4 lbs. of almond oil, and add this gradually to the glycerine and soap, taking care to incorporate each portion thoroughly before adding more oil.

TOOTH WASH, specially suitable for spongy gums :-

Macerate for 10 days, and filter. Add ½ grain of cochineal rubbed up with 125 minims of peppermint water, and 2 minims gaultheria oil rubbed up with glycerine 50 minims; finally, sufficient distilled water to make 750 minims, or 1 fl. oz. 4½ fl. dr.

A few drops on a toothbrush previously dipped in water produces a rich lather when rubbed on the teeth; it speedily hardens spongy gums, and is fragrant and agreeable to use.—Dr. W. Myers, in New Remedies.

Pyroxylin.—M. A. Girard gives the following method of making pyroxylin:—The cotton is saturated with a solution of sodium carbonate, well washed and thoroughly dried. It is then plunged into a bath composed of water 100 parts, nitric acid, 3 parts. A very pulverulent cotton is thus obtained, which M. Girard names "hydro cellulose." This product seems far superior to the ordinary cotton for making pyroxylin for photographic purposes. Photographic pyroxylin is obtained by immersing the hydro-cellulose in a solution composed of sulphurie acid (66°), 1,800 grammes, nitric acid (40°), 680 grammes. After 12 minutes' immersion it is thrown into a basin of water and well washed under a tap. It is then allowed to dry spontaneously in a dry room.

CEMENT FOR GENERAL USE.—For joining paper, cardboard, or model work, or similar articles a good glue can be made of glue, vinegar, and alcohol. Dissolve 2 oz. of the best transparent glue in a quarter-of-a-pint of strong cider vinegar. Let it simmer slowly by placing the dish containing it in a dish of boiling water. When it has become liquid, add 1 oz. of highest-proof alcohol, and keep it tightly corked. If solidified by cold, heat in hot water when needed for use. Dilute acetic acid may be substituted for the cider vinegar.

PASTE FOR MOUNTING PHOTOGRAPHS.—Mix thoroughly 630 grains of the finest Bermuda arrowroot with 375 grains of cold water in a capsule, with a spoon or brush, then add 10½ ozs. more water and 60 grains of gelatine in fine shreds. Boil, with stirring, for five minutes, or until the liquid becomes clear, and wheu cold stir in well 375 grains of alcohol and five to six drops of pure carbolic acid. Keep it in well-closed vessels, and before use work up a portion carefully with a brush in a dish. It will keep for a considerable time.

TINEOL, for exterminating bugs, liee, moths, fleas, gnats, ants, &c. It is to be strewn moderately freely where it is required. Schweinfurt green (arseniate of copper) mixed with some vegetable powder.

CLEARING POWDER FOR WINES, LIQUEURS, VINEGAR, &c.—The Chemiker Zeitung quotes from "Dassori" a formula for a powder for fining wines and decolourising most fluids, which that authority declares to far surpass animal charcoal, and to contain no injurious property. It is made of albumen, 3 lbs.; neutral tartrate of potash,  $\frac{4}{5}$  oz.; alum,  $\frac{1}{5}$  lb.; muriate of ammonia, 7 lbs. The powder must not be added direct to the liquid to be cleared, but must first be mixed with cold water. About 20 grains of this powder are said to be sufficient for clearing a gallon of fluid.

# A VISIT TO MESSRS. ALLEN & HANBURYS' WORKS.

TWENTY years ago Messrs. Allen & Hanburys' prominence in the advertisement sections of general newspapers would have surprised their fellow-pharmacists as much as Saul's appearance among the prophets astonished his contemporaries. Hidden in Plough Court, cut off from the public thoroughfare, their selected seclusion seemed to the highly-respectable druggists of the last generation symbolical of the system in which pharmacy should be conducted. But the slavish adherence to such traditions has a dangerously narcotic effect even on the most firmly-established business, and Messrs. Allen & Hanburys are evidently not afraid to make concessions to the spirit of the age. They, if anybody, might have relied on the reputation which had been won by themselves and their predecessors; but having lately introduced more than one valuable specialty, they have not shrunk from adopting the only course available for bringing those specialties prominently before the public, viz., by availing themselves of the facilities for publicity afforded by the press.

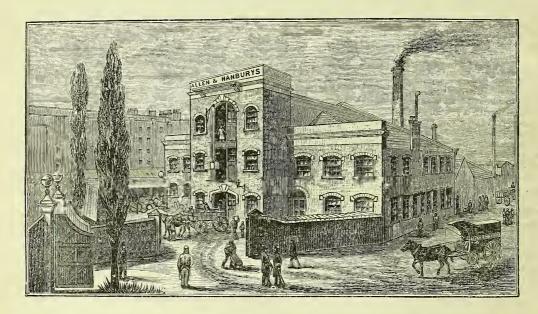
Their announcement, now so frequent, of "Perfécted" cod-liver oil is worth noting by students of the mystery of advertising. The simple addition of the accent to the second syllable of their special adjective compels the reader, as he glances over the advertisement, unconsciously to pro-

nounce the word to himself. That accomplished, the advertisement has mainly fulfilled its mission; time and circumstance will convert the attracted reader into a purchaser

Lately, we called at the wholesale and manufacturing premises which Messrs. Allen & Hanburys have of late occupied adjoining the Sanitas Company's Works at Bethnal Green, and were much interested in several processes there in operation, which we hope the firm will excuse us for disclosing.

Besides the usual offices and appliances which appertain to the establishment of every wholesale druggist, there are in the laboratory several pieces of apparatus which, if not unique in this country, are at least rare. There is, for instance, a large still, from which some 50 gallons of water are drawn daily, every drop of which has been freed from the last trace of ammonia by three separate washings of the steam in its passage through distilled water. The water thus prepared is used for dispensing in Plough Court, and is much appreciated by some analysts. A very ingenious method of accelerating evaporation is in practice here, the idea of which was suggested to Mr. F. J. Hanbury by Dr. Squibb, of Brooklyn. Dipping into the evaporating pans are jacktowels, which are kept constantly revolving by steam-power. They are, of course, continually taking up new liquid, and the exposed evaporating surface is thus largely extended, and the time occupied in the operation is considerably diminished.

Extract of malt is very extensively prepared by Messrs.



Allen & Hanburys at these works, a part of the product being sold by themselves, and a still larger proportion being used for Fry's nalted chocolate and other patented combinations. Cod-liver oil forms, of course, a very important item in this establishment, the bottling and the wrapping of the "Perfécted" being carried on without cessation by a staff of women. Messrs. Allen & Hanburys have their own manufactory of cod-liver oil in Norway, and capacious stores at Bethnal Green. In one room, kept at a moderate temperature, the process of filtration is continually in progress.

The manufacture of jujubes by Hawker's patent process, which was commenced by Messrs. Allen & Hanburys some five or six years ago, has grown into quite a large trade, as will be judged when we state that the room where the drying of the jujube cakes is in progress generally contains about 2 tons of these at once. The preparation of the jujube paste is carried on with the aid of a large amount of costly machinery, mostly of French design. Pate de Guimauve and Pate de Lichen, which, to be well made, need thorough beating,

arc manufactured in a large pan with which a very ingenious mixing apparatus has been connected. The pan is kept constantly revolving, while a large wooden spatula worked by a wheel with a crank-shaft makes a powerful slap right through the centre of the mass at every revolution of the Meanwhile another spatula with a screw motion keeps on breaking up the mass by the side of the beater. Other jujube masses are being prepared at the same time by experienced cooks, and 5 cwt. of gum are also in course of solution or filtration in another pan, to which is attached a stirring-machine in coustant operation. The paste destined for jujubes is poured into flat tins, and theu carried into the drying-room; that from which pastilles are made is poured while liquid into moulds in which they remain till The jujubes are cut into shape by a pretty set of machines, every shape requiring a special machine. This work, and all the subsequent operations, up to the wrapping of the tins, are performed by girls. Jujubes and pastilles are next mounted on frames to which rows of pins are ttached; they are then washed, and afterwards coated, which is the essential point of Hawker's patent, and this gives them a beautiful glaze, which retains its brightness far longer than the uncoated surface, and renders them much less liable to adhere. After one more drying, they are removed from their pins by another piece of machinery, and are theu ready for boxing. The manufacture is conducted throughout with the greatest cleanliness, and with the utmost attention to detail. Pure fruit juices are used for all the flavourings, and the ingredients are carefully chosen for their purity. It is not surprising that the business has grown so rapidly.

At these works Messrs. Allen & Hanburys employ about 50 men and girls, and the superficial space of their flooring reaches nearly 15,000 square feet. A telephone is in course of construction between the office at Bethnal Green and the counting house at Plough Court, which will bring them into instantaneous communication, thus affording nearly all the advantages of being under one roof, combined with the far more ample space, light, and other conveniences for manufacturing and wholesale business not to be had in the centre of the city.

#### PHARMACY IN NEW ZEALAND.

#### Wellington, October 24, 1879.

AT a meeting of the Pharmaceutical Society of New A Zealand, held at Wellington, October 7, 1879, a resolution was unanimously adopted, "That a circular stating the progress of the Society up to date should be drawn up and circulated for general information."

The following report has been prepared by the President,

Treasurer, and Secretary :-

On January 28, 1879, the Pharmaceutical Society of New Zealand was instituted, and in accordance with the unanimously-expressed wish of the profession throughout the colony, the head-quarters were fixed at Wellington, with local committees in Auckland. Christchurch, and Dunedin.

local committees in Auckland, Christchurch, and Dunedin.
Since then the movement has progressed most satisfactorily, and at present the number of members, exclusive of associates and apprentices, is 107; and the funds in hand, exclusive of one-fourth reserved by local committees for

eurrent expenses, are 1971. 5s. 4d.

However, it is to be regretted that a large number of chemists in business, amounting to one-third, have not yet joined the Society, probably because the matter has not been brought so prominently before them as it has been to others, and it is carnestly requested that all who have not done so already will give their immediate support to a movement which is alike calculated to elevate the profession and protect the public from dangerous imposters.

Those desirous of joining should send in their names, with subscriptions, either to the local secretaries, or direct

to the Secretary in Wellington.

In anticipation of the present session of Parliameut, the Society has drafted a "Pharmacy Bill" on the model of "The Victorian Pharmacy Act," which is an epitome of the three Acts of Parliament that constitute "The Pharmacy Act" of Great Britain at present in operation, and which

has been found to work well.

The main provisions of the New Zealand Pharmacy Act are to render examinations compulsory, and introduce means for systematic technical education. The proposed Bill has been submitted to a member of the Upper House, and he has assured the Wellington Committee that the Bill will command the cordial support of the Legislature as a measure calculated to afford important protection to the health and lives of the community, and that it is quite in accord with the views taken by the Commission at present sitting on high-class education.

Endeavours will be made not only to have chemistry classes instituted in connection with schools of mines, which are likely to be established, but to have portions of the several provincial botanical gardens set apart for the introduction and systematic culture of all plants of importance in medicine, not only to familiarise the rising pharmacists with living specimens in all stages of growth, but to render the colony independent of foreign supply, by introducing new

industrial developments in the furnishing reliable medicines belonging to the vegetable kingdom.

Every exertion will be made to ensure the Pharmacy Act becoming law this session; and a clause exempting chemists actually in business from serving on juries has been introduced.

Therefore it is manifestly of importance that all connected with the profession in the colony should join the Society prior to the passing of the Act, and not later than November 30 next.

(Signed)

CHARLES D. BARRAUD,
President.

J. A. ALLAN, Secretary.

OPIUM OF THESSALY AND THE TURKISH EMPIRE.

A Ta meeting of the Société de Pharmacie de Constantinople, held on November 3, 1879, the President, Ch. Bonkowski Effendi, read a report on two samples of opium from Thessaly, which he had analysed during the previous week. A sample of opium collected on the farm of Zerk, near Larissa, contained 11 3 per cent. of morphine and 11 per cent. of moisture. The second, collected at Yéni-Chori, a village near Tricala, coutained 10 7 per cent. of morphine and 13 95 per cent. of moisture. The cultivation of opium in Thessaly had been initiated by M. Paspalli, director of the firm Christaki Effendi, Zographos of Galata. The crop for 1878 at the places mentioned amounted to 180 okes (504 lbs.), and for the past year to about 300 okes (840 lbs.), while it might have reached 1,000 okes but for the negligence of the overseer. The opium is made into large somewhat conical masses, weighing 300 to 450 grammes (10½ oz. to 16 oz).

On October 25, 1879, a notice was published in the *Phare du Bosphore*, announcing that for the encouragement of the cultivation of opium in Asia Minor, this plant would be exempted from tithes for three years from the time when

its cultivation is commenced in new districts.

M. Bonkowski then referred to an account of the Mozambique Opium Cultivating and Trading Company, described in The Chemist and Druggist for May, 1878. This company was floated by de Paiva Raposa, a Portuguese, to introduce the cultivation of opium in the Portuguese possessions in South Africa. The paragraph was quoted by several papers, but when it reached Constantinople the name English had been substituted for Portuguese.

In face of this important occurrence M. Bonkowski considered that it was the duty of the Société de Pharmacie to warn the Imperial Government of the danger menacing the indigenous cultivation of opium. He proposed, therefore, that a letter should be addressed to the Government setting forth the aforesaid facts, and offering the disinterested

assistance and scientific information of the Society.

The resolution was passed unauimously. The alarm, we believe, is quite needless. The opium produced by the Fortuguese in South Africa will compete with that produced by the English Government in India. China will probably by the chief market, and the Indian, not the Turkish, revenue will suffer from this enterprise. Indeed, it is remarkable how little the European market is influenced by the immense consumption and production of opium east of the Caspian and the Persian Gulf.

INTERNAL USE OF TAR.—Professor Reclam, of Leipzig, in a number of the Berlin Klin. Wochenschrift, July, reports some therapeutic experiments with tar. He used it in pills or capsules, and says that tar water is not so efficient. One curious and constant effect noted was that the urine of a patient taking tar does not decompose for five or six days, instead of in 24 hours, as usual. The general indication for tar, he says, is a chronic catarrhal inflammation of the mucous passages of the respiratory or urinary tract, as bronchitis, vesical catarrh, gleet, &c.



CREAM OF TARTAR.

AT the Romsey Police Court, on January 9, 1880, before E. Godfrey (chairman) and Charles Dyett, Mr. William Blissett, chemist and druggist, Romsey, was charged under the Sale of Food and Drugs Act, 1875, with "having sold to Edward Kellaway, on December 5, 1879, eream of tartar, mixed with sulphate of barium and tartrate of lime so as to affect injuriously the potency of such drug."

Mr. Glaisyer: I appear for the defendant, instructed by the Secretary of the Chemists' and Druggists' Trade Associ-

ation of Great Britain, and I say not guilty.

Edward Kellaway, Superintendent of the Police for the borough, said: On December 5 last, I visited Mr. Blissett's shop, where I purchased  $1\frac{1}{2}$  oz. of cream of tartar. I told him it was for the public analyst. It was divided into three parts; one part I left with Mr. Blissett, another part I delivered personally to Mr. Angell, the borough analyst, on the same day, and the third part I now produce. On December 16 last I received from Mr. Angell a certificate (produced), which states that the cream of tartar contained tartrate of lime 6 per cent., sulphate of barium very slight traces only, and that tartrate of lime is insoluble, not injurious to health, but is a useless ingredient in cream of

Cross-examined by Mr. Glaisyer: Witness said he was specially appointed under the Act, by both borough and county, but this occasion was summoned by the borough authorities.

Who instructed you to buy eream of tartar?-I don't

know that I need answer that question.

Were you instructed by your chief or by the town council?—Not by the town council. Did not buy cream of

tartar at more than one place.

Why did you eall on Mr. Blissett instead of on some other ruggist? This is the second time, you know, that Mr. Blissett has been brought before the magistrates charged with adulterating his drugs?-Why should I not call on Mr.

Why call on Mr. Blisset only ?-If Mr. Blissett had not

supplied me I should have gone somewhere else.

Did the public analyst instruct you to purchase ercam of tartar?-No. Received the analyst's certificate himself. Did not issue the summons without reference to anyone else, but declined to say who gave instructions for the summons to be issued Considered that the certificate had been before a person competent to judge of the constituents of the drug in question. The public analyst did not give instructions for this prosecution. Asked for cream of tartar only. Did not himself know what the constituents of cream of tar ar were.

Mr. Glaisyer: Will you call the analyst, if you please.

The Magistrate's Clerk: That is for you to do.

Mr. Glaisyer: I beg your pardon. The 21st section of the Act enacts, "At the hearing of the information in such proceedings the production of the certificate of the analyst shall be sufficient cyidence of the facts therein stated, unless the defendant shall require that the analyst shall be called as a witness." Unless the defendant shall require that the analyst shall be called his (the analyst's) certificate shall be sufficient. I gave notice by letter to the inspector that the defendant required the analyst to be called as a witness.

The Magistrate's Clerk: You required him to be present,

and he is here.

Mr. Glaisyer: Then I require the prosecution to call him as a witness, otherwise I submit their case is not complete.

Mr. Angell: Before I am sworn I should like to make a remark. Something has been said about calling the analyst

as a witness, and I should like to know, with due respect to the bench, who guarantees my fees and the cost of my attendance here to-day for the purpose of giving evidence? Mr. Glaisyer: I have nothing to say on that question.

Chairman of the Bench: On the part of the defendant you have given notice that you would require the analyst to be present.

Mr. Glaisyer: I have given notice that I should require that the analyst should be called as a witness, but-

Chairman of the Bench: I presume, then, that will carry expenses?

Magistrate's Clerk: The Act distinctly says so.

Mr. Glaisyer: That is not so. The section from which I have already quoted clearly states that the analyst's certificate shall be sufficient cvidence unless the defendant requires the analyst to be called as a witness. The defendant did require the analyst to be called as a witness.

Chairman of the Bench: It appears to me, from that, that the defendant must pay the analyst's expenses. The certificate is sufficient for the bench.

Mr. Glaisyer: I submit that it is necessary for the purpose of this prosecution that the analyst should be called by them as a witness, as the defendant has required him to be called, and consequently the analyst's certificate is not "sufficient evidence" of the facts therein stated.

Mr. Angell went into the witness box.

Mr. Glaisyer: I have not called Mr. Angell at my witness. Magistrate's Clerk: You have given notice that he must be here.

Mr. Glaisyer: I should be glad to know whether the bench considers the case of the prosecution is complete without their having put the analyst in the box, I, on the part of the defendant, having given notice that the defendant would require that the analyst should be ealled as a witness?

Magistratc' Clerk: You have taken a step under the Act which you were entitled to do; you have given notice to make us bring the analyst bere; that being so, you must of

course pay the expenses.

Chairman of the Bench: We think the defendant is liable for the analyst's fees and expenses.

Mr. Glaisyer: Then may we have that as a point of law clearly stated?

Magistrates' Clerk: No; I think not. Mr. Angell asked a question, and the magistrates have decided it.

Mr. Glaisyer: I am not prepared to call Mr. Angell as my witness.

Mr. Angell: I distinctly refuse to give evidence unless my

expenses and fees are guaranteed. Mr. Glaisyer: Then I submit the ease for the prosecution is incomplete, and that I have no ease to answer as it now

stands. Magistrates Clerk: The analyst says he will give evidence

if you pay him. Mr. Glaisyer: The prosecution have put him in the box. Magistrates' Clerk: That is not so.

Mr. Glaisyer: But Mr. Angell is in the box. Magistrates' Clerk: You bave called him.

Mr. Glaisyer: I have not called him.

Magistrates' Clerk: Then stand down, Mr. Angell. [Mr. Angell here left the witness box.]

Mr. Glaisyer: As my elient's character as a chemist and druggist is at stake, I feel that I must go on with the case to prove his innocence of the charge brought against him, and to enable me to do this, I will guarantee Mr. Angell's fecs. Mr. Angell again went into the box, and was sworn.

Mr. Glaisyer: Have the prosecution any questions to ask?

Superintendent Kellaway: Not a word.

Mr. Glaisyer then examined the witness, who said he was public analyst for Hants and for this borough. His special knowledge of the constituents of drugs was what he had gained in his career. He had never been in the drug trade, nor had he studied at any pharmaceutical school. His knowledge was simply that of a chemist. He did not recommend a prosecution in this ease, and had never recommended that prosecutions should be instituted under this Act. not allowed to give an opinion. Had in some instances suggested articles to be purchased for analysis, cream of tartar, amongst other things. In the sample on which this presecution was based he analysed it. The only foreign materials he had found present were the 6 per cent, of tartrate of lime and a very slight trace of sulphate of barium.

Let us have the whole of the constituents, if you please?

-They are stated in my certificate.

Your certificate refers to tartrate of lime and sulphate of barium only. How did you ascertain there was any cream of tartar in the drug you analysed, if you did not try to find out what was properly present ?- Because upon ignition I could see it was a tartrate. We are not supposed to search all through the organic acids in an analysis of this description.

But how did you know it was cream of tartar at all?-

From its appearance and flavour.

I want to know how you knew it was cream of tartar?-I think I have said I found it was a soluble tartrate.

That is not sufficient?-Iknew by its flavour that it was

acid tartrate of potash.

Did you judge solely by flavour what it was ?—You have

a chemist there, and -

Answer my question, if you please ?- I tested for acid, and found that it was acid to test paper.

Then you consider that was enough to prove the presence

of cream of tartar?—That and other tests.

What other tests? Tell me how you ascertained it was cream of tartar at all?-There were no special tests put directly for cream of tartar.

Then you didn't apply any special test for cream of tartar?—There is no test for cream of tartar.

You say you found 6 per cent. of tartrate of lime present?

How did you arrive at that result ?-By the usual process

of analysis.

Give details, please !- The substance was weighed out in the usual way-dissolved in hydrochloric acid, the solution filtered, separated from a trace of barium sulphate, neutralised, precipitated with oxalate of ammonia, filtered, ignited, weighed as oxalate of calcium, the precipitate dissolved and converted into sulphate and weighed as such-the mean of the two taken.

Now you say you found traces of barium. How did you find that?—In the ordinary way by decomposition and pre-

cipitation with sulphuric acid.

Can you give me details both as to tests and quantities found ?-I employed no special test except that of microscopical examination, I should not like to swear it was barium sulphate.

That is very important, because in your certificate you charge this man with having sold sulphate of barium mixed with his cream of tartar? How did you test for this barium?—Its insolubility in acids and its granular and opaque appearance under the microscope. It was only a very slight trace.

Is that the only substance insoluble in acids which might be present in cream of tartar? -No; but it is the only substance which would pass examination under the microscope

as well.

You say in your certificate that neither the lime nor the barium are injurious !- Not in the quantity the sample contains.

Is cream of tartar used as medicine, do you know? -Yes, I do know; but simply from reading in books, and so forth, I have no real knowledge on that point.

How is it obtained ?- From argol.

What is argol?—Argol is the crude precipitate from wine

during fermentation.

What is the chemical name for that precipitate? -It is not a chemical, it is not chemically pure, it is acid tartrate of potash with lime and sometimes barium, at least all samples of argol I have ever tested contain some lime. Did not know where the tartrate of lime came from, presumed it was mixed in to affect fermentation. Did not know where the barium came from. The lime would not be in the juice of the grape to the extent of the percentage in this sample. Should think not more than 1 per cent. might be there. Was not conversant with the process of manufacture of cream of tartar, but believed the argol was boiled in water and concentrated, probably filtered, the colouring matter precipitated in some way and the ordinary process of crystallisation brought about by concentration.

Had tested 15 or 16 samples of cream of tartar. Had met with none that did not contain tartrate of lime in variable quantities. Had looked for lime in wine and found it. It was a common practice with makers of wine to lime them. Had never tested grape juice, but had sufficient knowledge of such natural products to know that no great quantity of lime could be present in the natural juice of the grape.

Witness: Might I be allowed to make a statement which will justify me in giving the certificate I have given. I have no means whatever of putting before the justification of my position. I am in a most invidious position, almost that of a public prosecutor, and I don't like to leave the box without making a statement.

Magistrate's Clerk: I think you may make any statement

you like.

Mr. Glaisyer: Any statement by the analyst should have been made before his cross-examination.

Mr. Angell: I don't consider I have been giving evidence on behalf of the prosecution.

Mr. Glaisyer: Then please say no more on my behalf. I want nothing further from you.

Chairman of the Bench: You are brought here by the defendant.

Mr. Glaisyer: I want nothing further from him. This case is brought under the 6th Section of the Sale of Food and Drugs Act, which states "No persou shall, except for the purpose of compounding as hereinafter described, mix colour, stain, or powder, or order, or permit any other person to mix colour, stain, or powder, any drug with any ingredient or material so as to affect injuriously the quality or potency of such drug, with intent that the same may be sold in that state, and no person shall sell any such drug," &c. Therefore you see that the defendant is charged with having sold cream of tartar mixed with sulphate of barium and tartrate of lime, so as to affect injuriously its potency. I am prepared to prove, if necessary, that no barium was present, and also that the tartrate of lime found in the sample is an essential constituent of cream of tartar, and that cream of tartar, as such, does necessarily contain uncertain proportions of tartrate of lime, but necessarily some; and the public analyst has stated, in his own evidence, that no sample of cream of tartar which has been submitted to him has been free from tartrate of lime. The process which he has described as that for the production of cream of tartar is substantially correct. The crystals are deposited from the must of the wine when the aqueous liquid changes to a spirituous liquid, that deposit is dissolved in water by boiling, and the scum on this boiling liquid, the cream, is skimmed off, and that when it is crystallised is cream of tartar, and that cream of tartar coutains, as a necessary constituent, a certain quantity of tartrate of lime, varying according to the countries from which it is imported-varying very considerably. The defendant, whom I shall call before you, will state that he purchased the cream of tartar from which the sample supplied to Superintendent Kellaway was taken from a most respectable house-indeed, one of the leading firms of wholesale druggists in the country-Messrs. Hearon, Squire & Francis. Mr. Squire, who is in attendance here, will tell you that the cream of tartar was imported by his firm, and by them it was simply ground and sent out; and Professor Attfield, whom I shall call, Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, analysed a sealed sample of this cream of tartar, and he will tell you that the tartrate of lime which he found in that sample is a natural constituent of all cream of tartar, and further that no trace of barium was present. While I am upon the subject I may say that the public analyst states that the very slight traces of barium, which he said were found by him in this sample were wholly innocuous. Upon these facts being proved, I shall ask you to dismiss the case if you even think now it is necessary for me to go further.

Mr. William Blissett gave evidence that he had sold the article as received from Messrs. Hearon, Squire & Francis.

Mr. William Squire said his firm buy cream of tartar sometimes on the market, but generally import it from Bordeaux. They always analyse what they buy. Tartrate of lime is invariably present in greater or smaller proportions. Witness had known cream of tartar to contain as much as 11 or 12 per cent. of tartrate of lime, but had never sold any containing so large a proportion. This sample contained 6 per cent., but no trace of barium. lime is one of the natural constituents of the juice of the grape, and is not in any way added to the cream of tartar as an adulterant. Had never yet seen a sample of cream of tartar without tartrate of lime.

Mr. Dyett: You say you have never seen cream of tartar without tartrate of lime?—I will go further than that. It is utterly impossible to obtain the ordinary cream of tartar without it. You may go to any shop in the kingdom, and you will not find one sample of commercial cream of tartar that does not contain some proportion of tartrate of lime.

Professor Attfield: Had frequently analysed cream of tartar during the past twenty-five years. Cream of tartar is made from tartar. Tartar is the name of a substance deposited naturally from winc. Tartar is contained in the crust of port wine bottles; it is chiefly deposited in the manufacture of the wine. The tartar is a natural constituent of the juice of the grapes from which the winc is made. Had examined pure grape juice pressed by himself from grapes, and found lime in that juice. Moreover, books by standard authors state that tartrate of lime is contained in grape juice. For instance, in a book on chemistry by Gmelin, English translation, vol. 10 (there are eighteen volumes of this work), page 287, under the head of Tartrate of Lime, appears this sentence—" Tartrate of lime occurs in many plants, especially in grapes, and mixes with the tartar." Tartar is in solution in the juice of the grape, but is deposited as a solid from the wine; that is because it is insoluble in the spirit of the wine, produced in the course of fermentation. From that crude tartar cream of tartar is made. The crude tartar is boiled with water, and the cream of tartar separates out from the clear hot liquor. That cream of tartar still contains the tartrate of lime of the grape juice. Had analysed hundreds of samples of cream of tartar, which all contained tartrate of lime. Books by standard authors also state that cream of tartar contains tartrate of lime, as for instance, in the book already quoted (page 276), it states that the crude tartar contains tartrate of lime, the purified tartar constantly containing tartrate of lime to the amount according to Vauquelin of 5 to 7 per cent., sometimes according to Duflos even of 16 per cent. Therefore (the witness continued) I say that cream of tartar is essentially and naturally a mixture of acid tartrate of potash and tartrate of lime. Pure acid of tartrate of potash is some. times called cream of tartar, but on the other hand cream of tartar is not necessarily acid tartrate of potash, nor even, according to the "British Pharmacopæia," is cream of tartar pure acid tartrate of potash. Had examined a sealed sample of the cream of tartar before the bench. And as regards the presence of tartrate of lime confirmed what had been stated by the public analyst, but differed from him entirely in the conclusions he had drawn from the analysis. Considered the article analysed to be cream of tartar-pure cream of tartar. There was no trace of sulphate of barium present, and having heard the evidence of the public analyst considered his tests did not prove the presence of any trace of sulphate of barium. Had tested for the barium.

Magistrates' Clerk: We shall take your evidence for what

it is worth, of course.

Mr. Glaisyer: Certainly you will, and it is worth a great deal.

Professor Attfield (continuing): I tested for the barium chemically, and also by the microscope and by the spectroscope, and I thus proved the entire absence of barium.

Cross-examined by Superintendent Kellaway: What is the standard book by which you prove the purity of drugs?—
There is no book that is a standard for the purity of all

Don't you admit that the "Pharmacopæia" is an authority.

—It is one of the best authorities, but only one of many.

Mr. Angell: May I cross-examine the witness.

Chairman of the Bench: I think you may; you see, Mr. Glaisyer, Mr. Kellaway is only superiutendent of police.

Mr. Glaisyer: I will raise no objection, but really the prosecution should have instructed a competent advocate to conduct their case.

Mr. Angell: In the characters and tests for the purity of cream of tartar given in the "British Pharmacopœia" there occurs this paragraph:—"and when neutralised by ammonia is rendered slightly turbid by oxalic acid?"—That statement does occur in the "British Pharmacopœia."

Does not a slight turbidity indicate a slight contamina-

tion with lime?—That depends on the quantity you employ, and what you understand by the word slight.

What would you understand on reading this paragraph, by "slight turbidity?"—As a chemist, from that I can only infer that lime is an admitted constituent of cream of tartar.

I want your opinion, and value it very much on this point, as to whether on reading slight turbidity in the "British Pharmacopœia" you do not understand that the contamination with lime is also slight, independent of the quantity operated upon. Do you or do you not understand that the words slight turbidity mean that the contamination is slight?—I read the word slight in that paragraph in connection with the quantity taken.

Then the quantity taken is of no importance?—I say that all I am told there is this, that lime in a slight quantity is an officially-recognised constituent of cream of tartar.

And do you consider that 6 per cent. of dry tartrate of lime would produce a slight turbidity only?—The test relates to lime, and not to tartrate of lime. I repeat that my reading of that test is this only: that lime is a natural constituent of cream of tartar.

I agree with you that lime is a natural constituent in cream of tartar. You are Professor of Practical Chemistry, you have told us, to the Pharmaceutical Society?—I am.

Does not the Pharmaceutical Society issue the "British Pharmacopœia"?—Certainly not. That "Pharmacopœia" is written to guide medical men—

I have been misinformed on that point, then. We as public analysts want to know where we are to go for our standard, and I am simply trying to substantiate something that may be useful to public analysts. Did you find an insoluble residue when you examined the cream of tartar in question?—By which process do you refer to?

Did you by any means find any insoluble residue?—When boiling it with strong acid there was a very slight residue.

What did you do with that residue?—I examined it by the spectroscope, and I found that it was not barium. It was silica. I am of opinion that what the public analyst thought was sulphate of barium was silica.

Did you rely entirely on the spectroscope, then?—No; I relied on chemical evidence and microscopical evidence, combined with the spectroscopical evidence.

What was your chemical test which proved to you that it-was silica, and not barium?—That the residue was soluble in hydrofluoric acid.

That would prove it was silica, undoubtedly. You have told the Bench that you found lime in grape juice?—I have. In natural grape juice?—Yes.

When you expressed the juice from the grapes, did you crush the seeds with it?—I did not.

How much lime did you find ?—I did not examine it quantitatively.

Was there enough there to weigh?—Yes; but I did not trouble to weigh it. I could have ascertained very easily.

Then it does not by any mean prove that in gream of

Then it does not by any means prove that in cream of tartar there might be as much as 6 per cent. of tartrate of lime?—It proves there might be as much, or less, or more.

Mr. Glaisyer: The examination of the grape juice was not for the purpose of this particular case.

Professor Attfield: No; it was made months ago.

Mr. Glaisyer: Do the bench think it necessary for me to address them.

Chairman of the Bench: I think not.

The Magistrates retired, and, after a short interval, reentered the court, when the Chairman said: The Magistrates have carefully considered this case, and have decided to dismiss the summons, but without costs.

Mr. Glaisyer: I really must appeal to you to reconsider your decision as to costs, and I submit there are several reasons for doing so. In the first place the charge against the defendant has not been maintained, but is proved to have been utterly groundless and frivolous. Again, this is the second time he has been brought before you within the last 18 months on a frivolous charge which the prosecution could not maintain. The defence in these cases involves a heavy expense which, under the circumstances, should be borne by the prosecution, and I may remark that the costs would not have to be paid by Superintendent Kellaway, but would be paid by the county fund; and yet, again, the same question has quite lately been tried in your county, indeed, within a very few miles of this borough, and the summons

was then dismissed in a case where the drug contained still more tartrate of lime than is found in the present instance, and since that decision the prosecution has had ample time to retire from the present proceedings. Under all these circumstances I must press for some costs to be awarded.

Chairman of the Bench: We have fully considered the

matter, and cannot alter our decision.

At the Fareham Petty Sessions on December 23, William Octavius Smith, chemist and druggist, of Titchfield, was summoned for selling cream of tartar, which was not of the

nature, substance, and quality demanded.

Police-sergeant Duke deposed that on November 14 he purchased a quarter of a pound of cream of tartar at the defendant's shop, and then told the defendant that it was for the purpose of having it analysed. It was divided into three portions, each of which was sealed. One portion was given to the defendant, another retained, and the third forwarded to Arthur Angell, public analyst for the county. He reported that the sample contained tartrate of lime, 9.26 per cent, and sulphate of barium, 0.29; that these substances

were insoluble, and were not injurious to health.

Mr. Smith, the defendant, said he was a registered chemist and had succeeded this year to the business of a chemist and druggist at Titchfield, for some time carried on by Mr. Chitty. He found that Mr. Chitty was in the habit of getting his drugs from the wholesale house of Barron, Squire & Co., and knowing that firm by name as one of the first houses in the trade, he continued to get all his drugs from it. He produced an invoice from Messrs. Barron, Squire & Co. of a parcel of drugs, including some cream of tartar. This cream of tartar was passed into stock in the condition in which it was received, and he had sold it with the greatest confidence. He had sent the sealed sample given him by the police-sergeant to Dr. Paul for the purpose of having it analysed.

Dr. B. H. Paul had analysed the sample of cream of tartar sent him by the defendant, and found that it contained 6.95 per cent. of dry tartrate of lime and 0.3 per cent. of sulphate of barium. The remainder consisted of bitartrate of potash. He had never met with cream of tartar free from tartrate of lime. That sold by defendant was a very good commercial sample. The difference in his analysis and that made by the public analyst was probably due to the circumstance that the latter had returned the amount of tartrate of lime as containing water, whereas he had returned it as perfectly dry. The sulphate of barium was not injurious; it was

absolutely insoluble.

Mr. Frederick Barron, of the firm of Barron, Squire & Co., stated that he had supplied the shop now occupied by Mr. Smith for about sixteen years. The cream of tartar which he sent to Mr. Smith was of the first commercial quality. It was the highest-priced article of its kind in the market. The crystals were purchased from the brokers, and nothing whatever was done to them beyond crushing them.

At this stage one of the magistrates interposed and said

they were all agreed to dismiss the case.

Mr. Granger, who appeared for the defence, then made an application for costs. He said it was surely never the intention of the Act that respectable tradesmen should be brought up in the way the defendant had been. It was a very serious matter, for upon the quality of a chemist's drugs his success and reputation depended. He thought it a case where the magistrates might exercise their right to dismiss it with costs.

Mr. Flux, solicitor, who watched the case on behalf of the Pharmaceutical Society of Great Britain, asked to be allowed to say a few words on the question of costs. There had been several cases similar to the present, each in its turn dismissed, and he was anxious that the society should be able to say that a case had been dismissed with costs. It might be deemed expedient that representations should be made to a central authority with a view to the prevention of similar attacks on the qualities of drugs sold by chemists. The character of a chemist's drugs should be as far above suspicion and as carefully guarded as the personal reputation of anyone should be, and when the qualities of articles sold by a chemist were called in question, he must remain exposed to the suspicions of friends and neighbours, or call upon such gentlemen as were present to attend at great inconvenience and expense to properly support him before the magistrates. As he (Mr. Flux)

read the statute, the costs, if awarded to the defendant, wou'd not have to be borne by the policeman who had acted in regard to the purchase, but would fall upon the county, and the dismissal with costs was especially desirable.

The magistrates consulted, and said that upon principle they would allow costs, but that some limit should be put to them, and they therefore fixed the amount at three guineas.

#### HARRISON r. YOUNG.

In the Chancery Division of the High Court of Justice on December 18, a motion was made for the appointment of a receiver and manager of the business of a chemist and druggist, at Bow, Stratford. There were disputes between the partners, and allegations as to the appropriation of certain funds of the firm. It was asked that the appointment of receiver be referred to themselves.

Mr. Pearson, Q.C., for the plaintiff; Mr. Buckley for the

defendant.

The Vice-Chancellor said that he would at once appoint the receiver and manager as asked.

Order accordingly.

## Pharmacy.

#### ETHERISED COD-LIVER OIL.

HAGER proposes the following formula:-

A similar preparation has been found very useful by American physicians in bronchial complaints, and can be taken by patients who reject the oil in any other form.

#### BALSAM SALICYLICO-BENZOINATUM.

The following compound is suggested in the *Pharm*, *Centralhalle* as a cheap and useful substitute for balsam of Peru in veterinary practice. It has been found very healing in small wounds and excertations, and may be applied direct:—

Ta	ke of				Parts
	Siam benzoin crushe	1	 	 	100
	Black pitch		 	 	15
	Salicylie aeld		 	 	10
	Gurjnn balsam		 	 	40
	Absolute alcohol		 	 	500

Digest for some hours with frequent stirring, then let the sediment settle. Decant and strain the liquid, and transfer to a water bath for a short time. On cooling dilute the residue with absolute alcohol to the consistence of a thin syrup.

#### FERRUM REDUCTUM.

In the Archiv der Pharmacie (December, 1879) Dr. Vulpius, of Heidelberg, summarises the various methods hitherto recommended for the estimation of reduced iron, and comments on the several difficulties and practical inconveniences of conducting the examination properly, and finally gives a method which he has devised. It is as follows. Dissolve 5 grammes of sulphate of copper in 25 grammes of water. The sulphate contains 1.271 grammes of copper. To the solution add I gramme of the reduced iron to be tested and 2 drops of dilute sulphuric acid (1 to 5), and let the whole remain in a small glass flask for about an hour, shaking frequently until the action is finished. Then filter from the separated copper and the black oxide of iron into another previously dried and exactly tared glass flask, of about 75 cc. capacity, and wash with distilled water until 50 grammes of filtrate are obtained. To this add 1 gramme of perfectly pure iron powder, or, if this cannot be had, take the purest at hand, which may, as a rule, be estimated to contain 1 per cent. of carbon, which will be allowed for. After standing about an hour at a moderate heat, the copper has all separated, and the solution has changed from a blue to a pale green colour, in consequence of the sulphate of copper being

changed to sulphate of iron. Then add 5 grammes of pure concentrated sulphuric acid, and heat gradually to the boilingpoint, by which, with an active evolution of hydrogen, all the excess of iron is dissolved, and only the finely-divided copper, with the slight contamination of the carbon of the iron, remains. This settles very quickly, and may be washed by several additions of water until the decanted liquid no longer eauses a precipitate with chloride of barium. The flask should then be filled consecutively with spirit, absolute alcohol, and ether, and the liquids poured away again. After washing with ether hold the flask with its contents for a few minutes in the steam from a boiler, and then place it for a few minutes in boiling water. Then, as quickly as possible, so that the copper may not oxidise, transfer it to a balance and obtain the weight of the copper. Deduct one centigramme for the carbon of the added iron, subtract the remainder from 1.271, that is from the copper contained in the original 5 grammes of sulphate, and calculate how much iron corresponds with this last remainder. The quantity so obtained in centigrammes may be expressed as the percentage of metallic iron in the tested ferrum

Dr. Vulpius gives several calculations actually performed, to illustrate the calculation. Thus:—

- a. Ordinary commercial ferrum reductum.
- b. Another specimen of ditto.
- e. Ferrum reductum puriss, said to be 90 per cent.
- d. A mixture of 3 parts of powdered iron and 2 parts of black exide of iron.

	a.	<i>b</i> .	c.	d.
Copper first added	1.271	1.271	1.271	1.271
Copper not reduced by the ferrum reductum after deduction of 1 centigramme for carbon	0.601	0.578	0.278	0.592
Consequent weight of copper reduced by the ferrum reductum	0.667	0-693	0.993	0.679

The equivalent proportions of iron would be

o. 0 589	Indicating o	fn	netallic iron	in	the	tested	ferrum	Per cent.
b. 0.612	reductum		• • • • • • • • • • • • • • • • • • • •	• •		**		58 9
c. 0.877	"	17	,,		,,	27		61.2
d. 0 599	11	**	19		*1			87.7
0.000	17	"	. "		"	"		59 9

#### OPODELDOC MADE FROM DIALYSED SOAP.

In the Pharm. Centralhalle (No. 43, 1879) Dieterich remarks that the continually recurring complaints of crystals in spodeldoc, no matter what kind of soap had been used, led him to try the preparation of a dialysed soap, and with that he has obtained excellent results. He makes a thick solution of soap (1 part of soap with 2 parts of water), and hangs it in a parchment bag in hot water for two days. The remaining soap solution, which is now quite colourless, is steamed, dried, and granulated by rubbing through a coarse sieve. The soap thus obtained is quite white, but cannot be finely powdered. For the preparation of opodeldoc he recommends 7 parts of oil soap, 14 parts of tallow soap, and 330 parts of alcohol. It is preferable to dialyse the oil soap with the tallow soap, as the former alone is too greasy after dialysis; or dialysed stearing soap, in the proportion of 16 parts to 320 of alcohol. The alcohol thus prepared remains clear and colourless in all circumstances, and has a good consistence. Berg adds to the foregoing that it is preferable to use the spirituous solution of ammonia rather than the aqueous, as ordered in the pharmacopæia.

# GREGORY'S POWDER. By William Gilmour.

In the early part of November last I read a short paper before one of the evening meetings at Edinburgh on "Gregory's Powder," with more particular reference to a peculiar property which was occasionally developed in it of nonmiscibility with water. The history of that paper was

shortly this: that for a considerable time complaints had been frequent regarding the non-miscibility of the Gregory; that the commencement of these complaints dated from a period at which a "Baker's" sieve had been employed in preparing the powder; and lastly, that a long series of observations demonstrated that the sieve had directly to do with the non-miscibility, inasmuch as one portion of the powder passing through a "Baker's" sieve was found to be non-miscible, while another portion of the same powder passing through an ordinary sieve was, on the contrary, found to be quite miscible. At the meeting referred to there was abundant proof that this phenomenon of non-miscibility of Gregory's powder had been, and still continued to be, a source of annoyance to many, and this, I may add, has also been confirmed from many other sources and in various other directions since. Unfortunately, whilst there is this unanimous testimony to the existence of the evil, there is not the same unanimity in ascribing its eause. Some have blamed one thing and some another, and these conflicting opinions have at least brought out this fact, that this property of non-miscibility is not peculiar to the use of a Baker's" sieve alone, but may, and does, exist apart altogether from its use. Under these circumstances, I thought further investigation absolutely necessary, and in carrying it out I endeavoured to begin where the expressed opinion and experience seemed to converge. Some, for example, directly traced the beginning of their trouble to a change in the kind (maker) of magnesia used in making the Gregory, or to the mode in which it was received into stock, as, for instance, being received in bottles instead of in bulk. In such cases an examination of the magnesia as to whether it contained any trace of carbonate or any excess of moisture would doubtless have thrown some light on the question. Others, again (see also back numbers of THE CHEMIST AND DRUGGIST and Pharmaceutical Journal), openly advocated the substitution of the carbonate for the calcined magnesia, on the plea that it formed a Gregory's powder readily miseible with water. Here, I thought, we had the matter brought to a direct issue, and in saying this I did not ignore, but rather brought before my mind as corollary evidence, other experiences still, such as damping the edges of the sieve through which the Gregory was passing (correspondent in *Pharmaceutical Journal*), as also my own experiments on different powders, such as exposing them to heat and exposing them to the air, performed before reading the paper referred to.

The carbonate of magnesia, it appears, makes a powder readily miscible with water, and it does so, we may assume, from one of two reasons, namely, that being a carbonate it is molecularly different from the calcined (and therefore not to be compared with it) or, what is much more probable, that not being a pure carbonate, but a mixture of earbonate with hydrate of magnesia, the water which it contains has something to do with its miscibility. Assuming this last theory, and keeping in mind that calcined magnesia will attract from 12 to 20 per cent. of moisture in passing from the caustic to the slaked condition without absorbing carbonic acid in a corresponding degree (Mialhe), I thought I had in all these circumstances a pretty strong indication of the lines on which any further experiments should be conducted. Choosing, then, a magnesia which I knew, from various experiments, could produce a non-miscible Gregory, I carefully dried it by lengthened exposure to heat, and found it lost 5 per cent. in weight. This same magnesia. exposed to the action of the atmosphere in a plain covered box, gained from 3 to 7 per cent. in weight after several days' exposure, the gain being determined by the state of the atmosphere, the length of exposure, and the carefulness with which it was packed. To determine the increase more accurately I put 6 oz. of the same magnesia in a thick pastebeard box, carefully lined and covered, and placed it in a room where there was no fire, and which was, though not damp, freely exposed to the air, and it gained, in two days' exposure, 2·3 per cent. This was done on two days of the milder weather succeeding the late severe frost, so that the atmosphere might then be more likely to be laden with moisture than it may be on some other occasions. This magnesia I made into Gregory, passing it in the ordinary way through a hair sieve, and it made a beautiful lightcoloured Gregory, which mixed readily with water without the use of the stirring rod, by simply giving the vessel a

gentle circular motion with the hand. Next taking another portion of the original unexposed magnesia, and making it into Gregory by passing it through the same sieve and in the same way as in the previous case, it made a powder in no way differing from the other in appearance, but not quite so miselble, although not objectionably unmiscible. Exposing a portion of this Gregory to a gentle heat for some time, I found it lost 6 per cent. in weight, and was converted into an aggravated form of the non-miseible, the least agitation of the liquid on attempting to mix it raising a froth, on the surface of which the powder floated. I thought this conclusive, but keeping in mind the objection which had been raised as to the heat acting on the resin of the ginger, and possibly affecting the miscibility of the powder through it, I put aside a weighed portion of the same Gregory, and kept it exposed for a whole day to a dry atmosphere and a temperature ranging from 70° to 80°, and found it lost close on 3 per cent., and was converted into a non-miscible of the less marked type. I have no doubt had it been exposed for some time longer it would have turned out as incorrigible a specimen as that exposed to the more direct heat. This, I think, not only proved that the resin of the ginger had nothing to do with the miseibility or non miseibility of the Gregory, but it proved most eonclusively also, I think, that the percentage of moisture contained in the different powders composing the Gregory was the primary cause affecting it. In confirmation of this I had one or two different specimens of rhubarb powders, some, comparatively speaking, dry and beautifully light in colour, and others darker and apparently containing more moisture, made into Gregory, with the same magnesia as in the other experiments, and the former all made Gregory more or less non-miscible, while with the latter there was no trouble whatever. I might mention other experiments still, but I think I have shown conclusively in these the eause of the non-miseibility. If the magnesia contain a eertain proportion of moisture (as shown in the foregoing experiments, only a small proportion is required), or even should the magnesia be comparatively free from moisture, if the rhubarb or ginger contain sufficient to yield up a certain portion to the magnesia, a miscible Gregory will be the result. The conflicting elements here brought into operation being at first sight somewhat obscure, probably accounts for much of the perplexity and variety of opinion exhibited on this subject by those who have been troubled by this peculiar behaviour of Gregory. Those who have never been troubled with it may now be constrained to examine their magnesia, and ascertain to what extent it has become hydrated, and probably also they may give at the same time some indication as to how they have been in the habit of buying it -whether in bulk or bottle, &c.

One word before concluding, regarding the "Baker's" sieve. I have disearded altogether its use in making the Gregory, as I find it develops a non-miscible where it otherwise need not have existed, and where it does exist it always considerably aggravates it. Whether this is owing to the development of heat by friction, or—as I was at first inclined to think—owing to a granulation of the powders in passing through the sieve, I have not been able to determine.

#### NOTE ON PROOF AND RECTIFIED SPIRIT.

In an official capacity we have had frequent oecasion to put the question, "What is proof spirit?" It eannot be said that we have ever got a very satisfactory answer to the question, so far, at least, as the technicalities and niceties of the subject are concerned. Putting all that aside, however, for the present, we wish to call attention to what there is reason to believe, from the answers received, is the prevailing mode of procedure in converting rectified spirit into proof. There is little reason to think that the old plan of half and half is much in fashion nowadays; but, on the contrary, there is every reason to assert that in the majority of instances the proof spirit is made extemporaneous. That is to say, the rectified spirit is reduced for immediate use, and in doing so it appears that one of the two following plans is adopted: namely, the reetified spirit is first measured, and water is then added to it, in the same measured glass, in the proportion of 5 to 3; or the rectified spirit is first measured and added to the tineture or other preparation being made, and afterwards the water is added, the same proportions being observed as in the previous instance. It need searcely be pointed out that in neither case is a correct result obtained, as, in the first instance, there will neither be a proof spirit nor a correct measure, and in the second, though there may be a proper proof spirit there eannot be a correct measure. Quite apparently the Pharmaeopæia anticipated that proof spirit would be an article kept in stock, and not prepared extemporaneously when required, else it would surely have provided against the chance of error, as it does in the ease notably of the dilute acids, where provision is made both for the condensation of the mixed liquids and the expansion from heat generated in mixing. The Pharmacopæia directions are simply-Rectified spirits, 5 pints; distilled water, 3 pints. Mix. Test-Specific gravity 0.920.

Now, as the rectified spirit is described as of specific gravity 0.838, corresponding to 56 per cent. over proof, it clearly follows that there is provision here made for condensation to the extent of 4 fluid ounces, else both the percentage of spirit and the specific gravity would be wrong. The Pharmacopeia is correct, as anyone may prove, and the only way to get a proper proof spirit is either to keep it previously mixed, from which it may again be measured out as required, or allow for the loss from condensation to the extent of half an ounce per pint. In any case the plan is not to measure 5 of the one and then 3 of the other in the expectation that 5 and 3 make 8.

Another prolific source of error (and this is the one to which it was our intention more immediately to refer) is the very general use of a rectified spirit some degrees over standard. A strength commonly in use is, we believe, something approaching to or even in excess of 60 over proof instead of 56. Spirit invoiced 60 per cent, we have occasionally found under, but more frequently over that mark, sometimes ranging to the extent of 62 and even 64 over proof, this arising, we presume, from being the first of a fresh stock. Now it need seareely be pointed out that it is as easy to bring a spirit of 69 per cent. or 62 per cent. to proof standard as one at 56, if the fact is kept in mind that for each 100 parts of spirit water sufficient be added to make the whole measure when the temperature once more reaches 60° Fahr., 100 and a number more corresponding to the over proof of the spirit. Thus if the spirit was 60 per cent., the proportions would be 100 parts of spirit and water sufficient to make the whole measure 160; if it were 62 per eent., then it would be water sufficient to make the whole measure 162, and so on.

The condensation, &c., varies with the strength of spirit used; thus the Pharmacopæia process for proof-spirit may be freely translated:—

30 fl. oz. spirit, of specific gravity '838, and 18 oz. water yiell 46; fl. oz. spirit of specific gravity '920.

Whereas a spirit of '830 and '825 would read respectively 30 ft, oz. spirit of specific gravity 820 and 191 oz. water, yield 48 ft. oz. spirit of specific gravity '919 and

30 fl. oz. spirit of specific gravity \*825 and 21½ oz. water yields 50 fl. oz spirit of specific gravity \*922.

An equally necessary, but much more delicate operation, is reducing a rectified spirit which is thus over to proper standard. It may be of some assistance to those who have paid but little attention to the subject to give some indication of the amount of dilution necessary in such a case. A spirit which is 61.5 over proof requires for each 25 fl. oz. 1\frac{1}{4} oz. water to reduce it to 56 over proof, and one which is 60 per cent, requires 1 oz. water for the same proportion of spirit. In each case the condensation is as near as possible one per cent.

By many this minuteness of detail may be considered unnecessary and excessive, and this probably explains also why deviations from the standard are apparently so common. If we mistake not, however, it contains within it the explanation of many a dispensing difficulty, for it not infrequently happens that the different elements of a prescription are so nicely balanced that one of the ingredients a little under or over spirit strength will make all the difference betwixt an elegant or inelegant mixture—in other words, betwixt one properly or not properly dispensed.

5.

## PRICES FOR 1879.

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71 PER CENT. FOR CASH.

5 PER CENT. ON QUARTERLY ACCOUNTS.

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THE "PERFECTED" COD LIVER OIL. See page 10.

#### MACKENZIE'S COMPOUND COD LIVER OIL EMULSION

Renders Cod Liver Oil agreeable for Invalids and Children.

Recommended extensively by leading Physicians and Surgeons

PREFARED ONLY BY

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Sold in Bottles 2s., 3s. 6d., and 6s. each.

London Wholesale Agents—EDWARDS & SON, BARCLAY & SON and SANGER & SON.

EXTRACT OF MALT. See page 11.

# STEDMAN'S TEETHING POWDERS.

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A GOOD MARKET FOR COD LIVER OIL | See 5.

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IMPROVED JUJUBES (PATENT). See page 11.

CHEAP AND GOOD COD LIVER OIL } See 5



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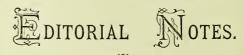
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CARRIAGE PAID COD LIVER OIL } See page



FRY'S MALTED CHOCOLATE PASTE. See page 11.

MAY & BAKER. ( SPECIAL NOTICE, page 2.



#### THE ELECTRIC LIGHT.

THE announcement has again been made that Mr. Edison has accomplished the task which he set himself some time ago, of making the electric light available for general uses. The *Times* Correspondent, telegraphing on December 28, stated that he had spent a day and a night with Mr. Edison, and had convinced himself of the complete success of his system. About 60 lights were burning at Menlo Park. They could be regulated with the greatest case; gave out no heat; did not flicker; and cost about one penny for an amount of light equivalent to a thousand feet of gas.

Subsequent accounts give more detailed notices of Mr. Edison's latest arrangements. After numberless experiments, he has found that the carbon residue of cardboard furnishes the most perfect substance for producing incandescent electricity. His method is to punch eardboard into miniature horseshoes about 2 inches long and 1 inch wide. A number of these strips, separated by tissue paper, are put in an iron mould and exposed to great heat until the volatile portions of the paper are driven off. Then they are attached to a wire from the generating machine, and fitted in a lamp. By an improved air-pump the air is exhausted from these lamps to the millionth of an atmosphere. The globe is sealed, and the lamp is ready for use. The lamps, he reckons, cost about 1s. each to make. Every area of about half a mile would require its central generating machine, and each generating machine would supply about 50 lamps. A new generating machine has been devised, and also a new meter, which in

dicates the consumption by the quantity of copper deposited by the current in an electrolytic cell.

An interesting addition to the history is made in some of the recent American journals. It is stated that, by giving day and night continuously to his investigations, Mr. Edison had injured his nervous system, and become a prey to neuralgia. His doctor did him no good; so he experimented upon combinations of chemicals until he obtained one, "a slight application of which to the face immediately relieved his pain." Incredulous of his own success, he bribed a rheumatic tramp who came begging to Menlo Park to become the subject of further experiments. At the end of a week the mau's rheumatism and neuralgia had disappeared, and all the vagabond's sores were healed. When he was dismissed, the wanderer spread the news, and from far and near the afflicted now come to Edison for a remedy, which he has called "Polyform."

#### THE "MACTEAR" DIAMONDS.

THERE is at least a chance that the year now opening may be distinguished in chemical history, as the year in which the oft-indulged dream of the manufacture of artificial diamonds shall have been accomplished. Mr. James Mactear, of the St. Rollox Chemical Works, Glasgow, claims to have commenced the solution of the problem after working at it for 13 years. At least, what he claims is, that he has crystallised carbon, and that his crystals so prepared possess the extraordinary hardness characteristic of the natural stone. Soon after the announcement had been circulated a letter appeared in the Times, somewhat flippantly, but very authoritatively, blowing away Mr. Mactear's assumptions. The letter was signed by Professor Nevil Story Maskelyne, the principal of the mineralogical department at the British Museum. The Professor said he had received some specimens of Mr. Mactear's products from that gentleman himself, and he recorded the results of his examination of them. The so-called diamonds were very minute particles, and could hardly be called anything better than dust. To selected particles three tests were applied. First, a few grains were placed between surfaces of sapphire and topaz. The grains were worked into a powder, but neither the sapphire nor the topaz was scratched. Next a ray of polarised light was passed through some partieles mounted ou a microscopic slide, and in every case the light was doubly refracted, which should not be the case with crystals of the cubic system to which the diamond belongs. The third test, however, was the most conclusive—exposing some of the particles to the heat of a table blowpipe on platinum foil they could not be consumed. Larger particles of true diamond, tested at the same time, were readily burned under the same eonditions. From each and all of these tests Professor Maskelyne concluded that the particles were not carbon and were not diamond. Finally, he put a few of them into some hydrofluoric acid in a platinum capsule, and let them stand for the night. In the morning they had disappeared. The Professor therefore very confidently affirmed that Mr. Mactear's diamonds were some crystallised silicates. added, however, by way of encouragement, that no scientific mind could doubt that the problem of the manufacture of diamonds would ultimately be solved.

So the matter stood when the year closed. But Mr. Mactear was as obstinate as his own diamonds under Professor Maskelyne's blowpipe. Writing to the *Times* on January 1 he asked for a suspension of judgment, and soon after came up to London and experimented for two days with Professor Maskelyne in his laboratory. A letter in the *Times* of January 8 from the latter gentleman told how successful he

had been. The Professor wrote this time in a much more subdued tone. He still declared that his previous resul's were correct so far as concerned the particles on which he had experimented; but the material produced was a mixture, and other portions of it "differ in properties, and still require investigation." He "believed" that a portion bore out Mr. Mactear's claim that it would scratch topaz and sapphire. He had, however, no evidence as yet of the existence of crystalline carbon in this dust. With this letter appeared certain certificates from diamond merchants and others, who testified that some of Mr. Mactear's particles had engraved rubies, sapphires, an amethyst, and a cairngorm, and had scratched the face of a veritable diamond.

If Mr. Mactear has got so far he will probably get further. His experiments will certainly be watched with interest, and in some quarters even with anxiety. It is, however, a question of some curiosity whether in the event of complete success he would be entitled to the esteem or the execration of his fellow-creatures. Clearly, if his diamonds could be manufactured with moderate ease, a vast amount of what we now look on as wealth would be simply annihilated as such. Whether any equivalent benefit would be conferred on the world by the discovery is a question which will not, we hope, disturb his future experiments.

In last week's Chemical News Mr. Crookes reports that Mr. Mactear has sent him specimens of his "diamonds," and has also explained to him "the whole process by which he obtains such remarkable results." This process, however, is not now published, as it will probably be made known first to the Royal Society in a week or two. Mr. Crookes has uot made any chemical experiments with Mr. Mactear's particles, but he finds that they possess a very singular property which he some time ago found, in its extent, peculiar to the diamond. It is that in high vacua molecular rays cause brilliant phosphorescence. The Mactear diamonds in this respect most closely resemble Brazilian diamonds. In appearance they resemble natural diamonds which have been partly burut away by the blowpipe, and Mr. Crookes, therefore, thinks it "not unlikely, from their mode of preparation, that these crystals have undergone partial combustion after their formation."

#### CROWN SERVANTS AND CO-OPERATIVE STORES.

A CORRESPONDENT of the Daily News informs that journal that the Lords Commissioners of Her Majesty's Treasury have issued a minute addressed to all the Government clerks and servants, requesting to be informed (and leaving room for the information on the circular note) as to whether they are engaged in any mercantile or other profitable employment of any kind whatsoever after the expiration of their usual office hours. On the replies stating affirmatively the nature of the after-office hours' cecupation, the employés are requested to select either the employment of the Government in toto, or resign their appointments. The result in one department of the Government has been that several clerks who were discovered to be engaged in a dual capacity have been compelled to resign one or the other, according to choice. Any servant of the Crown who now employs his time in either the Army and Navy Stores, the Civil Service Stores, or any other stores, during office hours or afterwards, will be compelled to relinquish the same, on pain upon refusal of dismissal from Her Majesty's service. If this be true, the Government have simply performed an act of justice, noue the less just, be it remarked, even though it may have been suggested, as has been alleged, by elections earing policy.

#### TWILIGHT.

WHEN the Pharmaceutical Council with only one dissentient voice resolved to throw their meetings open to reporters, it was to be supposed that they wished to be reported. Acting on that assumption, and believing that our services would be welcome, we made application and sent a reporter. The conditions under which admission was granted were such that an intelligible report under the circumstances would be impossible. They implied besides a deep-rooted suspicion of us, and an immense estimation of the vast importance of the most trivial word uttered in those chambers, with a too slender foundation for either theory. We do not complain that our reporter had to keep "trotting in and out of the room," as one of the council expressed it, because we are aware that nothing in the shape of insult was intended. But we must wonder why, if we are as dangerous as we seem to be, the Council could not take the simple manly course of declining to admit us at all. The loss would have been theirs, not ours.

# A SOCIETY OF SPECIALISTS IN FRANCE.

A SOCIETY of the principle specialist physicians and pharmaciens has been formed in France for the defence of the interests of specialism in general. They have undertaken to draw up a new law on the subject, which will soon be presented to the Chambers of Legislature. All persons interested in the subject, or having special information, are invited to co-operate. The address of the secretariat is 24 rue Rodier, Paris.

#### ANGELLIC PHARMACY.

Two prosecutions of chemists in Hampshire for selling cream of tartar of as fine quality as they could buy have been dismissed during the past month. Both prosecutions have been undertaken on the certificates of the same analyst, Mr. Arthur Angell, and both were utterly unjustifiable. Mr. Glaisyer's cross examination of Mr. Angell at Romsey enables us to form a pretty clear narrative of that gentleman's proceedings in regard to cream of tartar. He did not recommend the prosecutions; that was not his business; but he did sometimes suggest the purchase of certain articles. He had but vague ideas about the process of manufacture of eream of tartar; he knew that tartrate of lime was always present in it to some extent; he knew nothing of pharmaey except what he had obtained from books, and he can hardly claim to have studied the subject in that manner with any excessive amount of eare. Even hisehemical tests for sulphate of barium were flatly challenged in open Court by Professor Attfield. And yet the law practically entrusts the reputation of half the tradesmen in Hampshire to this gentleman. The matter would not have been so bad if it had not been for the special circumstances. Defeated conclusively at Fareham on December 23, there does not seem to have been the slightest indication of a wish to withdraw from an almost exactly similar ease at Romsey, on January 9, 1880. Now, if rate-payers have to contribute smartly for Mr. Angell's education, they might at least expect that his lessons would be properly learned. The art of never admitting a defeat may be a useful accomplishment among soldiers, but it is a fatal defect in a man who assumes anything approaching judicial functions.

The glaring injustice of prosecuting a tradesman on a frivolous charge, on the certificate of an official who admits his own deficiency in the matter of pharmaceutical knowledge, and thereby risking that tradesman's reputation, and perhaps his living, in such a light-hearted way as the system is adopted now-a-days is obvious. But it is accentuated when the magistrates, as in the Romsey case, "having fully considered" the case, inflict on the defendant the penalty of having to pay his own costs. They dared not find him guilty. Mr. Angell himself would hardly have urged them to do that after the evidence; but on what principle of morality or common sense, can they force on him the expense of proving his own innocence?

#### THE CHEMISTS' BALL.

On Wednesday next, January 21, as the hour approaches when churchyards yawn and graves give up their dead, there will gather at Willis's Rooms the annual assembly of graceful chemists, with their lovely spouses, daughters, sisters, eousins, and aunts. Neither bad trade, bad weather, nor cooperative stores have yet proved strong enough to check the success of this popular gathering, and those who are capable of judging assure us that neither the nobility nor the licensed victuallers, neither Royalty nor Oddfellows, can surpass in manly glory and feminine beauty the dazzling erowd which constitutes the Chemists' Ball. Light fantastic frieuds will not miss the opportunity.

#### THE NEW REGISTRAR-GENERAL.

THE Government have made a signal blunder in filling up the vacancy eaused by the retirement of Major Graham from the office of Registrar-General. Dr. William Farr, F.R.S., as Superintendent of the Statistical Department of that office, has so ably organised his work that the English Registry returns have, through his labours, provided the basis for much valuable legislation, and have served as a model for all civilised countries. It was with a shock of surprise that the announcement was received that Sir Brydges Henniker, Mr. Sclater Booth's private secretary, has received the appointment. Dr. Farr has spent 40 years in the office, and has really made it what it is, and nine-tenths of the public believed him to be the actual Registrar-General. To put over his head a man who can have no special ability for the duty is a piece of stupidity so perfectly finished off as to risc into the region of art. We are glad to see that Dr. Farr has with excellent temper resigned his post-he could have done no less-though we must sincerely regret that the country should be deprived of his services, especially within a year of the new census, which would have been the fourth which Dr. Farr has organised.

#### POISONING BY ACONITE ROOT,

On Christmas Day, at Brokley Farm, near Malmesbury, Mr. Lloyd, a farmer, with his wife and eldest daughter, was poisoned by eating aconite root in mistake for horseradish. Mrs. Lloyd soon succumbed, and the other patients, to whom emetics were administered, remained for some time in a precarious state.

Cases in which this mistake has been made are so rare, and the roots are so different in appearance that they have been regarded with a certain amount of incredulity.

Pereira has minutely described a case in which a Mr. Prescott, of City Road, London, with his wife and child, all died from the effects of such a mistake (February 5, 1837). Another case was reported in the *Times* of November 4, 1842; a third in the same journal of November 10, 1853, in which the patient was a Mr. Joseph Russell, of Chard, Somerset, who died from the effects of the blunder while visiting his brother at Bristol.

In a letter to the Liverpool Mercury, on the Malmesbury asc, James Fraser mentions an instance which occurred ather more than twenty years ago, when Mr. McRenzie and wo friends were poisoned in a similar manner at Dingwall, K.B. After this melancholy event, he says, aconitum was condemned from the garden to the rubbish heap, and as a good many of these heaps were not fenced off, the result was the death in many cases of valuable cattle and pigs. These accidents occurred, as might be expected, when the dants were without foliage.

In the Journal de Chimie Médicale, for May, 1868, p. 248, a ase is related in which a family of five, living on Mont Blanc, were poisoned by a salad containing aconite leaves, rathered by the mother in mistake for celery. Two persons lied.

In the *Pharmacographia*, 1st ed., p. 8, is a paragraph bearing euriously on this subject. "One of the most remarkable facts in the history" of *Aconitum napellus* "is that in certain localities its poisonous qualities are not developed, and it is so entirely innocuous that it is used as a potherb! This was pointed out as long ago as 1671, by Martin Bernard, an eminent Polish physician and botanist, and was confirmed by Linnæus, so far as relates to Lapland, where the young shoots of one species are cooked and aten. It is still more strange to find that while in certain districts of Northern India the roots are collected as a poison, there are others in which the same roots are eaten as a pleasant tonic." C. D. Schroff, however, has shown 1875) that the innocuous aconites are probably specifically distinct from the poisonous.

The distinctions between the roots of aconite and horseadish are so obvious that it seems hardly necessary to point hem out. In 1856 they formed the subject of an excellent paper by Professor Redwood, who arranged the following parallel between the roots:—

#### MONKSHOOD.

Conical in form, and tapering perceptibly to a point.

Coffee coloured, or more or less prownish externally.

Odour merely earthy.

Taste at first bitter, but afterwards producing a disagreeable ingling and numbness.

#### Horseradish.

Slightly conical at the crown, then cylindrical, or nearly so, and almost of the same thickness for many inches,

White or with a yellow tinge.

Olour specially developed upon scraping, when it is very pungent and irritating.

Bitter or sweet, according to circumstances, and very pungent.

To this may be added that the scrapings of aconite are riable or easily broken, and become yellowish or pinkish after a short exposure, while the scrapings of horseradish are tough and stringy, and do not alter in colour.

In 1856, Dr. F. W. Headland published a pamphlet on Poisoning by the Root of Aconitum Napellus," in which he recommended animal charcoal as an antidote. This, however, cannot be relied on, and the treatment must be contined to evacuants and restoratives.

#### DENTAL INDIGNATION.

or the fair and broad view which in its editorial columns has been taken concerning the chemists and druggists whose names appear on the Dentists' Register. This temper has been maintained in the face of the legal opinions, and the flood of violent letters which have appeared in the correspondence section of the same journal. In the issue for December 15 the editor remarks in reviewing the events of the year, that the appearance of the "Register" was "the

signal for a great outery of indignation from the dentists, at the appearance of sundry names thereon, and a corresponding outburst of defiance from those who were objected to. Of this subject we had more than enough in our pages, and seeing that the same arguments are repeated over and over again, ad nauseam, we trust that the British Dental Association will lose no time in testing the question if they mean to do so at all; though we have reason to believe that that bedy will be found, when brought to action, to have considerably modified their exclusive intentions, in view of the defiant attitude of their opponents, which has gone so far as to bring forth the threat of a trado combination of the chemists against them, with a view of testing the question.'

"We are by no means so regardless of our position as dentists as to set up as advocates of the chemist per se, but we are strong advocates of that regard for existing rights, a loud profession of which before the passing of the Aet alone enabled it to get through Parliament; and it is as advocates also of consistency and honesty that we now deprecate trying to kick down the ladder by which we have risen."

#### QUIS CUSTODIET CUSTODES?

The College of Preceptors is charged with the examination of pharmaceutical Preliminary students. What have they to say to this?

Mr. Thomas Marshall, of Charlotte Street, Fitzroy Square, writing to the *Times*, says:—A few days since I received a midwife's certificate with the letters "M.R.C.P." written after the signature. Not being aware that women are admitted as members of the Royal College of Physicians, I wrote for an explanation, and received the enclosed reply to-day. I copy it *verbatim et literatim* for the information of your readers:—

"Dear Sir,—I simply signed my Educational tital. I am a meber of the Royal Colledge of Preceptors.—Yours respectfully,——."

#### PATENT MEDICINES IN SWITZER-LAND.

PATENT medicines are evidently entering on a bad time on the Continent, if not in England. They are the modern representatives of the Jews of the middle ages, or the Christians of the early centuries. Persecution of them is glorified in the medical journals, especially on the Continent, as a virtue. For all this they flourish. In Germany where their sale is prohibited by law, the stupidest remedial swindles are popular. In Russia a paternal Government watches at the gates of entry for them, and prohibits all but a favoured few. That these are selected with any serious discrimination it would be an insult to pretend. All sorts of precautions are taken in France against dangers resulting from unofficial combinations, and yet Paris is the centre of a trade in them of enormous proportions, in the benefit of which Spain, Italy, Belgium, Holland, Turkey, and Austria chiefly share. A vigorous attempt is now being made to keep them out of Switzerland. A Bill has been introduced into the Swiss Federal Assembly which prohibits the sale or advertisement of secret or special medicines which contain poisonous or very active substances, or of which the price is out of proportion to the value of the ingredients, or if the advertisement shall be injurious to public morality, or if the medicines are recommended for acute diseases. A commission of competent men is to be appointed to decide what are the specialties which fall under either of the named sections. Penalties of 20 francs to 200 francs are imposed, and publishers of journals are to be held responsible for advertisements of interdicted remedies in their pages.

#### DR. HAGER ON NOSTRUMS.

READERS of our "Secret Medicines" page will not need to be told of the services which Dr. Hager has rendered to the profession and the public by his exposure of great numbers of worthless swindles. He is, it appears, however, half disposed to regard his pains as so much labour lost. A pharmaeist in Chicago wrote to him on the subject, and a reply from the veteran analyst has been published in the Pharmacist. Hager says :-

"The analysis of nostrums no longer constitutes my principal occupation. Formerly, I wasted considerable time in these investigations; the public, however, will not be warned; mundus rult decipi, decipiatur.

"In Germany the traffic in proprietary medicines is prohibited by law, but continues to flourish in spite of the same, because any person may undertake to heal the siek as long as he refrains from acting as a licensed practitioner; it is these people who privately distribute their nostrums, and are but seldom brought to account.

"Our laws are framed by the House of Representatives composed of men who generally know very little of practical life, but who are ever riding principles. Let me instance the so-called Progressive party, of which I was a member myself at one time, which clings to its principles in a manner bordering on lunacy. We may thank the Lord that Bismarek, the wisest of them all, figures only with given eonditions. If he were no more I verily believe the Progressive party would inscribe its banner, 'Ignorance and idiocy are also entitled to consideration!'

"Notwithstanding the sale of nostrums is prohibited, any scoundrel may follow the trade of a curer of humanity. When a dupe of such a quaek refuses to pay the (sometimes exorbitant) bill, he brings suit, and the honest judge will decide in favour of the latter. Cases of this nature have been reported from Southern Germany more than once. This will give you an insight into our affairs."



## Literary Notes.

Modern Household Medicine. By Charles Robert Fleury, M.D., L.R.C.P., &c. London: Gould & Son.

This is a book of over 600 pages, in which all the usual diseases and emergencies are plainly discussed, and simple directions as to the diet, management, and medical treatment are given. The author bases his medical treatment on the homœopathic pharmacopæia, but he does not indulge in fantastic experiments with the infinitesimals. Generally he prescribes the mother tinctures, and the highest dilution he ever goes to is the third decimal, that is, one per thousand. A moderate homocopath generally begins with the third centesimal, or one per million. It will be such practice as is here indicated that will give to homocopathy its fair chance as a theory of medicine. Some of the most advanced members of the altopathic school have paid a limited homage to the doctrine of similia similibus curantur, and almost universally doses have been attenuated; but it is ridiculous to insist, as extravagant homeopathists have often done, that no one has a moral right to nibble at their theories without swallowing the entire animal. Ringer, Phillips, and others may surely choose medicines on the similia principle, and even reduce their doses, without wishing to be regarded as advocates of the absurdities which the chief professors of homeopathy glory in, and which have become associated with their work. Allopaths are decidedly levelling down, and as homocopaths level up the distinction in alphabetic order. A far clearer idea of the subject would

will gradually die away, and patients will get such benefit as may exist in the work which the latter have done. Dr. Fleury does not confine his medical recommendations to homeopathic remedies. For instance, he advises salicylate of soda in 10, 15, or 20 grain doses, in acute rheumatism, phosphate of quinine (1-grain doses), and Fowler's solution (2-drop doses) in neuralgic headache, iodide of potassium (5-grain doses) in asthma, and so on. It will thus be seen that this work is free from the objection which is felt against many of its elass, of being written with a prejudiced view and with a partisan object. The general information and the invalid's dietary, the latter being taken from Dr. Ringer's "Therapeutics," are both useful sections.

Money. By James Platt. London: Simpkin, Marshall & Co. 1s.

MR. PLATT, the author of "Business" and "Morality," has published another treatise in the same style as his previous essays. Taking "Money" for his text on this oecasion, he has given us a really valuable and intelligible discussion of the various questions included in the dis e tations on currer cy. He has studied carefully, and drawn freely from the works of eminent economists, and he has skilfully moulded his materials into a series of chapters, the titles of which will indicate the interesting character of his work. Among these may be named "The Origin of Money," "Gold Money,"
"Silver Money," "Paper Money," "Bills of Exchange,"
"Banking," "Exchange," "Interest," "Wealth," "Capital,"
"Panics," "Individual Success," "National Prosperity." The author constantly drops into a sermonising groove, but his appeals are of a truly healthy character, and they help rather than hinder the comprehension of the intricacies of the subject. The book teaches, above all things, that money is a tool whereby better things can be obtained and not an ultimate end to be striven for. Anyone will be wiser and stronger for reading it.

Pharmacographia: A History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By Frederick A. Flückiger and Daniel Hanbury. Second edition. London: Macmillan & Co. 1879. 8vo, pp. 20 + 803.

IT was sorry news, some time ago, that the "Pharmacographia" was out of print, and was not likely to be reprinted. We are therefore doubly glad to welcome our old friend grown more corpulent as befits its advancing years.

A new edition of a work like the "Pharmacographia" should correct errors in its predecessor and embody knowledge gained in the interval. Improvement in arrangement and additional features are of course legitimate, but are not demanded. There were no errors to correct, so this part of the editor's task was a sinecure. The body of the second edition contains 68 pages more than the first; the setting of the type is rather less compact; but a few unimportant passages have been omitted and many altered without extending them, so the added information is more than the increased bulk indicates. The experience gained during the construction of the original great work has been used with all due vigilance. Books which no ordinary pharmaeist would dream of opening have yielded their treasures, and no important publication seems to have evaded the author's eye. The new matter has been added like the repairs and ornaments of a fine building rather than as new wings. In most cases it requires close comparison to detect the alterations. Much, perhaps half, of the added matter relates to the history of the drugs; and it seems a satire on the writers and editors of pharmaceutical periodicals that their voluminous labours of five years can be included in 50 or 60 octavo pages. But we are partly consoled on remembering that this book does not embrace all drugs; while at the same time we gain a clear view of the slow, slow growth of knowledge.

A biographic and bibliographic appendix of 50 pages appears in this edition. It gives short accounts of the men who have contributed most to the history of drugs and whose works are oftenest quoted in the historical portions of the book. The object of the appendix is, doubtless, to give a short view of the materials of which this subject is constructed; and this

be furnished by arranging the paragraphs chronologically, and references in the index would serve every purpose of the present arrangement. The appendix is too brief to be a dictionary of biography, so the form it assumes ill suits it.

The index is now in two columns instead of three, but has not been materially extended. It would add much to the value of this work if it were supplied with an index as complete as that provided by Mr. Ince for Hanbury's Science

Papers.

In the first edition a list of errata was not needed, and the printers' errors revealed by constant use do not number half a dozen. The present edition contains a short list of errata, and many not mentioned there are found in the text. The changes in the outward appearance of the book, though few and slight, are not improvements.

When the "Pharmacographia" first appeared, all earlier books were hopelessly superseded. Like Pliny's History of the World, it seems destined to go down to posterity, unless, like Tusser's Husbandry or ancient bibles, it is worn to pieces

by loving fingers.

Hanbury's editorship left on the earlier edition such a charming impress of his own character that subsequent editions cannot hope to entirely supersedeit. We shall always

pore over the first, and refer to later ones.

It is a grand thing for the rising generation of pharmacists that this book exists to attract them, as it surely will, and to influence their intellectual growth. The minute care in the citation of authorities, the self-restraint exhibited in condensing such extended researches within limits so narrow; the simple, elegant, English style, the high regard for truth and sense of the responsibilities of authorship pervading the whole book, must influence students as much as the facts inform them.

Electroplating: A Practical Handbook, including the Practice of Electrotyping. By J. W. Urquhart, C.E. London: Crosby, Lockwood & Co.

THE art of electroplating, which has been carried to a high pitch of perfection, especially of late years, in England, is capable of being followed on a small or large scale, either as an amusement or as a means of livelihood. Mr. Urquhart's book is a very practical one, and furnishes the information necessary either for the amateur or for the workman. He describes the necessary apparatus, the batteries, the cleaning utensils, and, for the sake of completeness, the chief dynamo-clectric machines now generally employed in large plating or electrotyping establishments. He also gives definite instructions for the deposition of eopper, silver, gold, nickel, brass, aluminium, platinum, zinc, and tin. Several methods of silvering by immersion are described in the volume, this ready means being very suitable for small articles, such as buttons, brooches, chains, &c. Incidentally the author gives a good many items of information respecting the artistic working of metals, such as colouring metallic substances, oxidised silver and the like. The book is appropriately bound in apparently electroplated covers, the effect being produced by a metallic paper over the boards.

Chemical Products of Modern Invention, . . . . their Introduction to Medical Science and Examination for Purity, . . . . Distributed for the Use of the Medical Profession and Apothecaries by A. & M. Zimmermann. London: Printed Aug. Siegle. 1879. 16mo, p. 14.

This is a really interesting little ramphlet on chemical products introduced recently into medicine. It refers especially to chemicals made by Schering, Finzelberg, Kolbe, and other German chemists, but it can hardly be called a trade circular, for the preface states that Messrs. Zimmermann do not supply retail dealers, though they will send specimens to any who wish to experiment with their goods. The most distinct feature of the descriptions is the list of tests for purity. These are most stringent. Schering's tannic acid is said to dissolve perfectly clear and almost colourless in water, alcohol, and ether. Chloroform made from Liebreich's chloral hydrate is recommended for administration to ladies, as it causes no derangements of any kind. It is certain that Schering at least, if not other German—chemists, intends that the reputation of his chemicals shall be of the highest class.

The Year-book of Pharmacy. London: Churchill. 1879. 8vo, pp. 567.

The new Year-book contains 60 pages less than its predecessor, but the index, filling in both cases 19 pages, shows that words rather than facts have been reduced in number. The introduction affords the eustomary sketch of the progress of pharmacy during the year ending last Midsummer; our appreciation of the excellence of this report is apt to be dulled by familiarity. Printers' errors are more numerous than they should be. One poor plant, Monninia Polystachia, is called Mouninia Polystachia in the introduction, Monnina Polystachia in the text, and Monninia Polystachia in the index. At the top of page 17 we read that Mr. Holmes has reported on Siberian plants, which will surprise even those familiar with his interesting accounts of Liberian drugs. We must claim for ourselves that we have examined the book in no carping spirit, and these and many other errors have forced themselves on our notice. The abstracts, however, seem to be made thoroughly conscientiously, and cover all the ground allotted to the editor.

#### Piesse's Art of Perfumery.\*

MR. PIESSE cannot be accused of unduly pushing his book before the public or the trade. For years it has been out of print, and has been in frequent demand, so much so among pharmacists that two volumes of it are, we believe, among the stolen treasures of the Pharmaceutical Society—stolen from the Society we mean. The popularity of the work is easily explainable. Mr. Piesse wrote on a subject which he thoroughly understood, and he wisely resolved to make his book a really useful one, rather than a mere trade puff. His candour has no doubt served him as well as an advertisement as reticence would have done.

The history of the art of perfumery is told briefly but pleasantly. Then follows the author's rather curious than valuable theories about a "gamut of odours," arranging a number of distinct odours on a musical scale according to their "intensity." The author seems to claim that odours make an even more marked scale than sounds, for he says: "An experienced perfumer will have 200 odours in his laboratory, and can distinguish every one by name. Could a musician, with an instrument of 200 notes, distinguish and name any note struck, without his seeing the instrument? The query unfortunately upsets the theory. Mr. Piesse proves too much. When we state that in his gamut "camphor" and "almond" correspond to c and D of the treble clef, when we add that "patchouly" and "vanilla," "geranium" and "heliotrope," "lavender" and "peppermint," are respectively next to each other in the scale, it will be seen that the analogy which is so scientifically assumed does not exist at all. The odours ought to glide almost imperceptibly from one to another to justify the notion. A few chords are added as proofs of the correctness of the gamut. We should like to know whether Mr. Piesse first concocted his ehords from his gamut, or whether he did not rather produce his gamut from his previously-existing chords.

After some flower-farming statistics we have clear and well-illustrated descriptions of the various processes adopted in perfumery, and in these sections the author adds to this edition some details of his own experience as a flower-farmer at Mitcham. These might have been even more complete, and would have been welcome.

The materials used in perfumery follow, and the details given are both interesting and useful. The processes for making simple essences are given in this section, and with engaging frankness the "imitation" essences are set out also. The naïveté with which the author quotes Dr. Birdwood's account of the Holy Basil, and then adds his own formula for Piesse & Lubin's perfume of that name, almost suggests the need of adding perfumes to Food and Drugs Act. Some of the suggestions made in this part of the book are worth noting, such as the careful directions given on page 125, for preparing a heliotrope pomade, which might be extended to other plants, and would form a pleasing amusement for many amateur gardeners, and might bring back to us again the era of sweet-scented flowers.

<sup>\* &</sup>quot;The Art of Perfumery." By G. W. Septimus Piesse, Ph.D., F.C.S. Fourth edition. London: Longmans. 21s.

There are many comments we should have wished to have made on this part of the book, but space forbids. The druggist, however, will not fail to find in it many hints of

practical value.

Perhaps the remaining chapters of the book, in which formulæ for bouquets, soaps, pomades, tooth-powders, hairwashes, and the other ornaments of a perfumer's counter will have more general interest. These are given very freely, and Piesse & Lubin's recipe-book is not alone invaded, for we find in the course of the volume guesses at most of the more famous perfumes of the fashionable world.

There has evidently been a minimum of trouble bestowed on this edition of the work, as is evidenced by the retention of the figures in regard to imports and exports (page 233) still standing as for 1860. After wading through them the author coolly intimates that they are of little value now, as the trade is three or four times as great as it was 20 years ago. A table of foreign tariffs of perfumery does seem to have been revised, and is, we hope, more reliable than the table which follows it of foreign monies, in which the German mark is ignored and the Prussian thaler still keeps its place. Another indication of mellowness is the article on page 303 on the "Fountain Finger-ring," which, we are told, "has recently become famous." This should have read, "which, after long being infamous, has recently been forgotten."

Its few defects are, however, more than compensated for by the pleasing cynical humour which plays on each page, the handsome style in which the book has been produced, and chiefly the really useful information which it contains.

THE Lancet has with the new year come out with its pages eut, after allowing all its younger but brisker competitors to precede it in that practice.

Professor Galloway, of Dublin, late lecturer on chemistry at the Dublin Royal College of Science, has prepared materials for a book, the object of which would be to prepare the way for the development of the kelp industry on the coasts of Ireland. He asks, however, for at least 250 subscribers at 10s. each before printing, as that number will only just cover the necessary expenses.

ONE HUNDRED AND SEVENTY-SIX new books and 57 new editions, on medicine, surgery, and the allied sciences, including pharmacy, appeared in England during 1878. During 1879 the new books numbered 136, and the new editions 53. The total number of new books and new editions on all subjects was 5,314 in 1878, and 5,834 in 1879.

AN AMERICAN paper is printed with green ink on white paper, and the British Medical Journal finds this a "great improvement, probably more expensive and troublesome than black, but undoubtedly much more agreeable to the eyes; and though at first sight a little strange, as being an unaccustomed effect, it is, on the whole, not unattractive."

Dr. E. Geissler, of Dresden, is now associated with Dr. Hager in the conduct of the *Pharmaceutische Centralhalle*, the well-known German journal of pharmacy. This valuable journal has been published weekly by Dr. Hager for 20 years, and contains in each number some of those useful practical little paragraphs for which pharmacy is so much indebted to its eminent editor.

WE EXPECTED that the Treatise on Dispensing in our Diary for 1880 would cause a considerable demand for the work, and we therefore printed 500 copies over and above our normal requirements. These were not nearly sufficient to fill our orders, and we are now quite sold out. We shall reprint the Treatise on Dispensing immediately, and will have pleasure in sending a copy to any new subscriber (or to old subscribers as well, of course) who will take the trouble to apply for it. One copy only will be given to each subscriber; additional ones will be charged sixpence. Non-subscribers will not be supplied at any price.

THE Modern Physician and Fumily Adviser, a twopenny monthly journal, addressed to the lay public and edited by Drs. Shuldham and Lade, seems rather an attempt to advertise a few homeopathic and hydropathic coctors than to beneficially illuminate the public. The best bit in the number sent for our review is a paragraph appropriated from THE CHEMIST AND DRUGGIST and not acknowledged.

THE CHEMIST AND DRUGGIST has issued its "Chemists' and Druggists' Diary" for 1880, a copy of which is before its. This volume surpasses any previously issued by our enterprising English contemporary, and while it contains much matter which is of value chiefly to the British chemist or druggist, its pages are also replete with useful information to the pharmacist, wherever he may be.—Oil, Paint, and Drug Reporter (New York).

Messrs. Letts, Son & Co. (Limited) have published a useful blotting-pad for the desk, with a diary for 1880 fixed to the side of the pad. The diary is interleaved with blotting-paper, and bears also on the front a tablet for memoranda of a temporary character, with a pencil attached. This sells for two shillings. Messrs, Letts also offer an enormous variety of other diaries, large and small, cheap and expensive, for business purposes, for ladies, for medical men, and others. In all they publish no less than 156 different diaries. Their "Family Washing-book," "House-keeper's Account-book," and others of a like nature, are invaluable to frugal and methodical mistresses.

We find the following kindly-worded paragraph in the January number of the Homwopathie World:—Few things are more characteristic of the intellectual march of our time than the kind of mental food offered to men following some branch of trade or business. Our readers must have often noticed in this journal extracts from The Chemist and Druggist, which is the organ of the pharmaceutical chemists of Great Britain. At first sight it seems a mere mass of advertisements, but on handling it a little more one becomes aware of the presence of articles of the very highest interest, written for the most part with—brains. Some of the papers evince a catholicity of spirit that is highly creditable, and moreover far in advance of any other allopathic journal. This diary is just the thing for those for whom it is intended. It contains the Pharmacy Aets, 31, 32, and 33 Vict., a directory of London hospitals, and much other useful information.

WE HAVE received a pamphlet entitled "A Few Thoughts on so-called Co-operative Trading, as carried on by the Servants of the Nation," by H. Bowman Spink, Ph.D., M.P.S., "Member of the Board of Works for the Westminster District, a Commissioner of the Free Public Library (Westminster), Chairman of the St. Margaret and St. John's Ratepayers' Protection Association, and Chairman of the Executive Council of the Traders' Defence Association of the United Kingdom." There is no new argument in the pamphlet, and old ones are stated in a not very forcible style. Metaphors are here and there rather amusingly mixed, as when we read about the struggling tradesman being ground into dust, and another phoenix arising from the fire thus thoughtlessly kindled! We have repeatedly urged that the toleration of shopkeeping Civil servants by their masters is a disgraceful piece of injustice. Such conduct would not be permitted by any sane private firm, and we see no reason why Government officials should be treated on a different footing. But we doubt whether tradesmen will care much for Mr. Spink's championship, when we say that he piteously appeals for the "love" and "consideration" of those who were once the tradesman's customers, but who now go to the stores. What the portrait at the commencement of the pamphlet means we do not know. Is it the likeness of the eminent "Ph.D." himself? Surely it is hardly fair to crities to bring before their gaze the threatening aspect of the author of any work on which they are expected to express an impartial opinion.

WE HAVE RECEIVED from R. Friedländer u. Sohn, Berlin, N.W., Carlstrasse 11, some valuable catalogues of books in all languages, classified to a certain extent according to subjects. No. 288, Botany catalogues: History of botany, biographies of botanists, and bibliography; ante-Linnæan botanists; Linné's works; annals and transactions; miscellaneous writings; text-books; genera et systemata plautarum; names of plants (23 entries); illustrations of plants; botanical travels: botanical gardens; economic aud fossil botany. This list fills 48 pages, about 40 titles to a page. No. 291, Phanerogoms; No. 292, Geographia plantarum et flore; No. 293, Physics and chemistry, are equally complete. Messrs, Friedländer have established themselves for 28 years as a central depót for the scientific literature of all times and all nations. They are prepared to make complete collections of literature for any study with the least delay, or to give estimates. Their catalogues will be forwarded to anyone on receipt of a sixpenny English stamp for each one required.

MESSRS. LETTS, SON & Co. (Limited) again publish Captain Saxby's Weather Chart and Almanac (6). Captain Saxby maintains that the ever-changing relative positions of the sun, moon, and earth, causing variations of electric movements, disturb the atmosphere by inter-attractive influence. He has in past times foretold several specially high tides, and his system seems founded on scientific observations. The fault of it seems to be that the predictions are too universal. It would be eurious if atmospherie disturbances should not occur in some part of the world to justify each prediction, and we do not see that the theory sufficiently indicates the locality. It is, however, quite certain that his predictions made a year in advance are at least as trustworthy as those of the Meteorological Office made only a few hours forward. It may be of interest to state that for the month of January, according to Captain Saxby, atmospheric disturbances may be looked for on the 3rd, 16th, 23rd, and 30th. From the 9th to the 13th he prophesics heavy gales and bad weather, and on the 13th a "very high tide."

THE "CHEMISTS' AND DRUGGISTS' DIARY," in addition to the usual trade notes and memoranda, coutains a novel feature in the form of a well-written article, extending over twelve elosely-printed quarto pages, on the art of dispensing, the work of several different authors, each of them specially eonversant with some particular branch of the subject. Contributions have also been levied on the well-known works of Procter, Parrish, and Lescher, the Pharmaceutical Journal, and THE CHEMIST AND DRUGGIST. We cousequently have, so to speak, an eclectic essay on this important subject. The article seems very ably put together, and its general style presupposes a high standard of scientific education on the part of the student. The other articles are ou the "Price of Medicines," by the late Daniel Hanbury, "Copyright in Designs," "Saturation Tables," Abbreviations, and French and German words used in prescriptions, and a Posological Table. By the way, in glaneing over the table of Abbreviations used in Prescriptions we find that "A" has eight different meanings, "M" eleven, "P" twelve, and "S" no less than fifteen. Surely the sooner such abbreviations are entirely done away with the less chance will there be of physicians' prescriptions becoming possible death-warrants.—Chemical News.

SPRAINS TREATED BY HOT WATER.—Dr. Brinton (Philadelphia Medical Reporter) says that to treat sprains the injured limb should be placed in the water, and boiling water be slowly added until the highest endurable temperature be reached. The limb is to be retained in the water a quarter of an hour, when the pain will have gradually disappeared.

DR. ERLENMEYER thinks he has discovered why Hebrew and some other Semitie languages were always written from left to right instead of from right to left. He believes it originated in general left-handedness in writing, and he bases his belief on a passage in the "Talmud," which enjoins that certain inscriptions of prayer should be written with the right hand only.



#### EUCHLORINE DISINFECTANT.

A NEW disinfectant, devised by Dr. Archer Farr, Medical Officer of Health for Lambeth, is now being brought under the notice of the public and the medical profession. It is sold in two separate bottles, No. 1 and No. 2. No. 1 seems to be a rather strong permanganate solution; No. 2 is apparently an acetous solution of chloride of iron. By mixing together a small quantity of each considerable effervescence takes place, accompanied by an easily regulated evolution of chlorine, or, as it is claimed, of euchlorine, a combination of chlorine with oxygen. After the air of a room has been deodorised by this means the residue forms a useful disinfectant for drains or water-closets. It is evident that several of the most esteemed disinfectants are combined in this preparation, which will probably attain popularity. Mr. W. T. White, Kennington Road, is the wholesale agent.

#### ELDER-FLOWER COSMETICS.

WE have received from Messrs. Wheeler & Co., of Southend, specimens of two new cosme ics called respectively Elder-flower Jelly and Elder-flower and Rose Jelly. They are rather a cream than a jelly, and are perfectly emulsified, and very agreeably perfumed. Whether elder-flowers possess indeed the emollient virtues which Messrs. Wheeler and "Dr. Hunter," whom they quote, attribute to them we cannot say; for centuries they have been used as beautifiers by fine ladies; and these preparations have at least the advantage of being free from the greasiness of cold cream and the stickiness of glycerine, and they are very tastefully put up.

### CLINICAL THERMOMETERS WITH MAGNIFIED INDEX.

MESSRS. F. DARTON & Co., of St. John Street, West Smithfield, have made an important improvement in the clinical thermometers for which they are already celebrated. The mercury tube constituting the thermometer proper is literally about the breadth of a hair, and the index is, of course, correspondingly minute. It is, therefore, a matter of some difficulty to read off the indication. Messrs. F. Darton & Co. have entirely obviated this objection by simply surrounding the mercury tube with magnifying glass, so that with no increase of size the thermometer is several times more distinct.

#### THE AUDIPHONE.

This is an American invention which promises to be a great boon to most deaf people, and which will enable sounds to reach the anditory nerve  $vi\hat{a}$  the teeth instead of  $vi\hat{a}$  the ears. The instrument is simply a thin plate of vulcanized rubber shaped like a Japanese fau. When in use it is curved, to give it the requisite tension, by means of cords attached to the outer edge of the fan, and fastened at the junction of the handle. When the top of the fan is placed against the upper teeth the impinging sound-waves create a sensible vibration which is conveyed through the teeth and the bones of the face (or possibly by the deutal nerves) to the auditory nerve. With a little practice the sounds thus received are interpreted the same as if they reached the nerves of hearing

through the ear; and thus the deaf are made to hear more or less distinctly, provided, of course, that the auditory nerve itself is not defective.

#### GALVANO-ELECTRIC TOOTH-BRUSHES.

UNDER the title of Dr. Lincoln's Galvano-Electric Toothbrushes, Messrs. George Salter & Co., of Red Lion Square, have brought out a tooth-brush in which a great deal of trouble has been taken to secure whatever benefits electricity is prepared to bestow. In the handle a small disc of copper and another of zinc are fitted, and small wires lead from these through the grooves in which the bristles are fastened. It is assumed that the bristles being tubular a circuit will be established when the brush is wet and in use. We should certainly hesitate to controvert the theory, and, indeed, like the public generally, are disposed to believe anything or everything of the powers of the mysterious force of electricity. Messrs. Salter have adopted a new method of fastening their bristles, which, under the title of the "grip," they apply to all the best qualities of their manufacture.

#### DIALYSED PHARMACEUTICAL PREPARATIONS.

WE have received a sample of the Liq. Opii Dialysatus which Messrs. Corbyn, Stacey & Co. have prepared for some time past, and to the title of which they claim an exclusive right. This preparation is a solution of the crystalline principles of opium, and is free from extractive, resinous, waxy, and caoutchouc substances. The makers guarantee a constant proportion of morphia, and they assert that opium in this form does not produce constipation, headache, nor stomach disturbance.

We have also received from Messrs. Savory & Moore samples of Ext. Opii Liquidum Dialysatum, Liq. Belladonnæ Dialysatus, and Liq. Cinchonæ Dialysatus. It will thus be seen that the process of dialysis is extending in the practice of pharmacy, and may possibly prove a useful means in some cases of freeing useful medicines from disagreeable flavours associated with inert substances. Of course medical experiment will limit and appreciate the value of these particular preparations. In Messrs. Savory's Liq. Cinch. Dialysat. there is a singular after-tastc of coffee.

#### Medical Gleanings.

PROTECTION OF SURGICAL INSTRUMENTS FROM RUST.— The Medical Times quotes from the Indian Medical Gazette some correspondence which has passed between the Home and Indian Governments on this subject. Rangoon oil, which was strongly advised in India, has proved a failure. Tincture of benzoin, which is so commonly used in hospitals and dispensaries, is not even alluded to—probably from expense and instability. Boiled Lucca and linseed oils, with the addition of acetate of lead or lead filings, are more or less successful, but have no distinct advantage. It is rather disconcerting to learn that, after all the inquiry and science, strained mutton fat is most to be trusted. It would have been satisfactory to learn that science could protect the metal from future oxidation during manufacture. What has become of that discovery, now nearly three years old, by which steel was to be protected from any possible rust by having its surface not coated, but chemically altered by exposure to super-heated (1,200°) steam? For the present all cutting instruments are to have a coating of mutton fat, and blunt ones are to be nickel-plated. Cases are no longer to have velvet linings.

SUGAR AND TEETH.—The Medical Journal of Charleston, S.C., thus stated the conclusions of M. Lerez:—"1. Refined sugar injures teeth—either by immediate contact, or by gas developed in the stomach. 2. That a tooth soaked in sugar-water becomes jelly-like, from the sugar combining with the lime of the tooth."

LADY DOCTORS.—Mrs. Chaplin Ayrton, wife of the Professor of Applied Physics at the City and Guilds of London Institute, and Mrs. Marshall, sister-in-law of Mrs. Garrett Anderson, have lately obtained the degree of M.D. at Paris. Both ladies commenced their medical studies in Edinburgh, but being refused examination there, they were compelled to re-commence their course in Paris, with the result just indicated.

Dental Caries.—M. Maurel, at a recent meeting of the Société de Biologie, in Paris, communicated the result of his obervations on caries of the teeth. He ascribes this affection to the effect of acidity, the absence of salts in certain kinds of water, and to ethnical influences. He has studied the disease in different races, and found that among the Ethiopians the proportion of decayed teeth is 1 to 4; among the Europeans, 1 to 9; and among the Coolies, 1 to 52.—Am. Journal Dental Science.

THE MEDICAL OBITUARY of the past few weeks includes several well-known names:—

Thomas Hunt, F.R.C.S., the well-known author of treatises on the diseases of the skin. He died at Herne Bay on November 26, at the age of 81. Besides medical works, Mr. Hunt had published several biographies and works of a religious tendency.

Dr. Hermann Freund, of Finsbury Circus, died on December 29, at his residence in Finsbury Circus. He was an Austrian by birth and education, and it is mainly to his efforts that the poor Germans in London owe the great benefit of the German Hospital at Dalston.

J. Soelberg Wells, M.D., F.R.C.S., died at Cannes on December 2, at the early age of 43. He was Professor of Ophthalmology at King's College, and Ophthalmic Surgeon to King's College Hospital. He was German by birth, and in his early years was assistant to Von Graefe, who influenced his medical studies in the direction of ophthalmology.

Mr. James Long, F.R.C.S., one of the best-known practitioners in Liverpool, died on December 20 at the age of 70. He had adopted an Abernethian brusqueness in his manner towards patients, and this, together with much painstaking perseverance in the cases which he took up, secured for him a reputation as a consultant which was special in the Liverpool district.

Dr. Wm. Budd died on the 9th inst. at Clevedon. He was the author of the researches into the nature of typhoid fever, which Professor Tyndal so warmly eulogised at the Pharmaceutical Society's dinner last May. He more than any man contributed to the knowledge of the nature of the contagion of this disease, and his work on the subject is a monument of careful investigation. His studies extended over 30 years. In 1873 he published a narrative of his investigations, and almost immediately after his health broke down. His illness was followed by paralysis, and his subsequent life was spent with his family in retirement.

Mr. Henry Hancock, F.R.C.S., long connected with the Charing Cross Hospital, and one of the most popular surgical lecturers in the London medical schools, died of icterus on New Year's Day. He was president of the College of Surgeons in 1872, and had occupied many of the dignified positions of the profession. He retired a few years ago from active practice, and was then appointed consulting surgeon to Charing Cross Hospital.

FROZEN MEDICINES.—Dr. Edwyn Andrew, of New York, finds that many drugs can be given with superior advantage by first freezing them. Antiseptic, astringent, anti-emetic, and nauseous medicines come under this head, and can be combined with ice without difficulty. An especially good feature of this plan is in its affording a possibility of the stomach's retaining medicines; which it would reject when given in ordinary ways.

TREATMENT OF TAPEWORM WITH SALICYLIC ACID.—A German journal reports two cases of speedy expulsion of tapeworm by the administration of 12-grain doses of salicylic acid every hour until a drachm was taken. Castor oil was given on the day preceding. In both cases the worm was passed whole, with the head. No unpleasant symptoms followed the treatment.

ADVENTURES OF THREE FALSE TEETH.—A French medical journal relates the following little incident, the foundation of which is referred to Strasburg, while the Medicinische Woehenschrift of Berlin is originally responsible for the publication of the story. In that journal Dr. Sonnenburg tells how a patient of his one night swallowed three false teeth along with their guttapercha base. The author tell; us that when he was called in the indigestible meal had arrived at about the fourth or fifth tracheal ring. He was unable to fish them up, and, with the consent of the patient, it was decided to go for them through the skin, the muscles, and the esophagus. The operation succeeded beautifully; the teeth were plainly visible, but unfortunately just as the operator was about to seize them the set executed a somersault, and lcaped into the esophagus, and finally into the stomach. In concluding his narrative, Dr. Sonnenburg tells us that after passing through all the digestive passages the teeth made their exit from the body at the orifice opposite to that of their entrance, but he forgets to state whether they were taken back to their previous situation after their inconvenient trip.

MEDICAL IMPUDENCE. — Referring to the Wisconsin Medical Act, which provides that if a physician write on his prescription the words "no duplicate," it shall be unlawful for any druggist to repeat the prescription so endorsed, and inflicts a fine of \$10 for every occurrence of the felony, the Louisville Medical News hopes some day to get a similar law. There are doctors in England who would advocate it, too, if they thought they had the smallest chance of success. "Here," says the Louisville paper, "a prescription gotten on credit, and often not paid for, is used by an individual or a family indefinitely, and is besides often loaned to friends or relatives." It is curious that Americans, of all people on earth, will permit in any state or city such a custom as the one referred to. A law which should fine a man \$10 for using a second time or loaning a kettle or a frying-pan would be just as honest; but it seems the ironmongers of Wisconsin have not yet had the audacity to ask for such a benefit.

Whooping Cough.—In reply to a query in the British Medical Journal several practitioners give their suggestions as to the treatment of this complaint. Dr. Sigismund Sutro writes that quinine, with a solution of hydrobromic acid, acts like a specific. He prescribed the following for a child two years of age:—

A dessert spoonful four times a day: the dose to be increased according to age.

If there were no complication of bronchitis or pneumonia he invariably found the disease arrested within eight or ten days. Mr. Eben. Evans, M.B., C.M. (Beaumaris), advises atropia. He gives one two-hundredth of a grain each morning fasting. Mr. E. Garraway (Faversham) says that there are countless "specifics," and, by consequence, no cures. The treatment by belladonna, however, has met with the most marked success. He is accustomed to administer it in combination with sulphate of zinc: one-sixth of a grain of the extract with half a grain of the sulphate to a child under three years of age; a quarter of a grain and a whole grain to an older child, four times daily. The dose must be increased every other day, till, by the eighth day, the dose has been quadrupled. When the pupils become persistently dilated it is as well to diminish the dose. Termination of the disorder in from 10 to 30 days is the usual and expected result. Dr. Fuller has used this combination largely, and some years ago he stated before the Harveian Society that the whoop rarely lasted beyond 21 days, and sometimes not more than 10. Dr. Whitehead treated 76 cases with belladonna only, the average duration being 22 days.

### Pharmaceutical Notes.

THE PRESERVATION OF CERTAIN EXTRACTS.\*

M. Martin, pharmacien, Frameries, comments on the inconvenience experienced by pharmacists in the case of extracts, such as opium, cinchona, rhatany, and others, which have a tendency to dry. They also, of course, contain a greater proportion of active principle, in proportion as they lose their humidity. M. Martin believes that he has provided a remedy for this inconvenience in crystallised sulphate of soda. This salt in its crystallised form contains 10 molecules of water, for which, however, it has but a feeble affinity, and it thus easily supplies the atmosphere with its lost humidity, and prevents its drying action on the extract. The method adopted by M. Martin is to put the pot of extract in another covered one of larger capacity, and to fill up the surrounding space with the crystallised salt.

#### PILLS OF IODIDE OF IRON.

A PHARMACIEN quoted in the Schweizerische Wochensehrift für Pharmaeie, but whose name is not given, recommends the following as an improved method of preparing iodide of iron pills. Those prepared from the iodide of iron itself, he says, are not to be relied upon, as the compound itself is very unstable, while to make them by evaporation of a solution involves a considerable loss of time. He advises to take 4 grammes of pure iodine, which triturate and mix carefully with 2 grammes or an excess of powdered iron. To this add 2 grammes of powdered marshmallow and a sufficient quantity of extract of couch-grass (extrait de chien dent). The mass gets warm, and the reaction occurs gradually.

It will be found that a relatively large proportion of the extract is required, and it should be of rather soft consistence, as the iodine and iron will extract water from the extract to form a combination. The writer says that the mass when finished scarcely colours alcohol—a proof of its freedom from free iodine.

#### PILLS OF FERROUS CARBONATE.

Those which represent the well-known Pilules de Bland are recemmended by the same Swiss writer to be prepared as follows;—Take of carbonate of potash 11:80 grammes; of crystallised sulphate of iron, 24:20 grammes. Powder, mix thoroughly, add of sugar 5 grammes, and set aside for 12 hours. At the end of that time the mixture will be found in the state of a soft paste. Reduce to the proper consistence by means of powdered marshmallow and divide into 100 pills, which should be immediately dried. Each pill will contain a decigramme of ferrous carbonate.

#### ESTIMATION OF ALBUMEN IN URINE.

THE estimation of the albumen is often one of the most important points in the medical examination of urine. To perform the operation accurately requires considerable experience, as it depends to a great extent on the quantity of acetic acid added to the urine before coagulation. Dr. Esbach, the principal of the laboratory of the Necker Hospital, has devised the following process for obtaining a correct result by pharmaciens or physicians to whom the examination of urine is not of daily occurrence :- First dissolve 10.5 grammes of pieric acid in 1 litre of water. To 9 parts of this solution add 1 part of acetic acid of about 28° (the ordinary acetic acid). Filter, and preserve the mixture, which is your Picric Reagent. To examine urine for albumen, take a capsule with a flat bottom of about 9 c.m. in diameter, and put into it 20 c.c. of the Picric Reagent and 20 c.c. of the albuminous urine. If the urine appears slightly or very albuminous, use 30 c.c. or 10 c.c. of it respectively, in any case making up the liquid in the capsule to 50 c.c. Stir with a glass rod; then transfer to a sand-bath and boilfor five minutes, always stirring. Carefully decant and filter through a tared filter; wash the capsule frequently with distilled water, and after carefully drying and absorbing all moisture from the filter, obtain the weight of the precipitate, which will be in the proportion of 5 to 4 as compared with the ordinary coagulated albumen.

<sup>\*</sup> Répertoire de Pharmacie, December, 1879, p. 542.

#### Clippings and Pickings.

DRAWING THE LINE.—The County Court Judge at Exeter (Mr. M. Fortescue) has decided that a set of artificial teeth were not "necessaries" for a farmer's wife, and nonsuited a dentist who had supplied them in the absence of any expressed authority from the husband.

A RIVAL of a certain lawyer sought to humiliate him publicly by saying, "You blacked my father's boots once."
"Yes," replied the lawyer, unabashed, "and I did it well."
And because of his habit of doing even mean things well, he

PATENT MEDICINE VENDORS AND STAMPS.—There were 19,008 medicine vendors licensed in the last financial year, and the sum derived from the licenees was 4,752L. In the same period 16,727,669 stamps were affixed to patent medicines, and the duty amounted to 132,385L 19s.  $4\frac{1}{2}d$ .

BOTANY OF SOCOTRA.—Dr. Balfour, Professor of Botany in the University of Glasgow, has started at the head of an expedition sent by the British Association and the Royal Society of London to investigate the flora and fauna of the Island of Socotra, East Coast of Africa. Professor Balfour will return to this country about the end of April, in time to commence his classes in the University in May.

"Honesty the best Policy."—Country Practitioner (surprised at the visit of a notorious quack and pill-vendor): "Well! What brings you here?"—Quack (evidently suffering from disturbed peristaltic action): "Well, sir, the fact is, I feel rather queer, and——"—Country Practitioner: "Then why don't you take one of your 'Pearls of Health'?"—Quack: "That's just it, sir. I think I've swallowed one—by mistake!"

"Is This A Foreign Country?" inquires an American journal. "Russia leather is made in Connecticut, Bordeaux wine is manufactured in California, French lace is woven in New York, and Italian marble is dug in Kentucky, Marseilles linen is produced in Massachusetts, English cassimere is made in New Hampshire, Parian art-work comes from a shop in Boston, Spanish mackerel are caught on the New Jersey coast, and Havana cigars are rolled out by the million in Chicago."

Tobacco "Substitutes."—In consideration of the extensive admixture of foreign materials in the manufacture of tobacco in Germany, the Federal Council of the Empire has been compelled to consider the question whether their use should be any longer permitted, and, if so, what tax should be paid thereon. The resolution of the German authorities is that, in the manufacture of tobacco, the leaves of the cherry and agriot tree may be employed, and that the duty payable on such raw materials to the Imperial treasury should be 65 marks per 100 kilogrammes, or about 31.5s. for 2 cwt.—Inventors' Record.

Polished Invective.—The writer in the *Pharmaceutical Journal* who put together the following neat sentence deserves the compliment of quotation:—"Another event that has been brought about by concession to abstract principle relates to the reporting of the proceedings of the Council of the Pharmaceutical Society. The 'gate' has now been opened, and it is believed that when it has been passed the illuminating effect of the pharmaceutical press will be materially augmented. We will not, however, venture to anticipate the consequences of this event, or to predict whether any additional lens-power thus provided will operate by reflection or by refraction."

ORIGIN OF PLANTS.—Cabbage grew wild in Siberia; buckwheat originated in Siberia; eelery originated in Germany; the potato is a native of Peru; the onion originated in Egypt; tobaceo is a native of South America; millet was first discovered in India; the nettle is a native of Europe; the citron is a native of Asia; oats originated in North Africa; rye came originally from Siberia; parsley was first discovered in Sardinia; the parsnip is a native of Arabia; the sun-flower was brought from Peru; spinach was first cultivated in Arabia; the pear and apple are from Europe; the horse-chestnut is a native of Thibet; the quince came from the Island of Crete; the radish is a native of China and Japan; the pea is supposed to be of Egyptian origin; the horse-radish eame from the south of Europe.—Chicago Medical Journal.

#### Colonial Hacts.

The specialties advertised in the Jamaica journals are nearly all French. We miss the almost ubiquitous advertisements of our well-known British patent medicine proprietors.

St. Helena.—The Poor Relief Board of St. Helena are advertising for an experienced medical man to undertake parish and other work. They offer a three years' engagement, with a salary eommencing at 300%. Surely the bleak island, compared with Britain, must be a doctor's paradisc.

WE have received a big Queensland Annual from Mr. David Clarke, chemist and seed merchant, of Warwick, Queensland. It is a good specimen of enterprise. It contains 128 pages, including a number of advertisements, and gives a large mass of information about seeds, soils, irrigation, and the cultivation of the land in that colony.

SOUTH AUSTRALIA.—Olive oil made from olives grown in and around Adelaidc has been placed in the Australian and New Zealand markets during the present quarter. It is said to be equal in "purity and clearness" to the best European, and is tastefully put up for retail. In 1876 New South Wales imported 30,000 gallons of olive oil from Great Britain, and New Zealand 10,000 gallons. It is estimated that Australia consumes at least 100,000 gallons annually. On September 29, at Sydney, New South Wales, olive oil was selling wholesale at 4s. 9d. to 5s. 3d. a gallon; the duty is 6d. a gallon. It was fetching about 3s. 6d. a gallon in London at the same date. Olive trees have been freely planted in public parks and reserves in Adelaide, and thrive well, fruiting abundantly.

From Barbados.—On October 14 two Bills of pharma-eeutical interest were discussed in the Barbados Legislature. Thirteen members were present. The Attorney-General moved the second reading of a Bill for a registration of medical men in the island. The Bill authorises qualified practitioners from any College of Medicine in the United Kingdom or elsewhere to obtain registration to practise and to recover their fees. The Attorney-General said the objects of the Bill were to establish a registration and to give the public a knowledge of duly qualified practitioners, and to enable medical men to recover fees in the ordinary courts. To obtain the sense of the House on the question, the Bill was referred to a select committee.

A Bill granting an exclusive privilege to manufacture sulphurie acid for ten years to H. E. Thorne was read a second time on October 14, and was passed by a majority of one in a house of eleven members on October 21. Large quantities of artificial manures are used in the island, and are almost entirely imported. W. Drumm, of the Reef Manurc and Chemical Works, has obtained a patent for the "Barbados sugar eane manure," which is advertised here as a native manufacture, and has received prizes at the local exhibitions in 1875 and 1876. Sulphuric acid at present costs about  $1\frac{1}{2}d$ , a pound, the price being increased by the fact that not every ship will earry it. It is believed that the manufacture in the island would reduce the price to \(^3d\), a pound. It was urged that Drumm's pateut gave him a vested interest. The Attorney-General was doubtful if the Bill was constitutional. No limit of price was fixed, so there was no certainty that this would be reduced. But it was remarked that the manufacture involved extensive outlay in plant, that it would bring capital into the island, furnish employment, and introduce a new industry. The protection afforded seemed no more than that granted to the gas and water companies of Bridgetown. Probably no one else would attempt the manufacture in the island. The measure was much discussed, and in committee the duration of the exclusive privilege was limited to seven years, and it was decreed that the works must be completed within three years.

SOUTH AFRICA.—A Zulu proverb recently published by Z, in the Natal Colonist has a slight pharmacentical interest. It is Inkomakoma ihaze umnikaziyo; literally, the fern-root (medicine) has cleared out its owner, ukukaza meaning "to purge." We may paraphrase the proverb thus: The brewer of beer has got drunk on it; the aggressor in the quarrel has got the worst of it; the thief has convicted himself.

Two eases of poisoning have occurred in this region. The family of Franz Oosterhagen, of Camdeboo, near Graaf Reinet, in Cape Colony, was seized with delirium and vomiting after drinking their morning coffee. After much enquiry it was found that the goat from which the milk had been taken for breakfast had been bitten in the udder by a snake. Emeties seem to have removed the poison, for the family recovered, but the goat died the same night, the ndder having turned quite black. The inference is that the snake bite affected the milk, which in turn poisoned those who drank it. The second case is rather obscure. A Mr. Hooker, in turn a customs official, a volunteer in the Zulu campaign, and an assistant in a store, on October 24 purchased sixpennyworth of arsenic and a scidlitz powder at Messrs. Raw's, chemists, Durban, Natal. He went to a friend's, asked for a drink of water, mixed with it the arsenic, and drank it. It is said that he immediately noticed that the powder did not effervesee, and, looking at the label, discovered his mistake. He died about twelve hours after.

A somewhat ridiculous miscarriage of justice is reported in the Natal Witness. An employer of coolie labour was fined a sovereign for not procuring the necessary medical attendance for a coolie who had died while indentured to him. It was shown in court that to get a doctor to the locality would have cost fifteen guineas, so the offender made a clear profit of nearly 15%, by the transaction.

At Nitenhage, Adolf Frankenberg has been fined 50% for practising as a physician without a licence from the governor. According to his own account, he was doing his best to cure people that he might get from them such certificates of ability as would secure him a diploma. He ascribed most diseases to liver complaints, and charged 8% 5% in one case for attempting to cure in twelve months a disease of the liver, but which Mr. A. B. Vanes, surgeon, said was consumption of the right lung. No charge, he said, was made for attendance, and he supplied this patient with five bottles of medicine and nine pills. For the defence it was asserted that there was some agreement between the defendant and Mills, a certificated apothecary, which made him the latter's agent.

During the quarter ending Sept. 30, 1879, aloes were exported from Cape colony valued at 1,922*l*.: during the corresponding quarter of 1878 the value was 1,740*l*. Argol valued at 30*l*. was exported during the third quarter of 1879.

In 1878 its value was 282*l*.

#### foreign Items.

QUININE AND YELLOW FEVER.—A leading wholesale drug house in St. Lonis sold, in 1878, for two months in the fall, quinine at the rate of 1,000 oz. a day. This year their sales at the same time did not average over 100 oz. a day. Such has been the decrease of malarial diseases the past autumn.

BELGIAN PHARMACISTS seem to be long-lived, if we may judge from the obitnary published in the last number of the Journal de Pharmacie de la Société de Pharmacie d'Anrers. The deaths are announced of M. Jean François Martin (81 years), J. J. Machez (91 years), and of C. Van der Espt (85 years).

PURE MILK IN CHINA.—The Siam Weekly Advertiser states that the Kulangsu Milk Company, of Amoy, China, guarantees the purity of the milk it supplies, and is ready to forfeit \$50 should its servants at any time deliver an impure or adulterated article. The milkmen are in uniform, and cach is provided with a lactometer.

GREEK PETROLEUM.—In the neighbourhood of Kyry, a village in the Island of Zante, there is a spring which produces a black, thickish rock-oil, mixed with water. This is used in Trieste for making solar oil, the residues being used for eaulking ships or making street pavements. During volcanic cruptions in Italy, and the frequent earthquakes to which Zante is subjected, the production of petroleum sometimes increases to 400 barrels daily. Herodotus, B.C. 484, states that the Egyptians used this petroleum, with asphalt obtained from the Dead Sca, for embalming their dead.—Dr. Landerer, Athens.

OPIUM IN SIAM.—The sale of opium is a monopoly in Siam, and certain important noblemen receive annually handsome bribes for using their influence on behalf of the monopolist. By the treaty of commerce, foreign traders are specifically allowed to import as much opium as they please, but it may be sold only to the monopolist or his agent.

#### Personalities.

MR. JAMES PHILLIPS, for 22 years resident at Church Strotton, Shropshire, has removed to Liverpool, having purchased the business of Mr. Francis Cole, of 56 Everton Road.

MR. HENRY SUGDEN EVANS has retired from the firms of Evans, Sons & Co., Liverpool, and Evans, Lescher & Evans, London, and will now devote his attention exclusively to the Montreal business of H. Sugden Evans & Co.

A HANDSOME chronometer was presented last month by a few friends of the French Hospital to Mr. Eugene Rimmel, the indefatigable honorary secretary, to whom the Hospital owes so much for its great success.

Mr. C. Jones, of Wellingborough, has purchased, through the agency of Mr. Brett, of Leicester, the business of the late Mr. Schofield, Market Place, Loughborough. Mr. White valued for Mr. Jones, and Mr. Brett for the vendor.

Mr. A. H. Church, late of the Agricultural College, Cirencester, has been elected to the Professorship of Chemistry in the Royal Academy. His duty is to instruct the students in the chemical properties and relation of the pigments and oils they use, and the influence of time on paintings.

### The Poison Cupbourd.

Poisoning by Aconite Liniment.—A remarkable ease of recovery from poisoning by aconite liniment is recorded by Charles H. Hill, of Barnsbury, in the British Medical Journal of December 27. A gentleman took a teaspoonful of linimentum aeoniti in water in mistake for parcgoric. Mr. Hill was summoned and reached him five minutes after the dose had been taken, and immediately administered thirty grains of zine sulphate in warm water. In less than five minutes vomiting ensued, which, being encouraged by tickling the fauces, thoroughly relieved the stomach of its eontents, amid which a strong odour of aconite liniment was detected. Another emetic of zinc was taken, of the same strength as the first, followed also by a large draught of warm water. The whole was quickly and powerfully returned by the stomach, but unaccompanied with the faintest smell of the liniment. As the vomiting secmed to depress him somewhat, further drinking was discontinued, with the exception of a little brandy and water, which was not retained long. In three-quarters of an hour after swallowing the poison, he first complained of its peculiar effects-experiencing a tingling in the temples, with a sense of en-largement of the whole frontal region, and with some slight disturbance of vision. The pupils were equal but somewhat dilated. The numbness and tingling did not extend to the body or limbs, though the mouth and fauces were still dry and burning. There was also some heat at the epigastrium, with nausea, but both perhaps due to the zinc. He was cold, aud the skin of the extremitics felt decidedly chilly to the The pulse had fallen to 81, and was soft and The bowels, moreover, were now freely moved. tonch. feeble. A glass of champagne was then taken, and kept down, whilst he was warmly covered up in bed; and at the end of another hour the effects of the poison had passed off, bodily warmth being restored, attended with a comfortable perspiration. He subsequently passed a quiet night, and was quite well next day.

Poisoning by Potassium Bichromate.—Dr. A. Dunbar Walker, of Notting Hill, gives in the *Lancet* au account of a ease of poisoning by potassium bichromate. A German, aged 27, was recommended to take *bicarbonate* of potash for urticaria. No prescription seems to have been given, but he asked a chemist for it, who, from his foreign accent, under-

stood him to ask for bichromate. He took a drachm of this dissolved in water, and within five minutes violent vomiting and purging occurred, and continued, the former for six hours or more, the latter for at least two days, at intervals gradually increasing from 10 minutes. He became much prostrated. The treatment was purely restorative. Hot applications to prevent collapse, water (which was quiekly rejected) to wash out the stomach, laudanum to relieve the excessive pain in the abdomen, and as soon as it could be retained, egg and milk and other liquid nourishment. In a day or two he was convalescent, and seems to have suffered no permanent ill-effects.

#### Trade Hotes.

PERRY DAVIS' PAIN-KILLER.—We observe by an advertisement in our advertising space that the wholesale agency for the sale of this popular American medicine is now in the hands of Mr. John Morgan Richards, of Great Russell Street.

RIMMEL'S NOVELTIES. — The valentine stock at Mr. Rimmel's establishment includes one especially designed by Faustus for bissextile or leap-year, the idea of which will be understood from the left-hand drawing. A new





transparent soap, combined with coal-tar, is also one of Mr. Rimmel's new manufactures, as well as a new cosmetic, happily named "May-Dew." We have seen also a rather fantastic counter show-stand, of which we give a sketch above, consisting of a bunch of china tulips in a brass vase, which is, we believe, given to purchasers of a certain quantity of Rimmel's scents. The stand is showy, but is hardly up to the usual elegance of designs from Mr. Rimmel's establishment. Added to which the tulips themselves are botanically incorrect.

Mr. Lorimer, of the Chemical Works, Junetion Road, has commenced the manufacture of the various fruit essences for confectioners' or domestic use. These are supplied in bottles prettily labelled and capped, and those that we have examined seem to be of superior quality.

THE CLEVER proprietor of Siegel's curative syrup offers to any chemist who will purchase a gross of his preparation a plated cake-basket of very handsome design. He also freely supplies purchasers with books for eirculation, which we have heard have been wonderfully successful in bringing trade in many districts.

FLETCHER'S SOLID-FLAME BURNER.—We mentioned this two months ago. Since then we have made frequent use of it, and find it of surprising power. It is sold at a very low price, and either for pharmaceutical or for domestic purposes can be used with great convenience. Mr. Fletcher has also made a water-heater on a similar principle.

WE are glad to call attention to the system of business advertised in our pages by Messrs, W. H. Chaplin & Co., of Villiers Street, wine merchants. They leave their agents free to fix their own prices, and they are willing to put agents' names on labels and corks.

FAILURES.-Frank Lyon, soap-maker and druggist, 59 Watling Street. This failure occurred in April, 1876, the liabilities being returned at 1,1761. 3s. 7d., and no assets, and the bankrupt applied to the Court on December 16 for his order of discharge. The application was made in pursuance of a resolution of the creditors attributing the bankruptcy and failure of the bankrupt to pay a dividend of 10s, in the pound to circumstances for which he could not justly be held responsible. Mr. A. H. Brown appeared in support of the application. Mr. Registrar Pepys granted the discharge.—Edward Fowler, druggist, 5 Aldgate. A meeting for public examination was held in this case on December 18 before Mr. Registrar Brougham. The liabilities were stated in the accounts at 6881. 11s., and assets 2631, 16s. 9d. Mr. H. Montagu, who appeared for the trustee, said that the bankruptcy took place so far back as March, 1871, and a scheme of assignment was assented to, by which the creditors accepted a composition of 2s. 6d. in the pound. Default, however, was made in payment, and the creditors had since abrogated the scheme. As the proceedings could not be closed until the bankrupt passed his examination, the present appointment had been obtained. There was no opposition, and his Honour allowed the bankrupt to pass his examination.

#### Obituary.

ALLEN.—On December 26, 1879, Mr. Geo. Allen, chemist and druggist, Congleton. Aged 35 years.

ALLEN.—On Friday, January 9, the grave closed over the remains of the late Wm. Allen, pharmaceutical chemist, of Dublin. Mr. Allen's is the first name on the list of the twenty-one gentlemen selected by Government as the first Council of the Irish Pharmaceutical Society, and he is also the first of that body removed by death. Mr. Allen was 65 years of age. The funeral was very largely attended by members of the Masonic Order, of which Mr. Allen was a prominent member, having attained what is termed the 32nd degree, a position reached by few. His business was principally "first-class retail." At one time Mr. Allen employed a qualified apothecary, and carried on dispensing, but threatened action of prosecution on the part of Apothecaries' Hall caused him to give it up. The business will probably be carried on by his son, who has qualified under the Irish Act. The last monthly meeting of the Council of the Irish Pharmaceutical Society, after reading correspondence, was adjourned out of respect for the late member. A meeting was summoned for January 14 to fill the vacancy on the Council. Mr. Allen, jun., who was unsuccessful at the annual election, will probably be unanimously elected by the Council to fill the vacancy.

ATKINSON.—On December 2, 1879, Mr. George Atkinson, ehemist and druggist, Wolverton Station. Aged 35 years.

EVANS.—On January 9, at Malta, John Reginald Evans (of the firm of Evans, Sons & Co., Liverpool), of Wallace Bank, St. Michael's Hamlet, Liverpool, second and sole surviving son of the late T. Bickerton Evans, Esq.

FEGAN.—On December 26, 1879, Mr. John Fegan, pharma-

ceutical chemist, High Street, Exeter. Aged 31 years.

HAFFENDEN.—On December 31, 1879, Mr. Thomas Haffenden, chemist and druggist, Dyke Road, Brighton. Aged 40 years.

HARRIS.—On January 10, at 114 Beacon Lane, Everton, Liverpool, aged 53 years, William Harris, for upwards of 14 years the respected representative of Evans, Sons & Co., Liverpool.

HAMAND.—On December 13, 1879, Mr. Samuel Hamand, chemist and druggist, Stoke, Devonport. Aged 70 years.

LEA.—On December 8, at his residence, 42 St. Helen's Road, Hastings, Mr. Henry Clairment Lea, aged 77 years. Mr. Lea was the eldest son of Captain John Robert Lea, R.N., and had been in business as a chemist and druggist for 40 years at 66 High Street, Hastings. He retired about four years since, and was succeeded by Mr. W. H. Davison. Mr. Lea was of unassuming manners and retiring disposition, but was possessed of a large amount of varied information, while his innate kindness and genuine worth won him many friends.

Lowe, ehemist and druggist, Brooks Bar, Manchester. Aged 57 years.

Rew.—On December 14, 1879, Mr. Robert May Rew, chemist and druggist, Regent Street, W. Aged 50 years.

SMITH.—On December 27, 1879, Mr. William Smith, chemist and druggist, Nottingham. Aged 45 years.

TRUMPER.— On December 20, 1879, Mrs. Susan Trumper. Aged 71 years. Mrs. Trumper was an annuitant on the Pharmaceutical Benevolent Fund, having been elected in 1876.

WHITE.—On December 30, 1879, at the Continental Hotel, Paris, from congestion of the brain, Dr. Samuel S. White, of Philadelphia, U.S., in the 58th year of his age. Dr. White was the celebrated maker of dental appliances of America, and proprietor of the *Dental Cosmos*.

WORTLEY.—On December 28, 1879, Mr. John Wortley, pharmaceutical chemist, Market Place, Durham. Aged 47 years.



#### LIQUIDATIONS.

BYARD, JOHN, & HARDIN, ALFRED, 15 Jewry Street, Aldgate, homeopathic chemists. January 1.

EKINS, WILLIAM, Huntingdon, chemist. December 19.

WRIGHTSON, CHARLES JAMES, 14 Pemberton Terrace, Junctiou Road, Upper Holloway, and trading as James & Co., at 21 Cardigan Street, Hampstead Road, lentilla manufacturer. December 11.

#### PARTNERSHIPS DISSOLVED.

JACKSON, M., & Co., 65 Barbican, London, and CAPNER, H. M., 59 Myddelton Street, Clerkeuwell, manufacturers of scientific apparatus. October 16. Debts of the Barbican business by J. Orme, and of the Myddelton Street business by H. M. Capner.

PAUL & ACWORTH, 106 Fenchnrch Street, London, and 1 Victoria Street Westminster, analytical and consulting chemists. December 31. Debts

by B. H. Paul.

PROCTER & POWELL, 1 High Street, Cardiff, chemists and tohacconists., December 11. Debts by S. J. Procter.

RICHARDS, KEARNE & GASQUOINE, Malkins Bank, Betchton, Chester, manufacturing chemists. December 31.

SHEARER BROTHERS, 156 New City Road, Glasgow, chemists and druggists.

December 24. Debts by D. B. Shearer, who continues under the same firm,

#### DIVIDENDS PAYABLE.

ADLINGTON, WILLIAM BENJAMIN, 6 Weymouth Street, Portland Place chemist. First, of 1s. 6d., at W. M. Watts', 32 Lower Whiteeross Street London.

BRIERLEY, JOHN, Stafford Street, Barrow-in-Furness, chemist. First and final, of 1s., at R. Ellis's, Cornwallis Street, Barrow.

LANGRIDGE, THOMAS B., Midhurst, Sussex, chemist. Of 4s. 6d., at Boyes

& Childs's, 42 Poultry, London, on Mondays.

STRINGER, ALFRED, Homend Street, Ledhury, Hereford, chemist and druggist. First, of 7s. 6d., at J. Bunkle's, 25 Waterloo Street, Birmingham.

#### ABSTRACTS OF SPECIFICATIONS.

For permission to print the following we are indebted to the courtesy of the Engineer:—

713. PRODUCTION OF Sulphur, O. C. D. Ross.—Dated February 21, 1879.

This consists in recovering sulphur from substances, such as spent oxide or other materials containing free sulphur, by treating the same with superheated steam, conducting the currents of mixed steam and vapours into chambers or vessels where the currents impinge against diaphragms or other obstacles, and thereby made to deposit sulphur.

719. PRESERVING, &C., Cod-liver Oil, G. H. Aitchison.—Dated February 22, 1879.—(Not proceeded with.) 2d.

Benzoic acid is mixed with the oil so as to preserve the same, and also destroy the nauseons taste and smell.

738. MANUFACTURE OF CHEMICALLY-PREPARED Paper, &c., for Covering Silver and other Metal, W. R. Lake. - Dated February 24, 1879.—(A communication.) 4d.

This consists in making a saturated solution of either chloride of zinc, chloride of ammonium, chloride of potassium, or hypochloride of lime, or hleaching powder, diluting the same to any degree of strength, and then filling the pores of the paper, cloth, or wood with this solution, so that this paper, cloth, or wood may he pnt around silver or other metal ware of any description, and protect the same from tarnishing by the gases always more or less present in the atmosphere.

786. MEDICINAL Rhubarb, J. W. Swan and B. S. Proctor,—Dated February 26, 1879. 4d.

This relates to treating rhubarb with such solvents as have the power of dissolving the oily matters upon which the olour of rhuharb mainly depends, and upon which the taste partially depends, but which are not of medicinal value.

1050. Rectifying Spirits, F. H. F. Engel.—Dated March 17, 1879.—(A communication) 4d.

Crude spirits are rectified by adding to 10,000 litres of spirit from 20 to 50 gramues of nitrate of silver.

1081. Disinfectants, &c., R. V. Tuson.-Dated March 19, 1879. 2d.

This consists, first, in the production of a mixture or mixtures made by impregnating to saturation or to any less degree with sulphnrous acid gas, a solution or solutions of any known chloride, sulphate, nitrate, or acetate of zinc, iron, manganese, alaminium, or copper, or a mixture or mixtures of these salts in water, glycerine, spirit of wine, wood spirit, methylated spirit, or fusel oil, or in a mixture or mixtures of these liquids; secondly, in the production of a mixture or mixtures by impregnation, a mixture or mixtures of carbolic acid, cresylic acid, or any other tar acid, with water, glycerine, spirit of wine, wood spirit, methylated spirit, fusel oil, or any known chloride, sulphate, nitrate, or acetate of zinc, iron, manganese, aluminium, or copper, or a mixture or mixtures of these acids, liquids, and salts.

1359. MANUFACTURE OF Sulphocyanides AND Ferrocyanides, II. E. Newton.—Dated April 5, 1879.—(A communication.) 6d.

This relates to improvements on patent No. 1148, dated March 22, 1878, and consists in causing a reaction of sulphuret of carhon and an ammoniacal solution to take place in a heated receiver, in which will be formed a cyanide of ammonia, which should afterwards he treated with lime in order to transform it into sulphocyanide of lime and to regenerate the ammonia. The sulphocyanide of lime serves as an intermediary for preparing all the other sulphocyanides.

1306. Separating Sulphur from Alkaline Solutions, J. Allmann.—
Dated April 2, 1879.—(A communication.)—(Not proceeded with) 2d.

In order to separate metallic snlphides from lyes or solutions of soda or potash, a solution salt of manganese is added thereto, and air forced into the liquid.

1345. Weighing Alcohol, &c., AND INDICATING SUCH WEIGHT, A. Browne,—Dated April 4, 1879.—(A communication.)—(Complete.)—(Void.) 8d.

This apparatus acts upon the principle of a halance, operating mechanically, and admitting of the most exact reckoning and weighing.

1530. Oxidising the Sulphides of Sodium and Potassium IN ALKALINE SOLUTIONS, J. Allman.—Dated April 18, 1879.—(A communication) 4d.

A soluble salt of manganese is added to the alkaline solution to be treated and air is forced into the body of the liquid.

1506. NUTRITIVE Foods AND CONFECTIONERY, J. Fordred.—Dated April 17, 1879. 4d.

This relates to the use of a concentrated extract of malt in the preparation of nutritive foods and confectionery.

1592. MANUFACTURE OF Ammonia from the Nitrogen of Atmo spherie Air and Hydrogen, W. Müller and E. Geisenberger.— Dated April 22, 1879. 6d.

To produce ammonia from nitrogen derived from atmospheric air and hydrogen, the products of combustion, which are almost exclusively composed of nitrogen, and which may be purified so as to eliminate any foreign bodies from them, are subjected to the action of electricity in the presence of hydrogen. The gases are put in motion with or without pressure; the ammonia produced as soon as it is formed is made to pass away from the decomposing action of electricity.

1703. OBTAINING Soda AND Potash, &c., J. Townsend.—Dated April 30, 1879. 4d.

In one process 100 lbs, maguesium sulphate and about 97½ lbs, sodium chloride are mixed and dried so as to be porous, and are beated in a retort to about 700° F. Steam is then passed through the mixture, and causes hydrochloric acid to be driven off, which may be collected and utilised, the result of the reaction being sodium or potassium sulphate. Several processes are described in which salts of magnesia and silica are employed to obtain soda and potash and their salts; also sulphuric acid and chlorine.

#### EXCHANGE COLUMN.

Terms.—Announcements are inserted in this column at the rate of one halfpenny per word, In condition that name and address are added.

Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the Publisher of The Chemist and Druggist, and all correspondence relating to it must be addressed to the "Publisher of The Chemist and Druggist, Colonial Buildings, Cannon Street, London, E.C.," the envelops to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

Deposit of Money.—In order to ensure afety we offer the following system:—The purehaser of anything advertised in the Exchange Column may remit the amount to us. We shall aeknowledge receipt to both parties by post-eards, and shall only pay it away on the advice of the remitter. Whether returned to him or paid to the seller, we shall charge a commission of  $2\frac{1}{2}$  per eent. on any money thus passing through our hands, and not less than 6d. on any single transaction. This arrangement should entirely prevent any enuse of complaint or dissatisfaction arising out of this section of The Chemist and Druggist.

#### FOR DISPOSAL.

#### Dental and Surgical.

Easy instructions in mechanical dentistry, plate and vulcanite. 89/23.

To Dentists.—Ebonised outside plate glass showease (by Treble), nearly new, 2 ft. high, 13 in. wide, two shelves, silvered back, iron fasteners for wall, cost 51.5°. Also following specimens:—3 partial gilt sets, 2 partial dental alloy, 2 complete upper and lower sets vulcanite on gilded plaster stands, 4 upper sets vulcanite, 4 partial upp r sets vulcanite, 1 lower set vuncanite, pice 101.10s. A., care of Mr. Ebbage, Yoxford, Saffolk.

#### Drugs and Chemicals.

Twenty-two lbs. of good fair liver aloes, Barbadoes, and 7 lbs. of balsaur tolu; what offers? 89/18.

Ten 1-oz. bottles Howard's quinine, 10s. 6d. oz.; ease rad. zingib., finest Coehin, 9½d. 1b., sample. 89/16.

Quantity of good honey, price 8d. per lb., about 1 lewt.; about 50 lbs. of wax at ls. 4d. per lb., if the whole be taken, samples free. II. Kenp, High Street, Horneastle.

#### Educational.

Cheap.—Slides for the microscope, containing scales of "Podura," nearly mounted, 7d. cach. J. T. Hall, Levenshulme, Manchester. Muter's "Materia Medica," 3s.; Culpeper's "Physician and Herbal" (by Sibley), illustrated, in good condition, cash offers wanted. B., Mirror Office, Lyme-Regis, Dorset,

Superior microscope (Smith & Beck), two objectives, two eye-pieces, fine and coarse adjustment, &c., see Lynch's catalogue, price 61.12s. 6d., will take 51. cash; 24 in. marble slab, 7s. 6d. "Surgeon," 154 Hoxton Street, N.

Botany.—Aconite, belladonna, colchicum, henbane, hemlock, digitalis, savin, horehouud, caraway, coriauder, and 110 more leading indigeuous plunts; beautifully mounted, classed and named; only 10s.6d.; free. Higginson, Newferry, Birkenhead.

Fifty questions asked of a successful student at last Minor, 2s.; 30 prescriptions (eatch and difficult) given to dispeuse at Minor during past session, 2s.; reagent labels for Minor students, showing formulæ, equations, and other useful knowledge, 1s. 6d.; lot of cheap books for students; send stamp for list. Saunders, Tutor, 79 Gaisford Street, N.W.

Separately or together, Juld's Minor Works; "Short Cut to the Tinetures, Ointments, Atomie Weights, Botany;" "Progressive Exercises in Equations ;" " Autograph Prescription;" "Minor Questions;" "Fasciculus Prescriptionum;" all for 3s. 6d.; Bentley's "Botany," last new, 8s. 6d.; Wittstein's "Chemistry," 1s. 6d.; set of chemical apparatus, 8s.; botanical microseope, 4 silvered lenses in box, 7s., worth 11.; Bowman's "Medical Chemistry," 2s.; Muter's Chemistry," Ss. 6d.; Pereira's "Materia Medica," new, 14s.; "Pharma-eographia," 11s.; Bernay's "Student's Chemistry," 95 engravings," 3s. 6d.; Heath's "Anatomy," 5s.; Kirke's "Physiology, is; cylindrical electrical machine, with experimental apparatus, 17.; cost 31.10s.; "Encyclopædia of Agriculture," Loudon's 1 200 engravings, 12s. H. Cagney, 55 Riehmon l Road, Barnsbury, N.

#### Shop Fittings.

The entire fittings of 5 handsome chemists' shops for disposal, including utensils, price 351., 491., 551., 601, 701. Lloyd Rayner, 333 Kingsland Road, London, N.

Handsome superior mahogany wardrobe, 7 feet long, conveniently fitted; price 121. 10s., eost more than double. Lloyd Rayner, 333 Kingsland Road, London, N.

18 handsome jars, with royal and other arms; 60 pear shape and upright carboys; handsome show-jars, elegantly labelled, as figs. A and D. Maw's; handsome lozenge-jars, 1-lb., 2-lb., 3-lb., 4-lb; 1,503 geld-labelled shop bottles, all sizes; 800 gold-labelled ointment and ext. jars, all sizes; 300 block-glass store bottles, with japan and gilt eaps; quantity shop lamps, tineture presses, pill macbines, counter and dispensing scales, mortars and pestles, &c. Lloyd Rayner, 333 Kingsland Road, London, N.

Cheap, in consequence of alteration in shop windows, eight specie jars, about 18 inches high, with japanned covers, uniformly labelled by Mather in 1876 in double-enred lines for best sponges, poppy heads, calcined magnesia, Columbo root, Peruvian bark, Indian arrowroot, Jamaica sarsaparilla, 22s. each, or 40s. per pair; one York Glass Company's half-gallon glass percolator, graduated, and gl ss tap, cost 11. 11s. 6d., will take 17s.; will take 30 oz. or 40 oz. shop stoppered rounds in exchange at 6d. each. J. B. Leslie, Chemist, Trippat Lane, Sheffield.

Twenty-five mahogany bent-glass eases, in all lengths and widths, with aud without sloping shelves at the back; handsome show eases, as figs. 3, 23, 41, 52, 72, 73 Maw's; sponge eases as 90, 92 Maw's; show stands, as 19 85 Maw's; dispensing screens, in all sizes, from 3 feet to 10 feet long, as figs. 40, 163, 164, 165 Maw's and 139 Treble's; handsome Spanish mahogany plate glass wall cases, with plate-glass case, cupboards underneath, similar to 193, 204, 206 Maw's; handsome maliogany gold-labelled shop-drawers with lockers, shelving, and cornice, forming complete fittings, as 187, 188, 190, 191, 194, 196, 197 Maw's; 35 nests mahogany-fronted goldlabelled shop-drawers, from 2 ft. to 28 ft. long; 18 ne ts deal-stained mahoganyfronted gold-labelled shop drawers, from 2 ft. to 15 feet long; 12 mahogany top counters, all lengths; 5 warehouse counters; 26 nests counter drawers, all lengths. Every description of fixtures and utensils required by the trade. Lloyd Rayner, 333 Kingsland Road, London, N.

About a 601. lot of drugs, from Evans & Co .. Liverpool, all in original packages, a fit-up for a new beginner, for 3) per cent. list price; fixtures for a small shop, 201.; fixtures, bottles, jars, counters, &c., complete, 351.; also a complete shop for 551.; a 6-ft. pine wall-ease, French polish, 9 ft. bigh, 110s; mahogany wall-ease, 4 ft, 61.; also one 8 ft., 141.; painted wall ease, 8 ft. long, 130s.; ebonized wall-ease, new, as Maw's 240, 8 ft. long, 9 ft. high, 131. 10s.; desk and ease, as Maw's 17, 75s.; desk and case, as Maw's 39, 47s. 6d.; do., as 13, 35s.; bent front-case, as Maw's 105, 6 ft. long, 100s.; also same style, 6½ ft. long, 57s. 6d.; and 7 ft. case, 72s.; dispensing screens, with mirror cent es and handsome tablet on top, 5 ft., 90s.; 6 ft., 105s.; 7 ft., 115s.; ease, as Maw's 154, 65s.; as 159, 6 ft. long, 110s.; handsome screen, 8 ft., 101.; second-hand specie-jars, 18-in, 17s. 6d; 20-in., 25s.; 22.in., 32s. 6d.; 24-in., 35s.; 30-in., 40s.; flat counter-eases, 12 by 8, 2s.; 12 by 24, 5s.; 13 by 30, 15s.; 15 by 48, 27s. 6d.; 15 by 60, 30s.; 12-ft. nest of mahogany-fronted drawers, very good, 65s.; 12-ft. range of mahogany fittings, 141. Write for illustrated lists and particulars, stating the kind of fittings and eases you are seeking, and full particulars will be sent by R. Tomlinson Druggists' Shop-fitter, St. Paul's Square Birmingham.

#### Literature.

- Rhind's "Vegetable Kingdom," 3s. 6d. H. Chambers, Huntingdon.
- Dickens's Works, Household Edition, illustrated; about 70 parts; good condition; exchange or offers. Ginns, Rothwell, Kettering.
- Pharmacentical Journal posted day of publication; offers. "Pharmacist," 43 Tontine Street, Folkestone.
- Several years' back numbers of Chemist and Druggist; what offers? Willey, Chemist, Leicester.
- 26 vols. running Phurmaceutica' Journal, half-ealf, splendid condition. Cash offers to Alexander Simpson, 17 Broomhill Place, Aberdeen.
- The Chemist and Druggist for 1878-79; Pharmacentical Journal, 9 vols., third series, complete, bound. Address, Kirkman, Chemist, Dedham, Celebester.
- 1 Tome's "Dental Surgery." in good condition, 7s.; 1 Chemist and Draggists' "Post-office Directory," good condition, 1876, 7s. 6d.; 1 British Pharmacopeia, 1867, good condition, 7s. J. Barlow, Blackheath, near Dudley.

#### Formulæ.

- Copying apparatus.—Recipe for composition and ink, 1s. Wittstien, Lower Broughton, Manchester.
- Nubian blacking.—Recipe for preparation similar in appearance, smell, and effect to ahove, with directions, 2s. 6d. Wittstien, Lower Broughton, Manchester.
- Vaseline cream, ung. vaseli. direbyl., aqua lavand., brilliant ne (both kinds), quinine wine (without acid), inseparable lime cream, excellent tooth wash, marking ink (without heat), golden hair wash, magic tie cure (without quinine), Chili paste, hair dressing (resemble macassar), and many others, as used by an eminent firm. 86/35.
- Indestructible marking-ink (sine silver), usable with any pen, requires no heating, writing unobliterate i by chemicals; brilliant polish for leather (resembles "Nubian" blacking), soluble essence of ginger (equal to Hay's), cherry tooth-paste (never ferments), clixir (or vinnn) pepsine, toilet vinegar (equal to Himmel's), with several others. Send stamp for list, all gennine and reliable, 5s, each (five for 1t.). "Analytical Chemist," Herbert Heblethwaite, Cumberland Market, N.W.
- New Year's Gift.—50 formulæ, valuable and effectual remedies (medical, veterinary, and proprietary), all genuine an 1 reliable; bear good profits and command au extensive sale; copied neatly in book for 7s. 6d. free; testimonials from all parts; sure to give satisfaction. N. B. H. S., Manchester, writes:— "Your formulæ are beyond all praise; they are a great boon to us. Every chemist should possess a copy; they are worth pounds." "Annieus," 43 Tontine Street, Folkeston?.
- Fragrant foaming denti'riee (similar to Floriline); glyeerine jelly (perfectly transparent); elierry tooth piste (never ferments); brilliautine (inseparable); lime-juice and glycerine (inseparable and perfectly white); sp'endid black ink (never corrodes steelpens); marking ink (black or red); efferveseing fruit saline (resembles Eno's); pillcoating (pearly white, no mueilage or mastic nsed); magie neuralgie drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); excellent ebilblain paint; eough mixture (clear red, effective, and agreeable); with many others; send stamp for list. The toilet nrtieles are identical with those prepared by a renowned West End perfumer : the others are equally good; all inexpensive to prepare; 5s. each (five for 11.); inquiry letters must be prepaid. "Analyst," care of Mr. Warnes, 79 Gaisford Street, N.W.

For making the composition and ink for the "graphs," now so largely sold, for taking 50 to 100 copies of any mannscripts, 2s, 6d. in stamps. R. J. Y., Geneva House, B. deford, Devon.

#### Miscellaneous.

- Two hundred thousand quilt tooth picks, cheap. 90/38.
- 25,000 dispensing slips, at 6d per 1,000. Apply for list to W. S. Harvey, Margate.
- Electrical machine (cylinder), cost 51., for 17s. 6d. H. Chambers, A.P.S., Huntingdon.
- Very superior quart tineture press, good as new, price 6s. H. Kemp, High Street, Horncastle.
- A Bargain.—A few dozen assorted patent medicines; also small quantity of druggists' sindries, &c. Charles Grey, P.O., Stafford.
- Half list price.—12 lbs. galls, l lb. ol. pimentæ, ll Spratt's distemper cure. Maitland, Stonehouse, Plymouth.
- For 8s. Baker's patent mixer, three sieves, perfect condition, have bought larger machine. Billington, Chemist, Barnsley.
- Mushroom ketebnp, in good condition, price 4s. gallon; will take patents or drugs in exchange. Blad s, Chemist, Leek.
- Herbarium Pharmacenticum and leech aquarium for 59, offers wantel. Saunders, West Gorton, Manchester.
- To Eau de Cologne makers and others. Original bottle finest oil of neroli, about 9½ ez, 51. 5s. eash. 87/31.
- Twenty-five II. shares in the Chemist's Aërated and Mineral Waters Association (Limited), price 15s cach. Mark Cooper, Church, near Accrimaton.
- To Makers of Unfermentel Wine.—Press and ernsher, in good condition, for sele. Apply to Frazer & Green, 113 Buchauan Street, Glasgow.
- Handsome double perambulator, never been used (Dunkley's patent reversible), will take 21, 10s., furniture, or salcable patents. W. S. Harvey, Margnte.
- Three doz. Backett's syrups, pints, the lot for 30s.; 2 lbs. ol. lavand. Mitcham opt., bot. ol. eitronelle, bot ol. verbena; wbat offers?

  A. Parker, Uttoxeter.
- dozen Druiff's spectacles, cost 6s. 6d., 15s. 6d., 24s., and 42s. per dozen, quite new, assorted sizes, the lot for 5l. D. L. Anderson, Forfer. N.B.
- On sale, cheap, or good exchange, cupping case, 12 vols. Braithwaite's "Retrospect of Medicine," large coffer-mill, eight-keyed flute, clastic cotton knee-caps. 88/4.
- Scott's nethmatic cigarettes and smoking mixture, 22 2s. boxes, 20 1s. boxes, 3 2s. 6d. tins of mixture; all quite clean; price for lot 35s.; exchange to 42s. Steal, Lees, near Manchester.
- Honey, equal to English kegs, 62s. ewt; 24 lb. jars, 8d. lb.; Pharmaceutical Journal, several years, bound; two large slow jurs, tin caps. "Chemist," 20 Sussex Street, Pimileo.
- Quantity of roll plasters (assorted kinds), perfectly clean, &c., also some stoppered rounds (wide and narrow mouth), both at lalf list prices. G. K., 278 Great Homer Street, Liverbool.
- Eight Gabriel's m uth wash, 5s.; 2 doz. Gabriel's tooth paste, 2 doz. tooth powder, 1 doz. gutta\_ rereha stopping, 2 doz. sedadent, 6 doz. petble and other spectacles; what offers? eash or exchange. Ellis, Chemist, Southport.
- Medicine-ehest, Maw's, fig. 4, condition equal to new, 21. 5s, exchange for saleable patents, Allecek's plasters, Scott or Beecham's pills; also four 2 gall. enrhoys, cheap; wanted large bell-shaped leveb aquarium. Smi h, Chemist, Amersham.

- A nearly new ½-horse vertical engine, suitable for seed-grinding, price 31.; three plain and three stoppered retorts, 5s. Huband, Mesnes Street, Wigan.
- One dozen 4s. 6d. Madame Warburgh's fever tineture, perfectly clean wrappers; also a platinum cup for analytical purposes, 3½ inches in diameter, has never been used; what offers? cash or otherwise. C. Wills, I Carfax, Horshum.
- One ½-gall. displacement apparatus, shape fig. 1
  Maw's, makers York Glass Co., cost 30s, will take 21s, equal to new; about 56 feet indiarubber hose, ¾-inel diameter, fitted for cleaning shop front or garden use, very little used, will take 21s, cost nearly double.

  J. Barlow, Blackheath, near Dudley.
- Square outside lamp, complete, with reflectors, hracket, two sides ruby, one green, 2l. 10s.; tooth forceps (second hand), each 1s. 6d.; a few 1-cz. bottles Howard's quinine; patents in exchange. Bell, Chesshire & Don, Sundriesmen, 3:8 Coldharbour Lane, Brixton Station.
- Urgent, in straightened circumstances through long illness, a Pulvermacher chain buttery, quite new, cost 51. 5s., receipt shown; a full compais fine toned flutina, in case, cost two guineas, in perfect order, would make bandsome present, no reasonable offer refused. S. K. Brooks, Eastcott Road, Swindon.

#### WANTED.

Gabriel's enamel and dentifrice; elean. 91/3 Pharmaceut'out Journal, a few days old. 81/3. Ccdd's patent bottles, full size, up to 50 gross. 89/22.

- 5 cwt. platform weighing machine. Particulars
- to Loekwood, Chemist, Sheffield.

  Copies of the three last Bell's Scholarship examination papers. 89/39.
- Chemist and Druggist in exchange for Pharmaceutical Journal. Adams, Chemist, Malvern.
- Carew's disinfecting fluid. Send sizes, quantity, and price to Crassweller, Bury St. Edmunds.
- Chemist and Druggist for January, February, March, April, 1877, and Index-for 1875 and 1877. Reynor, 50 Camden Street, Dublin.
- Address of Dr. W. Sheppard, late The Poplars, Rayleigh, Essex, previously Bentley, Hnnts. J. J. Stone, Alton.
- Human skull, also two thigh or leg bones; good condition; must be cheap. Ginns, Rothwell, Ket'ering.
- Good dispensing screen, large show cartoys; also 40-oz. and 32-cz. gold-labelled tottles. Send particulars to Davenport, Chemist, Wolverhampton.
- Mahogany bent plate glass connier-case, about 4 feet long, with sloping and flat shelf; in perfect condition. Particulars and price to W. Ward, 3 Waingate, Sbeffield.
- King's treatise on "Coal Gas," Bowditch's "Gss Analysis," Cassell's "Technical Educator," Attfield's "Chemistry," Fowne's "Chemistry," Wills' "Decimals," Galloway's "Qualitative Analys's," Sayer, Warrington Street, Ipswieh.
- John Mason Good's "History of Medicine as it Relates to Apotheearics," Joseph Bradney's "Murepsologia," A. Philippe's "Histoire des Apotheeaires," Laugier & Duruy's "Pandectes Pharmaceutiques," and other hooks on the history of pharmacy. 80/18.

Mr. Hall (Stafford) writes:—"I beg to inform you that to my advertisement for Acton's 'Reproductive Organs,' in your last issue, I had about a dozen offers, and obtained a perfect copy as good as new for 5s. Cd. When I again want anything of the sort I shall certainly not pay the published price, when, with your assistance, it can te ob'a ned at about half the money."

1879.

1880.

### Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mincing Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

offered by the Wholesale Firm	1S.									
CHEMICALS.		18	80.		1		18	379	•	
ACIDS—	8.	d.		s.	d.	J.	d.		8.	d.
Aceticper lb.	0	$2\frac{1}{2}$	to	0	$3\frac{1}{2}$	0	23	to	0	0
pur ,,	0	4	• •	0	7 10	0	0	••	0	0
glaciale ,, Benzoic Sublimate	0	$9\frac{3}{4}$	••	U	10	"	v	••	U	U
Benzole Sublimate	7	6		0	0	0	0	••	0	0
Citric,	2	0	••	0	0	2	0	••	0	0
Gallic,	3 5	6	••	3 7	10 0	0 4	0	••	7	0
Hydrochlorper cwt. Nitricper lb.	0	4}		ó	ŏ	0	41	••	ó	ŏ
Oxalic,	Ö	5		0	0	0	48	••	0	$4\frac{1}{2}$
Sulphuric ,,	0	03	••	0	1	0	03	••	0	1
Salicylic,	8	8	••	8 2	6 8	0	0	••	0	0
Taunic,	1	61		1	7	. ĭ	41	•••	ĩ	43
powdered ,,	ī	65		1	7	1	$4\frac{7}{2}$		1	43
Antimony ore per ton	0	0	••	0	0	240	0	••	300	0
crude per cwt.	0	0	• •	0	0	32 49	6 0	••	0 51	0
Arsenic, lump ,,	23	6	••	ŏ	ŏ	25	ŏ	••	0	ŏ
powder,	10	6		0	0	9	0	••	0	0
BRIMSTONE, rough per ton 1	105	0	••	107	6	100	0	• •	110	0
roll per cwt. flour ,	9 10	$\frac{6}{6}$	••	10 12	3	9 10	6	• •	10 13	0
GLYCERINE, German	10		••	12		10	•	••	10	
refined,	46	0		60	0	0	0	• •	0	0
crude brown ,,	$^{28}_{1}$	0	• •	30	0	0	$_{1}^{0}$	• •	0	0
IODINE, dryper oz. MAGNESIA, calcinedper lb.	1	$\frac{2}{10}$	• •	0	0	1	10	••	0	0
MERCURY per bottle l		ő	••	ő	ŏ	127	6	••	ő	ŏ
MINIUM, red per cwt.	18	0		19	6	16	9	• •	17	0
PRECIPITATE, red . per lb.	29 3	0	••	3)	0 1	28	6	••	0	0
PRECIPITATE, red . per lb. white ,,	3	3		0	0	3	$\frac{3}{2}$	••	0	0
PRUSSIAN BLUE ,,	0	0		0	O.	0	0		0	ő
SANTONINE	25	0	• •	27	0	0	0		0	0
SALICINE, THYMOL	$\frac{16}{26}$	0	• •	$\frac{0}{27}$	0	0	0	• •	0	0
THYMOL,	0 نہ	v	• •	~ .	v		v	••	0	0
SALTS-										
Alumper ton 1		0	••	140	0	120	0	• •	125	0
powder ,, 1	50	0	••	155	0	140	0	••	0	0
Carbonate per lb.	0	$6\frac{1}{2}$		0	63	0	61		0	63
Hydrochlorate, crude,		_					- 2	• •	·	- 14
white per ton 6 British (see Sal Am.)	00	0	••	800	0	.600	0	••	720	0
Sulphate per ton 4	100	0		410	0	375	0		380	0
Argol, Capepercwt.	77	ŏ	••	86	0	75	ő	••	82	0
. Red	50	0		75	0	52	0		70	Ö
	35	0	••	36	0	.32	0	••	33	0
Ashes (see Potash and Soda)	60	0	••	65	0	6)	0	••	65	0
Bleaching powdper cwt.	8	0		0	0	5	9	••	0	0
Borax, British refud	39	0	••	4)	0	35	6	• •	35	6
Calomelper lb. Chloral hydrate,	$\frac{2}{4}$	11 2	• •	0 4	0	2	10	••	0	0
Liebreich's ,,	5	10		6	0	ő	0	••	0	0
Copper:	-		• •		•		v	••	v	U
	21	0	••	21	6	18	3	• •	18	6
Copperas, green . per ton Corrosive Sublimate p. lb.	$\frac{50}{2}$	0 4	••	55 0	0	50 2	0	••	55	0
Cr. Tartar, French, p. cwt. 1		0	••	0	ŏ	102	3 6	••	103	0
brown	92	6	••	93	6	80	ŏ	••	82	6
Epsom Salts, Glauber Salts,	4	3	••	6	0	4	3		6	0
	$\frac{3}{42}$	6	••	4 0	6	3 47	0	••	4	6
Morphia Murias ,,	8	ő	::	0	0	20	6	•••	0	0
Potash:		_					-	•••	•	v
Bichromateper lb. Carbonate:	0	7	• •	0	$7\frac{1}{2}$	0	43	••	0	õ
Potashes, Canada, 1st										
sortper cwt.	28	0	••	0	0	24	6		0	0
Pearlashes, Canada, 1st	0.0	0						••	·	Ů
chlorateper cwt.	32 0	6 73	••	0	8 .	36	0	••	0	0
Prussiate,	ő	$\frac{7\frac{3}{4}}{11\frac{1}{4}}$	••	ő	0	0	63	• •	0	0
rcd	1	- 8		1	101	ĭ	11‡ 7½	••	1	11 <u>1</u> 8
Tartrate (see Argol and C Potassium:	rea	ım o	r Ta	rtar)			-			
Bromide	1	11	••	2	0	1	0		^	0
onformeper cwt.	0	0		ű	ő	$\frac{1}{6}$	8	••	0	0
	18	0	••	18	6	16	Ö	••	16	6
Sulphate, British, in					1					
bottles per oz.	12	0		0	0	12	6		^	0
Sulphate, French ,,	12	3		12	6	0	0	••	0	0
Sulphate, German ,, Sal Acetosper lb.	11	0	••	11	3	0	0		0	0
	0 44	7	••	0 45	$0^{7\frac{1}{2}}$	0 44	$\frac{6\frac{1}{2}}{0}$	• •	0	7
,	-		••	20	v	14	0	••	45	0

Siltpetre:	s.	d.	.00	8.	d.	s. d.	s. d.
Bengal, 6 per cent. or	22	0	+-	23	3	19 0 to 1	.9 6
under per cwt. Bengal, over 6 per cent.	24	9	to	23	0	15 0 10 1	.9 6
per cwt.	21	0	••	22	6		8 9
British. refined ,,	26	0	••	27	6	0 0	5 0
Soda: Bicarbonate ,, Carbonate:	10	9	••	11	0	8 9	9 0
Soda Ashper deg.	0	2		0	0	0 11	0 0
Soda Crystals per ton	80	0	••	82	6	60 0 6	2 6
Caustic	11	9	••	12	6	0 0	0 6
Hyposulphite, per cwt. Nitrate,	0 19	0	••	0	0	10 0 1	0 0
Zinc Sulphate "	0	ő	••	ő	ŏ		0 0
SUGAR OF LEAD, Whitecwt.	38	0		0	0	38 0	0 0
Brown, cwt.	26	6	••	0	0	1 1	0 0 -
VERDIGRIS per lb. VERMILION, English ,,	2	0 6	••	0 2	8		1 5 0
China ,,	2	5	••	õ	o		ου
ORUGS.							
ALOES, Hepatic per cwt.	60	0	••	150	0	80 0 16 75 0 20	
Socotrine ,, Cape, good ,,	60 41	0	••	19) 43	0		00 0 12 1 6
Inferior ,,	35	0		40	ŏ	36 0 8	39 0
Barbadoes ,,	32	6	••	240	0	60 0 19	
AMBERGRIS, greyOZ.	4.5	0	••	72	0	47 0 8	30 0
Canadaper lb.	0	11		1	1	0 8	0 81
Capivi,	2	3	••	3	ō	1 3	1 10
Peru,	7	.3	••	7	5	4 8	4 9
Tolu,	3	3	••	3	11	2 9	3 0
BARKS— Canella albaper cwt.	15	0		20	0	24 0 8	30 O
Cascarilla	17	ő		23	ŏ		24 6
CINCHONA-							
Calisaya, good and fine per lb	. 5	6	••	7	0	4 6	6 6
,, medium ,,	3 6	9	••	5 7	0	3 6	5 <b>0</b> 0
N. Granad., fair to fine ,, ord. to mid. ,,	3	ő	••	6	ŏ	0 0 ::	0 0
Columbian, fine	3	6	••	4	6	4 0	6 4
,, ord. to fair ,,	1	6	• •	3	0	1 6	3 6
Carthageur, fair ,,	$\frac{2}{2}$	9	• •	3 2	3 8	2 8	4 6 2 6
Ceylon, crowu "	3	6		5	6	4 0	7 0 /
,, red,	ĩ	9	••	3	0	0 0	0 0
" twigs and chips "	0	85	••	1	0	1 0	2 2
Darjeeling, red,	0	6	••	3 1	3	3 0	3 9 1 3
BUCHU LEAVES, CAMPHOR, Chinaper cwt.	107	3 6	••	0	3		90 0
Japan ,,	110	ő	••	ŏ	ő	0 0	0 0
Refin. Eng. per lb.	1	6	••	1	7	1 4	0 0
CANTHARIDES	1	8	••	100	6	1 6 8	4 5 30 0
CASTOREUM per lb	12	0	• •	100 26	0	0.0	0 0
CASTOREUMper lb. DRAGON'S BLOOD, lp. p. cwt.		ő	••	220	ŏ		2) 0.
FRUITS AND SEEDS (see al	so S€		and	Spice	s).		
Anise, China Star per cwt.	93	0	••	105	0	00 0 0	35 0 32 0
Spanish, &c. ,, Beans, Tonquinper lb.	38	6	••	40 6	9	4 6	7 6
Cardamoms, Malabar			•••				
good ,,	8	0	• •	9	6	6 0	7 0
inferior ,,	3	9 6	• •	7 9	6 6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5 10 6 6
Aleppy ,, Madras ,,	1	6	••	7	0	2 8	4 6
Ceylon ,,	2	6		5	7	3 6	
Cassia Fistulaper cwt.	38	0		40	0		4 9
						7 0	57 U
Cocculus Indicus	8	6	••	9	0	7 3	9 0
Colocynth, apple per lb.	0	10	::	9	8	7 3	57 0 9 0 1 0
Colocynth, appleper lb. Croton Seedsper cwt.			::	9		7 3 0 8 31 0 3	9 0
Coloeynth, appleper lb. Croton Seedsper cwt. Cubebs, Cummin,	$\begin{array}{c} 0 \\ 52 \\ 70 \\ 40 \end{array}$	10 6 0 0	::	9 1 0 75 45	8 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 0 1 0 33 0 40 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs , Cummin , Fenugreek ,,	$\begin{array}{c} 0 \\ 52 \\ 70 \\ 40 \\ 9 \end{array}$	10 6 0 0 0		9 1 0 75 45 13	8 0 0 0	7 3 0 8 31 0 3 37 0 4 45 0 5	57 0 9 0 1 0 33 0 40 0 50 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs , Cummin , Fenugreek , Guinea Grains ,	$\begin{array}{c} 0 \\ 52 \\ 70 \\ 40 \\ 9 \\ 42 \end{array}$	10 6 0 0 0		9 1 0 75 45 13 44	8 0 0 0 0	7 3 0 8 31 0 3 37 0 4 45 0 5 0 0	57 0 9 0 1 0 33 0 40 0 5) 0 0 0
Coloeynth, appleper lb. Croton Seedsper cwt. Cubebs	$\begin{array}{c} 0 \\ 52 \\ 70 \\ 40 \\ 9 \end{array}$	10 6 0 0 0		9 1 0 75 45 13 44 0 10	8 0 0 0 0 0	7 3 0 8 31 0 4 45 0 5 0 0 29 0 3 6 7 6 1	57 0 9 0 1 0 33 0 40 0 50 0 0 0 0 0 6 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs , , , Cummin , , Fenugreek , , Guinea Grains , , Juniper Berries , Nux Vomica , , Tamarinds, East India,	0 52 70 40 9 42 0 8	10 6 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10	8 0 0 0 0 0 0 0	7 3 0 8 31 0 3 37 0 4 45 0 5 0 0 0 29 0 3 6 1 12 0 1	57 0 9 0 1 0 33 0 40 0 50 0 0 0 0 0 6 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs , ,, Cummin , ,, Fenugreek , ,, Guinca Grains , , Juniper Berries ,, Nux Vomica. , ,, Tamarinds, East India, West India ,,	0 52 70 40 9 42 0 8 11	10 6 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18	8 0 0 0 0 0 0 0	7 3 0 8 31 0 3 37 0 4 45 0 5 0 0 0 29 0 3 6 7 6 1 12 0 1 22 0 3	57 0 9 0 1 0 33 0 40 0 50 0 0 0 0 0 6 0 11 0 19 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs , , , , , , , , , , , , , , , , , , ,	0 52 70 40 9 42 0 8 11 11 23	10 6 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 32	8 0 0 0 0 0 0 0	7 3 0 8 31 0 4 45 0 5 0 0 0 29 0 3 6 7 6 1 12 0 1 22 0 2 20 0 2	57 0 9 0 1 0 13 0 40 0 50 0 0 0 0 0 0 0 6 0 11 0 19 0 80 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. " Cummin " Fenugreek ", Guinea Grains ", Juniper Berries ", Nux Vomica. " Tamarinds, East India, West India Vanilla, large per lb. inferior ",	0 52 70 40 9 42 0 8 11	10 6 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18	8 0 0 0 0 0 0 0 0 0	7 3 31 0 3 37 0 4 45 0 5 0 0 5 122 0 1 122 0 1 220 0 2 12 0 1 0 5½	57 0 9 0 1 0 33 0 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Coloeynth, appleper lb. Croton Seedsper cwt. Cubebs	0 52 70 40 9 42 0 8 11 11 23 12 0 60	$\begin{array}{c} 10 \\ 6 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 5\frac{1}{2} \\ 0 \\ \end{array}$		9 1 0 75 45 13 44 0 10 17 18 32 27 0 68	8 0 0 0 0 0 0 0 0 0 0 7 1 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 0 1 0 1 0 50 0 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs , , , , , , , , , , , , , , , , , , ,	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 32 27 0 68 58	8 0 0 0 0 0 0 0 0 0 0 0 0 7 <sup>1</sup> / <sub>2</sub>	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 0 1 0 1 0 60 0 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34 4	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 32 27 0 68 58	8 0 0 0 0 0 0 0 0 0 0 0 7 1 2 0 0 3	7 3 31 0 31 0 45 0 29 0 3 6 7 6 112 0 122 0 20 0 3 0 3 0 0 3 0 0 3 0 0 3 0 0 3 0 0 3 0 0 3 0 0 4 3 0	57 0 9 0 13 0 40 0 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. " Cummin " Fenugreek ", Guinca Grains ", Juniper Berries ", Nux Vomica. " Tamarinds, East India ", West India ", Vanilla, large per lb. inferior ", Ginger, Preserved Honey, Chili per cwt. Jamaica per lb. ISINGLASS, Bružil ",	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 32 27 0 68 58	8 0 0 0 0 0 0 0 0 0 0 0 0 7 <sup>1</sup> / <sub>2</sub>	7 3 31 0 31 0 31 0 345 0 29 0 29 0 21 0 112 0 122 0 30 0 30 0 2 6 2 6 3 6	57 0 9 0 1 0 1 0 10 0 60 0 60 0 11 0 9 6 0 0 11 0 9 6 10 0 9 6 11 0 11 0 9 6 11 0 9 6 11 0 9 6 11 0 11 0 11 0 11 0 11 0 11 0 11 0 11
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. " Cummin " Fenugreek " Guinca Grains " Juniper Berries " Nux Vomica. " Tamarinds, East India " Varilla, large per lb. inferior " GINGER, Preserved " HONEY, Chili per cwt. Jamaica per lb. ISINGLASS, Bruzil " Tongue sort " East India " Fast India " Fast India "	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34 4 2 2	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 32 27 0 68 58 5 5	8 0 0 0 0 0 0 0 0 0 0 0 6 7½ 0 3 1 4 8	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 0 1 0 33 0 40 0 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs per cwt. Cubebs per cwt. Cubebs per cwt. Cummin per cwt. Fenugreek per lb. Guinca Grains puriper Berries puriper Berries puriper Berries puriper Berries per lb. Tamarinds, East India, West India per cwt. Jamaica per lb. ISINGLASS, Brazil. per cwt. Jamaica production per cwt. Jamaica per lb. ISINGLASS, Brazil. per lb. ISINGLASS, Brazil. per lb. West India per lb.	0 52 70 40 9 42 0 8 11 11 23 12 0 60 31 4 2 2 0 3	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 32 27 0 68 58 5 5	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 1 1 4 8 0 0 1 1 4 8 0 0 1 1 1 4 8 1 1 4 8 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 3 31 0 31 0 31 0 45 0 29 0 29 0 12 0 12 0 12 0 12 0 12 0 13 6 14 3 2 6 3 6 1 6 3 9 4 9 3 6 1 6 3 9 3 9	57 0 9 0 1 0 13 0 10 0 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs per cwt. Cubebs per cwt. Cummin per cwt. Gungarek per lb. Gungarek per lb. Juniper Berries per lb. Juniper Berries per lb. Inferior per cwt. Jamaica per lb. Jamaica per lb. Isinglass, Brazil per lb. Isinglass, Brazil per lb. West India per cwt. Jamaica per lb. Isinglass, Brazil per lb. West India per lb. Isinglass, Brazil per lb. West India per lb. Isinglass, Brazil per lb. West India per lb. Russ. long staple	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34 4 2 2	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 0 10 17 18 832 27 0 68 58 5 5 4 5 10 0	8 0 0 0 0 0 0 0 0 0 0 0 6 7½ 0 3 1 4 8	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 9 0 13 0 140 0 150 0 15
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs " Cummin "Fenugreek " Guinea Grains " Juniper Berries " Nux Vomica " Tamarinds, East India," West India " Vanilla, large per lb. inferior " GINGER, Preserved " HONEY, Chili per cwt. Jamaica " IPECACUANHA per lb. ISINGLASS, Brazil " Tongue sort " East India " West India " West India " West India " West India " Russ. long staple " inferior " Simovia	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34 4 2 2 0 3 16 0 17	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 755 445 13 444 0 0 10 17 18 32 27 7 0 68 58 5 5 5 5 5 4 5 5 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 9 0 13 0 10 0 10 0 10 0 10 0 10 0 10 0 11 0 10 0 11 0 10 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. " Cummin " Fenugreek " Guinea Grains " Juniper Berries " Nux Vomica. " Tamarinds, East India, " West India " Vanilla, large per lb. inferior " GINGER, Preserved " HONEY, Chili per cwt. Jamaica " IPECACUANHA per lb. ISINGLASS, Bruzil. " Fast India " West India " Russ. long staple " inferior " Simovia JALAP, good " "	0 52 70 40 9 42 0 8 11 12 3 12 0 6 3 3 4 2 2 0 6 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 44 0 10 17 18 82 27 0 68 55 5 5 5 4 5 10 0 0 0 0 10 0 10 0 0 10 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 3 3 1 0 3 1 0 3 1 0 3 1 0 3 1 0 5 0 0 0 2 0 0 3 6 7 6 1 12 0 1 22 0 2 12 0 2 12 0 3 0 0 3 35 0 4 4 3 3 6 1 6 3 9 1 6 6 0 0 1 6 0 11	57 0 9 9 0 13 0 10 0 10 0 10 0 10 0 10 0 10 0 11 0 10 0 11 0 10 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs "" Cummin "" Fenugreek "" Guinca Grains "" Juniper Berries "" Nux Vomica. "" Tamarinds, East India, West India "" Vanilla, large per lb. inferior "" GINGER, Preserved HONEY, Chili per cwt. Jamaica "" IPEGACUANHA per lb. ISINGLASS, Brazil "" Tongue sort "" East India "" West India "" West India "" Russ. long staple "" inferior "" Simovia  JALAP, good "" infer. & stems ""	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34 4 2 2 0 60 0 11 11 0 0 0 0 0 0 0 0 0 0 0 0 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 44 32 27 0 68 55 5 5 5 4 5 5 10 0 0 0 0 2 17 10 10 10 10 10 10 10 10 10 10 10 10 10	8 0 0 0 0 0 0 0 0 0 0 0 0 6 7½ 3 1 4 8 0 6 6 5 5 11	7 3 3 1 0 3 1 0 3 1 0 3 1 0 3 1 0 3 1 0 5 0 0 2 0 0 2 0 0 1 2 0 1 0 5 ½ 3 6 1 6 3 9 1 6 3 9 1 6 1 6 1 6 0 9 9 ½ 1 1 0 9 9 ½	57 0 9 9 0 13 0 10 0 10 0 10 0 10 0 10 0 10 0 11 0 10 0 11 0 10 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. "Cummin "Fenugreek", Guinca Grains "Fenugreek", Juniper Berries "Mux Vomica. "Tamarinds, East India, West India "Vanilla, large per lb. inferior "GINGER, Preserved "Honey, Chili per cwt. Jamaica per lb. ISINGLASS, Bruzil "Fest India "West India "Russ. long staple "Inferior "Simovia JALAP, good "Simovia JALAP, good "Simovia JALAP, good "LEMON JUICE "Per degree	0 52 70 40 9 42 0 8 11 11 23 12 0 60 34 42 2 2 2 0 3 6 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75545 13344 0 0 100177 1882 277 0 68855 5 5 5 5 10 0 2 2 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 9 9 0 13 0 10 0 10 0 10 0 10 0 10 0 10 0 11 0 10 0 11 0 10 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs per cwt. Cubebs per cwt. Cubebs per cwt. Cummin per cwt. Guinea Grains puniper Berries puniper Berries puniper Berries puniper Berries puniper Berries per lb. Interior per cwt. Jamaica per lb. Isinglass, Brazil per cwt. Jamaica per lb. Isinglass, Brazil per cwt. Tongue sort per lb. Isinglass, Brazil per lb. Jamaica per lb. Isinglass, Brazil per lb. Jamaica per lb. Isinglass, Brazil per cwt. Linguiter. Jamaica per lb. Jamaica per lb. Jamaica per lb. Linguiter. Jamaica per lb.	0 52 70 40 9 42 0 8 11 11 12 3 4 2 2 0 6 3 3 4 4 2 0 6 0 3 1 1 1 0 0 1 1 1 0 0 0 1 1 1 0 0 0 1 1 1 0 0 0 0 0 1 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 3 44 4 0 10 11 77 18 8 32 27 7 6 8 8 5 5 5 5 10 0 0 2 2 1 1 0 0 0 1 1 36 6 8 1 1 36 6 8 1 1 36 6 8 1 1 36 6 8 1 1 1 36 6 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 0 1 0 0 1 1 0 0 1 1 1 0 0 1 1 1 8 0 0 1 1 1 8 0 0 1 1 1 8 0 0 1 1 1 8 0 0 0 0
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs per cwt. Guinea Grains per cwt. Juniper Berries purches per cwt. Juniper Berries purches per lb. Inferior per lb. Inferior per cwt. Jamaica per lb. Isinglass, Brizzil per cwt. Jamaica per lb. Isinglass per lb. Isin	0 52 70 40 9 42 0 8 8 11 11 23 12 0 34 4 2 2 2 2 0 3 1 1 1 1 0 0 3 1 1 1 1 1 1 1 1 1 1 1	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 4 4 0 10 17 18 8 22 27 7 0 68 5 5 5 5 4 4 5 5 10 0 0 2 1 1 0 0 3 3 3 3 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 0 0 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs "" Cummin "" Fenugreek "" Guinca Grains "" Juniper Berries "" Nux Vomica. "" Tamarinds, East India," West India "" Vanilla, large per lb. inferior "" GINGER, Preserved HONEY, Chili per cwt. Jamaica "" IPECACUANHA per lb. ISINGLASS, Brazil. " Tongue sort "" East India "" West India "" LINGLASS, Brazil. "" Inferior "" JALAP, good ""	0 52 70 40 9 42 0 8 11 11 23 12 0 60 31 4 2 2 2 0 0 11 11 11 2 3 12 0 11 11 11 11 12 12 12 12 12 12 12 12 12	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 40 0 100 177 18 8 32 277 0 688 5 5 5 4 4 5 5 100 0 11 366 30 0 0 0	\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. " Cummin "Fenugreek", Guinea Grains " Juniper Berries " Nux Vomica. " Tamarinds, East India " West India " Vanilla, large per lb. inferior " GINGER, Preserved " HONEY, Chili per cwt. Jamaica " IPECACUANHA per lb. ISINGLASS, Bruzil. " Tongue sort " East India " West India " Russ. long staple " inferior " Simovia JALAP, good " junferior " JALAP, good " junferior " junfer & stems " LEMON JUICE per degree LIME JUICE " LEMON JUICE " JERMON JUICE " JERMON JUICE " JERMON JUICE " JERMON JUICE " LEMON JUICE " JERMON JUICE " LEMON JUICE " JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JUICE "   JERMON JU	0 52 70 40 9 42 0 8 11 12 3 12 0 60 33 4 2 2 2 0 0 1 1 1 1 1 2 3 3 6 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 0 0 0 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 45 45 45 45 55 5 5 4 4 5 5 5 5 5	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	57 0 0 0 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. "Cummin "Fenugreek", "Guinea Grains "Juniper Berries "Nux Vomica. "Tamarinds, East India "Vanilla, large per lb. inferior "GINGER, Preserved "Honey, Chili per cwt. Jamaica "Fenugreek", Lindia "West India "Fenugreek", "Feat India "West India "Russ. long staple "inferior "Simovia Jalapa, good "Simovia Julice per degree Lindia Julice per degree Lindia Julice per degree Lindia Julice per gall. Liquonice, Spanish per cwt Liquorice Root "Manna, fiaky per lb. small "Mosk, Pod. "per oz. Grain "	0 52 70 40 9 42 0 8 11 11 23 12 0 60 31 4 2 2 2 0 0 11 11 11 2 3 12 0 11 11 11 11 12 12 12 12 12 12 12 12 12	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 75 45 13 44 40 0 100 177 18 8 32 277 0 688 5 5 5 4 4 5 5 100 0 11 366 30 0 0 0	\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs "" Cummin "" Fenugreek "" Guinea Grains "" Juniper Berries "" Nux Vomica. "" Tamarinds, East India "" West India "" Vanilla, large per lb. inferior "" GINGER, Preserved "" HONEY, Chili per cwt. Jamaica "" IPECACUANHA per lb. ISINGLASS, Bruzil "" West India "" Inferior "" Simovia JALAP, good "" junfer & stems "" LEMON JUICE per degree LIME JUICE per gall. LIQUONICE, Spanish per cwt Liquorice Root "" MANNA, flaky per lb. Small "" MUSK, Pod per oz. Grain "" OILS (see also separate list)	0 52 70 40 9 42 0 8 11 11 12 3 4 2 2 2 0 0 3 6 0 3 1 1 1 1 2 0 0 0 0 1 1 1 0 0 0 0 1 1 1 0 0 0 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 0 755 455 444 0 0 177 188 558 55 4 4 5 5 10 0 0 116 30 0 0 606 68	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs "" Cummin "" Fenugreek "" Guinca Grains "" Juniper Berries "" Nux Vomica. "" Tamarinds, East India," West India "" Vanilla, large per lb. inferior "" GINGER, Preserved HONEY, Chili per cwt. Jamaica "" IPECACUANHA per lb. ISINGLASS, Brazil "" Tongue sort "" East India "" West India "" LINGLASS, Brazil "" Tongue sort "" East India "" West India "" West India "" West India "" LEMON JUICE "" JALAP, good ""	0 52 70 40 9 42 0 8 11 11 23 12 0 34 22 0 34 22 0 31 11 0 0 11 0 0 0 11 0 0 0 0 0 0 0 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 1 0 755 445 13 144 44	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	77 0 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 1 0 0 1 1 1 1 1 0 1
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs. " Cummin "Fenugreek", Guinea Grains " Juniper Berries " Nux Vomica. " Tamarinds, East India " West India " Vanilla, large per lb. inferior " GINGER, Preserved " HONEY, Chili per cwt. Jamaica "PECACUANHA" per lb. ISINGLASS, Bruzil. " Tongue sort "East India " West India " West India " Russ. long staple " inferior " Simovia JALAP, good " juferior " JALAP, good " juferior " juferior " JALAP, good " juferior "	0 52 70 40 9 42 0 8 11 11 12 3 4 2 2 2 0 0 3 6 0 3 1 1 1 1 2 0 0 0 0 1 1 1 0 0 0 0 1 1 1 0 0 0 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 1 0 75 45 31 31 44 4 4 4 4 4 4 4 4 5 5 5 5 5 10 0 0 11 36 30 0 0 60 60 68 8 0 0 0 0 0 0 0 0 0 0 0 0	\$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Coloeynth, apple per lb. Croton Seeds per cwt. Cubebs "" Cummin "" Fenugreek "" Guinca Grains "" Juniper Berries "" Nux Vomica. "" Tamarinds, East India," West India "" Vanilla, large per lb. inferior "" GINGER, Preserved HONEY, Chili per cwt. Jamaica "" IPECACUANHA per lb. ISINGLASS, Brazil "" Tongue sort "" East India "" West India "" LINGLASS, Brazil "" Tongue sort "" East India "" West India "" West India "" West India "" LEMON JUICE "" JALAP, good ""	0 52 70 0 9 42 2 0 8 11 11 2 3 2 2 0 3 4 4 2 2 2 2 0 0 0 11 1 1 1 2 3 2 3 0 0 0 17 3 0 2 2 0	10 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 1 1 0 755 445 13 144 44	8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	77 0 1 1 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1

	1880.	1879.	1880.	1879.
Essential Oils:	s. d. s. d.	s. d. s. d.	Oils, continued:- £ s. £ s.	£ s. £ s.
Almondper lb. Anise-seed	30 0 to 0 0 8 9 0 0	20 0 to 0 0 9 9 10 0	Boby per tun 0 0 to 0 0 Cob , 27 0 27 10	0 0 to 0 0 28 0 U 0
Rergamot	8 0 10 0	0 0 0 0	WHALE, South Sea, pale ,, 26 0 27 0	29 0 0 0
Cajcputper bottle	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3 6 4 0	yellow ,, 25 0 0 0 brown ,, 20 0 21 0	27 0 28 0 25 0 26 0
Carawaypcr lb.	4 9 5 0	2 10 3 0	East India, Fish, 0 0 0 0	0 0 26 0
<ul> <li>Cinnamonper oz.</li> </ul>	2 2 5 0	4 9 5 6	Olive, Galipoliper ton 0 0 0 0	0 0 0 0
Cinnamon-leaf ,.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Gioja, 46 0 46 10 Levant, 45 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Citronclle ,,	9 0 0 0	8 9 0 0	Mogador , 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Ginger Grass ,.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 21 0 3	Spanish , 48 0 0 0	45 0 46 0
Lavender Exotrer lb. Mitcham ,,	110 0 0 0	0 0 0 0	Sicily ,, 46 0 46 10 Cocoanut, Cochin. ,, 39 0 40 0	46 0 0 0
Lemon,	3 0 5 6	4 0 8 0	Ceylon ,, 36 0 0 0	44 10 0 0
Lemongrass per oz. Neroli	0 4 0 5	0 2½ · · 0 3 3 0 · · 6 6	Mauritius ,, 37 0 0 0 GROUND NUT AND GINGELLY:	44 0 0 0
Nutmeg	$0  2\frac{1}{4} \dots  0  2\frac{1}{2}$	0 3 0 4	Bombay 0 0 0 0	0 0 0 0
Orangeper lb.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Madras 0 0 0 0 PALM, fine 36 10 0 0	36 0 0 0
Otto of Rosesper oz. Patchouli	0 0 0 0	$\begin{bmatrix} 21 & 0 & \dots & 35 & 0 \\ 1 & 6 & \dots & 3 & 0 \end{bmatrix}$	LINSEED 28 5 0 0	24 5 24 10
Peppermint:	15 0 14 0	10 0 12 6	RAPESEED, English, pale 31 0 0 0	32 0 32 5
Americanper lb. (H. G. Hotchkiss),,	16 6 0 0	0 0 0 0	brown 29 10 30 0 Foreign, pale 0 0 0 0	30 0 30 0
English ,,	39 0 0 0	21 0 23 0	brown 0 0 0 0	0 0 0 5
Japan,	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	COTTONSEED 29 0 30 0 LARD 41 10 44 0	26 0 0 0 35 0 36 0
Rosemary,	3 0 3 9	2 0 2 3	TALLOW 0 0 0 0	31 0 35 0
Spearmint	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 0 0 0	TURPENTINE, American, cks. 34 6 0 0	s. d. s. d. 21 6 a 0 0
Thyme, Mace, expressedpcr oz.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0 0 0 0	TURPENTINE, American, cks. 34 6 0 0 French ,, 0 0 0 0	0 0 0 0
OPIUM, Turkey per lb.	16 0 18 0	15 0 17 0	PETROLEUM, Crude 0 0 0 0	0 0 0 0
infcrior ,,	14 0 15 6	13 0 14 6	refined, per gall. $0   6\frac{1}{8}   0   6\frac{1}{4}$ Spirit $0   7\frac{1}{4}   0   7\frac{3}{4}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Quassia(bitter wood)per ton	0 0 0 0	100 0 130 0	SEEDS.	l
RHUBARB, China, good and	2 6 4 0	16 30	CANARYper qr. 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
fineper lb. Mid. to ord,	0 9 2 0	0 9 1 4	CARAWAY, English per cwt. 0 0 0 0 German, &c 32 0 38 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Dutch Trimmed ,,	0 0 0 0	0 0 0 0	CORIANDER 14 0 22 0	15 0 20 0
ROOTS-Calumba per cwt.	45 0 50 0 28 0 30 0	35 0 60 0 0 0 0 0	HEMPper qr. 30 0 44 0 LINSEED English , 60 0 68 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Chirettaper lb.	0 21 0 4	0 0 0 0	Black Sea & Azof 54 6 55 0	45 9 0 0
Galangalper cwt.	23 0 . 24 0	22 0 26 0 18 0 20 0	Calcutta ,, 57 9 58 0 Bembay ,, 59 0 0 0	45 9 0 0 46 0 46 6
Gentian	16 0 20 0 15 0 25 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	St. Petrsbrg., 53 0 51 0	46 0 46 6 45 0 47 6
Pellitory ,,	0 0 0 0	70 0 76 0	Mustard, brownper bshl. 12 0 16 0	14 0 17 6
Pinkper lb.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 0 0 0 0 0 0 5	White ,, 5 0 10 0 POPPY, East India, per qr. 53 6 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Rhatany,	2 1 2 3	2 4 2 0	SPICES.	. 25 .0 25
Snake,	0 0 0 0	0 10 1 0	CASSIA LIGNEA per cwt. 54 0 60 0	38 0 50 0
SAFFRON, Spanish ,,	20 0 44 0 120 0 160 0	$\begin{bmatrix} 20 & 0 & \dots & 40 & 0 \\ 140 & 0 & \dots & 200 & 0 \end{bmatrix}$	Vera ,, 30 0 45 0 Buds , 72 6 0 0	22 0 36 0 53 0 54 0
SARSAPARILLA, Lima per lb.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 4½ 0 6	Buds ,, 72 6 0 0 CINNAMON, Ceylon:	53 0 51 0
Guayaquil,	1 1 1 5	1 3 1 5	1st quality per lb. 1 6 3 5	1 4 3 .3
Honduras ,,	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 0 :: 1 4	2nd do ,, 1 4 2 2 3rd do ,, 1 3 1 9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
SASSAFRAS per cwt. SCAMMONY, Virgin per lb.	0 0 0 0	9 0 11 0	Tellicherry , 0 0 0 0	1 6 . 2 4
SCAMMONY, Virgin per lb. second & ordinary ,,	30 0 36 0 10 0 25 0	0 0 0 0	Chips	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
SENNA, Bombay	0 11 0 9	0 0 0 0	Amboyna , 1 4 1 6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Tinnivelly,	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{bmatrix} 0 & 2 & \dots & 1 & 7 \\ 0 & 4 & \dots & 1 & 6 \end{bmatrix}$	Zanzitar , 1 2 1 3	1 3 1 5
Alexandria,	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	14 00	Ginger, Jam., fine per cwt. 110 0 200 0 Ord. to good , 60 0 1(5 0	90 0 200 0
American,	1 11 0 0	1 3 0 0	African ,, 24 0 25 0	21 0 22 0
SQUILLS,	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0 3 0 4\frac{1}{4}. £ s. £ s.	Bengal, 22 0 0 0 Malabar, 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Ammoniaci drop per cwt.	1 12 2 0	2 0 2 2	Cochin ,, 30 0 120 0	46 0 125 0
ANIMI, fine washed ,,	19 0 23 0 13 0 16 15	9 0 12 0	PEPPER, Blk, Malabar, rerlb. 0 4½ 0 4¾ Singapore, 0 4½ 0 4½	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
ARABIC, pale picked ,,	3 0 3 10	2 15 3 5	white Tellicherry ,, 0 0 0 0	0 10 ., 1 4
srts.,md.to fin. ,,	2 0 2 18	$\frac{2}{2}$ $\frac{2}{14}$	Cayenne ,, 0 8 2 0	1 4 3 1
TUBKEY, pick.gd. to fin. ,, second & inf. ,,	7 0 10 0 3 10 5 10	3 5 5 5	2nd and interior , 1 2 1 8	1 0 1 7
sorts ;	2 10 3 2/6	2 5 2 10	NUTMEGS, 78 to 60 to 1b 3 9 . 4 9	3 8 5 0
Assarcetida,cm.to fin ,, Benjamin,1st & 2nd ,,	0 12 3 12 15 0 45 0	1 8 3 0	132 to 95 ,, ,, 2 3 2 11	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	s. d. s. d.	s. d. s. d	PIMENTA 0 5 0 0	0 5 0 0
COPAL, Sierra Leone, per lb. Manillaper cwt.	0 0 0 0 38 0 65 0	$\begin{bmatrix} 0 & 7\frac{1}{2} & & 0 & 10 \\ 16 & 0 & & 25 & 6 \end{bmatrix}$	VARIOUS PRODUCTS.	
DAMMAR, pale ,,	100 0 107 6	72 6 0 0	CCCHINEAL— Honduras, blackper lb. 0 0 0 0	2 0 2 5
EUPHORBIUM ,,	0 0 0 0	9 10 15 0	,, silver ,, 0 0 0 0	2 0 2 3
GALBANUM per lb. GAMBOGE, pckd. pipe per cwt.	$\begin{bmatrix} 0 & 6 & \dots & 1 & 2 \\ 300 & 0 & \dots & 400 & 0 \end{bmatrix}$	267 6 . 275 0	Mexican, black, 3 1 3.3	. 2 0 . 0 0
GUAIACUM per lb.	0 8 2 1	1 0 2 0	", silver, 2 11 3 0 Teneriffe, black, 3 0 3 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Kinoper cwt.	60 0 100 0 50 0 80 0	65 0 90 0 20 0 45 0	,, silver ., , 3 0 ., 3 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
sclected "	125 0 215 0	122 6 172 6	SOAP, Castileper cwt. 30 0 0 0 SOY, Chinaper gall. 2 10 3 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
MASTIC, pickedper lb. MYRRH, gd. & fine per cwt.	3 6 4 6	3 0 3 6 150 0 170 0	TERRA JAPONICA—	
ord. to fair ,,	100 0 175 0	60 0 150 0	Gambierper cwt. 18 6 18 9 Free cubes , 25 0 27 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
OLIBANUM, p. drop ,,	89 0 91 0	59 0 66 0	Cutch ,, 34 0 39 0	21 0 24 0
SENEGAL	75 0 80 0 57 6 60 0	0 0 0 0	WAX, Bres, English , £0 0 . £0 0	£0 0 0 0
SANDARAC,	70 0 110 0	60 0 110 0	Jamaica , 5 10 7 0 East India , 5 0 6 0	6 0 6 10
T 2	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	70 0 87 0 65 0 69 0	VEGETABLE, Japan ,, 4 0 4 5	3 0 3 5
THUS,	0 0 0 0	20 0 21 6	WOOD, DYE, Barperton 4 0 4 5	3 10 3 15
TRAGACANTH, leaf ,,	200 0 260 0	240 0 400 0 65 0 175 0	Cam	18 0 28 0
IL3.	40 0 180 0 £ s. £ s.	£ s. £ s.	Fustic, Cuba , 0 0 0 0	8 0 8 10
SEAL, paleper tun	30 0 0 0	28 10 29 0	Logwood, Campeachy, 7 15 8 10	8 5 8 10
yellow to tinged ,, brown	27 0 29 10 25 0 0 0	$\begin{bmatrix} 25 & 0 & \dots & 28 & 0 \\ 24 & 0 & \dots & 26 & 0 \end{bmatrix}$	Jamaica , 6 0 6 10	5 10 5 15
SPERM	69 0 70 0	60 0 0 0	Lima, first pile , 14 0 16 0 Bed Sanders , 6 10 6 15	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			, , , , ,	

#### TRADE REPORT.

THE year 1879 closed on the whole satisfactorily in a commercial sense, though with no assurance of prosperity. An increase of imports to the extent of nearly 9,000,000*l*, in value over the corresponding month of 1878 showed that a good deal of activity had prevailed in the home trade during the last month, whilst exports exhibited the promising advance of nearly 2,000,000*l*. It must be remembered, however, that we are now importing at much higher prices than last year larger quantities of cereals and articles of food, which have to be paid for out of the wealth of the country. It is also to be observed that the balance of trade against us is widely extending, and it may be open to question whether the usually estimated sources of wealth from foreign investments are sufficient to keep our national trade in a healthy condition.

The following figures for the year 1879 are taken from the Trade and Navigation Reports of the Board of Trade:—

#### Imports.

			Quantities					
Principal	Artieles		Year	Year ended December 31				
			1877	1878	1879			
Alkali Pernyian bark Chemical mannfae	tures and	ewt.	89,957 24,936	53,490 51,746	72,529 60,878			
products unenum Cochineal Indigo		,,	£2,094 60,5.9	29,648 65,498	26,722 80,06+			
Madder Root		"	19,563 19,148	21,912 11,078	13,742 7,720			
Garancine On.— Train, blubber, a	nd sper-	,,	8,875	2,790	1,739			
maceti Palm		tuns ewt.	19,418 8 :7,264	20,570 658,2 4	20,183 869,375			
Coecanut Olive Seeds, of all kind	 s	turs	191,052 31,146 14,918	92,808 20,593 12,860	200,062 26,012 15 952			
Turpentine Perroleum— Crude and refined		ewt.	257,318	322,888	257,457			
Quieksilver Saltpetie	1	lbs. ewt.	184,09 6 3,594,961 268,296	119,169 3,232,618 279,841	170,831 3,979.682 304,312			
Cinnamon		lbs.	1 384,229 51,964	1,535,049	1,434,519			
Pepper		lbs.	28,835,548	55,976 24,390,404	61.947 17,517,693			

	Values Year ended December 31					
Princ pal Articles						
	1877	1878	1879			
Alkali	£	£	£			
	102,746	63,401	76,117			
Peruvian tark Chemical manufactures and pro-	402,234	€58,228	973,163			
ducts unenumerated	1,056,175	999,099 346,546	886,307 347,157			
Indigo	1,656,345	1,583,207	1,900,983			
	33,827	24,0±9	15,424			
Root	19,206	10,723	7,214			
	71,897	8,721	4,663			
Train, tlubber, and spermaceti	758,438	809,205	586,635			
	1,518,166	1.144,562	1,321,368			
Cocoanut	374,912	201,722	358 089			
	1,488,293	1,028,028	1,171,270			
Seeds, of all kinds	571.222	470,490	509,296			
	324,576	356,778	290,694			
Petroleum— Crude and refined	1.77.,239	1,211,870	1,380,770			
Quicksilver Saltpetre	263 042	202,919	344,401			
	298,351	295,121	290,365			
SPICES— Cinnamou	121.754	127,112	111.198			
Ginger	115,723	121,026	146,652			
	591,931	375,741	272,288			

#### Re-exports of Foreign Produce.

					Quantities		
Principal Articles				Year ended December 31			
,				1877	1878	1879	
Bark, Peravian Coehineal Indigo Ou— Coesanut Olive Pa m			cwt.	23,069 16,721 46,253 158,946 5,478 383,173	42,780 19,405 50,135 88,652 2,109 186,778	41,583 19,068 51,028 125,190 3,479 356,021	
	ined or	un-	tuns lbs. ewt. lbs.	1,579 2,261,446 27,539 1.328,557 14,907,379	3,382 2,157,461 26,288 1,300,043 18,279,890	1,440 2,153,263 31,967 1,276,935 14,355,819	

						Value			
Principal Articles					Year ended December 31				
					1877	1878	1879		
					£	£	£		
Bark, Peruv	ian				415,450	647,777	653,405		
Cochineal		. ,			222,565	236,097	247,193		
Indigo					1,259,019	1,243,690	1,314,046		
OIL-									
Coecanut					304,450	189,414	247,725		
Olive					285,747	119,635	168,544		
Palm					691,324	321,118	523,830		
Petroleum, r	efined	or u	nrefino	ed	28,761	38,028	16,503		
Quieksilver					226,739	198,5 6	180,271		
Saltpetre					31,6: 3	27,831	29,690		
SPICES-									
Cinnamon					110.717	104,145	85,526		
Pepper					264,202	285,677	225,306		
							1		

#### Exports of British and Irish Produce.

	Quantities					
Principal Articles.	Year ended December 31					
	1877	1878	1879			
Alkali ewt. Chemical products, or preparations, unenumerated	5,685,991	5,644,339 —	6,330,022			
GLASS - Bottles and manufactures of green or common glass ewt.	612,743	579,413	601,587			

	Value Year ended December 31					
Principal Articles						
	1877	1878	1879			
Alkali	£ 2,197,161	£ 1,974,633	£ 2,007,502			
Chemical products, or prepara- tions, unenumerated	1,897,734	1,892,864	2,018,327			
Bottles and manufactures of green or common glass	336,754	310,307	305,741			

The business of 1879 in drugs and chemicals was flat during the first nine months of the year, when a sudden bound in the demand for chemicals and a general contagion of speculation in the produce markets brought about remarkable change. In chemicals that improved tone has been well maintained, and they closed the year firm all round. At present soda crystals are in good demand and very firm, 4l. to 4l. 2s. 6d. being now asked, or 20s. dearcr han a year ago. Bicarb has been rather dull, but is now irmer again. Bleaching powder is firm at 8l. per ton landed. Eitric acid is again held firmly at 2s.; tartaric is also strong at 1s. 6½d. for English and 1s. 5½d. for foreign make. Both acids are held largely by speculators in the hope of forcing ap the price in the spring. Cream of tartar still tends apwards at 115s. The improved prices generally obtained for chemical manufactures are not more than the nominal calue, as in the early part of 1879 prices had fallen to such an extremely low point as to render the production quite improfitable.

Iodine.—The combination of makers is, we believe, established for another year, barring unforeseen circumstances. Large purchases have since been made at 14d., and the difficulty of obtaining it at this price has erabled some second-hand holders to obtain  $14\frac{1}{2}d$ . Iodide of potassium has been advanced 6d. Bromide, in consequence of the dearness of bromine, is also firm at 2s.

Benzoic acid is still dearer, the demand in the colour rade having cleared makers' stocks. Salicylic is 6d. per 1b. cheaper. Santonine is a little higher.

Quicksilver opened the year with an advance to 7l. 10s., but it has since relapsed to 7l. 5s.

Cinchona.—A long interval between the bark sales gave quinine makers the opportunity of a little action on the offensive, and with a sort of general unanimity they have advanced their prices. This seems to be due simply to the fact that they are generally well supplied with orders, and that there are not enough quinine-makers in the trade. English brands are at nominal quotations, as makers decline orders. At the bark sales just held enormous quantities are brought forward, but the demand was not by any means excited, though prices were fairly kept up. According to the present state of the quinine market an advance should have been made.

The gradual withdrawal of the speculative element has had a rather dragging effect on the drug markets, and a certain dulness was apparent in the first sales of the year after a three weeks' holiday. A large accumulation of produce was brought forward, but sales were not abundant.

Aloes.—Cape arriving abundantly is still easier, 41s. being about the maximum at present. Fine Barbados is still in request, and 10l. to 11l. is freely paid for fine qualities. Best socotrine sells at 7l. to 8l., and hepatic makes about the same figure.

Balsam.—Canada sells at 11d. to 1s. 1d. Capivi still maintains strong prices. Peru is still very scarce, though some manufactured is on the market at a low price. Tolu after being cheap is getting scarcer.

Camphor is still held firmly in strong hands at the high prices previously quoted.

Cardamoms were very firmly held at the close of the year, but at the sales buyers were not so eager, and slight concessions had to be made. Very high prices, however, are still made for finest qualities.

Cubebs now realise 75%, and are in short supply. This is an advance of about cent. per cent. over the beginning of 1879.

Honey is genuinely dear on account of the small stocks of fine qualities. Chilian held at 66s., Jamaica at 56s.

Jatap is again somewhat lower, but is still higher than it stood at before the speculative movement took place.

Opium has developed quite a flat tendency, buyers not coming forward and speculators in some instances getting

tired of holding. Druggists' sorts are 1s. cheaper than last month.

Castor oil remains steady at fair prices. Cod-liver oil is hardening, as the stock is getting exhausted and the demand is good.

Guinea grains, which have touched 60s., have now arrived and have sold down to 38s.

Essential Oils.—Aniseed shows a slight decline since the beginning of the year. Bergamot is advancing. Cassia is also advancing. An extra export duty has been placed on this in China, and stocks are reported from thence as low. Citronelle and ginger-grass are both dearer. English lavender and peppermint are not likely to recede till the next crop comes forward, and American peppermint is quite likely to advance still further. H. G. Hotchkiss's make is now selling at 15s. 6d. Sassafras is again easier, but rosegeranium is advancing.

Shellae, after a reaction, has again experienced strong request, and is advancing. The following extract from Messrs. Reynolds & Seller's annual report concisely describes the course of events, which resulted in the extraordinary rise of more than 100 per cent. in this article in little over three months.

The 1878 crop of sticklac was, at least, one-third that of 1877. This was fully reported from Calcutta at the time, but accepted by few, previous reports often having proved so erroneous. Our stock continuing very heavy, and supplies equal to the demand, although much less than those of 1876-7, little change of consequence was noticed until the autumn, when shipments from Calcutta were practically suspended, stock began to decline, and it became known that the 1879 crop of sticklac was a partial failure. The market opened with sales of fine orange at 85s. to 87s. 6d.; good second orange at 70s. to 73s.; and garnet, free, at 61s. to 62s.; but with a good demand sales were made during January-February at 2s. 6d. to 5s. advance. Demand subsiding, the advance was lost. During April-June lower prices had to be accepted, a small parcel of rather livery diamond S second orange selling in public sale at 68s.—the lowest price of the year. In July sales to a fair extent, partly on speculative account, were made, again rising prices 5s. to 7s. 6d. Again the market became quiet, but prices were maintained. During August a good inquiry existed, and, being supported by purchases on speculative account, prices advanced. This continued through September, and then telegrams began to arrive from Calcutta announcing the partial failure of the 1879 sticklac crop, and quoting prices which seemed ridiculous. At the same time it was ascertained that America, having only a moderate stock, had actually paid advanced rates to secure the balance of the 1878 make remaining in Calcutta, amounting to about 5,000 cases only. Speculation became rife in October, home and colonial buyers being fairly represented. Prices during this month and the first fortnight in November (when telegrams concerning previous reports of the sticklac crop were received) continually rose, some days as much as 20s. per cwt., until the highest prices of the year were reached, viz.-fine orange, 10l. 5s. to 10l. 10s.; good second orange, 9l. to 9l. 7s. 6d.; garnet, free, 8l. to 8l. 2s. 6d.; block, 7l.; button, fine blood, 10l.; fine thirds, 8l. 5s. to 8l. 10s. These high prices induced the continental and home buyers to forward their reserve stocks, to secure profits. Speculative demand having somewhat subsided, prices declined about 15s., with cash sales occasionally at a greater reduction. Very few offers to arrive of this season's make have been made. Our stock is sufficient for twelve months' consumption, but with only a small supply from Calcutta, as expected, will gradually decrease; therefore prices are more likely to

advance than decline until the autumn, when the future prospects of the article depend on the next sticklac crop.

A slightly firmer tone in the market for olive oil has occurred, but the advance which has been so long anticipated is hardly likely to occur so long as buyers can obtain all they want in Italy at easy rates so forward as March, 1881, up to which period contracts are now being made. It is said, however, that the severe frosts which have occurred in Italy this winter have injured the buds, which is not unlikely.

Petroleum is down to 6½d., and it does not seem very clear what events are likely to raise it. At the beginning of last year the production was reckoned at 45,000 barrels a day; now it reaches fully 60,000 barrels. There is a stock of 8,700,000 barrels of crude in New York, against 4,300,000 a year ago. The consumption is no doubt increasing, but not in the ratio of the production. Nevertheless, a large quantity of the American stock is held by speculators who expect a rise. It is quite likely that a general improvement in trade will cause an advance of freights, which will affect the prices here, but will hardly help holders on the other side.



PHARMACY IN INDIA.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—This letter, it will be received, is written from the original fortified post of the East India Company. Although now surpassed by other Indian eities in size and importance, it still possesses large Government establishments, and is the centre of a railway system.

Since leaving Ceylon, whence my last communication was addressed, Tuticorin, Madura, and Triehinopoly have been visited, but in neither of them was a pharmaeist to be discovered. The natives doctor themselves, combining in the operation a large amount of sorcery with a small quantity of herbs, &c., while the few European residents do the best they can, in ease of great need having recourse, when no army doctor is within reach, to Colombo or Madras. In this city it is needless to say that your journal is very well known. I bave found, however, a fair number of pharmacies where The Chemist and Druggist is not received. In several eases this is a consequence of your rule not to supply it through booksellers. More than one honse has ordered it in that way, and of course has not obtained it. The enclosed orders, however, which I now send you, with those already on your list, give you every chemist and druggist in Madras except one, and before quitting India I hope as good may be reported from all its principal Your publisher will probably be grateful to the exceptional pharmacist for declining to subscribe when he knows the name to be Shunmoogum, Chetty & Co, rather an unspellable one to address. Moreover, the principal could seareely read English, and would persist that your very highclass journal was an almanaek! Alt gether his reticence is hardly to be lamented, so we will leave Lim to the tender mercies of Messrs. Burgoyne & Co., whose representative, Mr. White, is advertised in a Madras journal to arrive here shortly. We ought to have visited the Medical School here, and more than once had our horses' heads turned in that direction, but somehow we always got landed at the clubs, and as we say anything about the former we must needs pay a word of praise to the latter. The Madras Club, of which, through the kinduess of friends, I was made an honorary member, has the reputation of being the best in India, and it will take a great deal to beat it, situated as it is in the midst of a park, built expressly to catch every passing breeze, and admirably organised and managed. The Neilgherry tea was most fragrant, and the curries will be a thing to cherish in one's memory. Madras is a city of great distances, many of your subscribers living two and even three miles apart, and as the heat precludes walking after early morning, carriages are plentiful. The Government residence and European bungalows are a long way from the native part, called Black Town. Most of the pharmaeists are East Indians, i.e., from here, but not descended from natives alone; in fact, a similar class to those denominated Brugheis in Ccylon; they are well educated, and energetic for Orientals, and several have two establishments, the distances, as before explained, being too great. Some, however, are Europeans and some pure natives. What would Bloomsbury Square say to a member innocent of shoes and stockings,

lightly clad in white, with splendid brilliants in his ears, and possessing a good head and very intelligent face? Such is a brief description of your new supporter Mr. Holmes. In addition to the Medical College, Madras possesses several other educational establishments, some Governmental, others established by wealtby natives, and when the new breakwater is completed, and the fortifications, now entirely out of date, are demolished, and the land occupied by the fort turned to useful account, it may doubtless look forward to a prosperous future, in which it is to be hoped that The Chemist and Druggist will have its share.

Madras, November 27.

SIR, -Hyderabad, or, as it is now the fashion to call it, Haid gabad, is situated about halfway between Madras and Bombay. It took us two nights and one day to reach it from Madras, and, although from a pharmacentical point of view there is little to relate, the population of 400,600 only requiring three chemists and druggists for its supply, the city itself and the inhabitants proved to be so exceedingly unique that perhaps a short, very short, description from an eye witness may not be mnintcresting to your readers. The only constituent of The Chemist and Druggist in Hyderabad is Mr. Bonnevialle, while in Secunderabad it numbers two, viz., Abdull Kader and Sausmain & Co. It ought to be mentioned that there are no Europeans in the former, though the British resident and his small staff reside close to the gates. The latter contains about 2,000 British and 5,000 native British troops, and may be called a satellite, since it only exists for the former. By virtue of treaties these troops are subsidised by the Nizam of Hyderabad, and their presence is absolute'y necessary, not only for the protection of his capital from its own inhabitants, but because an outbreak there would seriously affect our dominions, which surround his on every side. Until lately no one was allowed to enter Hyderabad nnless accompanied by an armed escort, and although that is no longer considered necessary, still it is deemed advisable to apply for admission, and to view the place from the top of an elephant. It may be in the memory of some that the Prince of Wales did not visit Hyderabad, great'y to the mortification of Sir Salar Jung, on account of the uncertain temper of its inhabitants, among whom are a large number of Rchillas and semi-savage Arabs-Islamites, who have no respect for human life. We hal procured the necessary introductions to the English authorities, and were duly escorted in the Nabob's carriage to Afzal Bridge, where we mounted one of Sir Salar Jung's elephants, and, at an altitude of about 15 fe t, proceeded to view the city. It is surrounded by a wall, and contains the usual number of mosques and palaces. But what constituted the charm of the visit was the appearance and demeanour of the inhabitants. It would require a very small effort of the imagination to realise in their presence the stories of the "Arabian Nights." One of the first groups met. by us consisted of a richly-dressed Arab mounted on a white steed, the end of its tail dyed magenta [with henua] to match the satin jacket of the rider. He was preceded by a kind of trumpeter and two players on tom-toms—a species of small drum played on with the hands-and surrounded by an armed retinue. The rider himself, as well as his escort, was armed to the t eth, and when he alighted they pulled off his buff riding-boots. Now, he might have easily been Ali Baba and his retinue, the Forty Thieves; most certainly, unless their looks grievously belied them, they could readily fulfil their characters. We afterwards me; similar groups, and several elephants with various loads; also a great many palanquins, in nearly every case accompanied by armed men; indeed, every second man was armed, and the antiquity of the weapons was quite astonishing. It is doubtful if all the museums of Europe could produce such a combination-blunderluses 2 feet long, with wide months; rifles 8 feet long, mounted in silver; swords and scimitars of all shapes, mostly rusty; daggers and pistols stuck in belts: often the whole of these on one person, and, in addition, a metal or leather shield hung over the back. seen from the back of an elephant, the crowded streets, the busy shops, the immeuse variety of colour, the innumerable colours and shapes of the turbans p oduced a most fascinating effect, which will never fade from the memory of the writer, though he much fears his descriptive powers do very poor justice to the espital of the largest native Indian State.

Poona is a very busy, intensely native town. It possesses only two English pharmacists, and both subscribe to The Chemist and Druggist. Mr. Banyon, who some years since, during the editorship of Mr. J. C. Brough, occasionally contributed to your paper, is here engaged at Messrs. Treachers' (Limited), one of the largest drug stores in India. He has promised that if any interesting items e me under his notice he will send them to you. There are several native dispensaries, but these procure their supplies from Bombay, and are not, with the exception of the three principal ones, the kind of subscribers suited to The Chemist and Druggist. These three have a large practice, and have joined your subscription-list. Mr. B. Phillips haits from Pembrokeshire, and has a very flourisbing pharmacy in Poona. Indeed, he has two pharmacies, having, at the suggestion of some of the native practitioners, taken one in the native town, in addition to his original store in the European quarter. His town pharmacy is situated on a first floor over a native shop, full of most unpleasant-looking groceries. You go up a very narrow passage, then ascend a narrow, dark, steep staircase, into what at first appears to be a hay loft, but on looking round a few medicine bottles are perceptible. Mr. Phillips took this rough apology for a shop two years ago, and all the graund-floor premises being so small, deed resembling cupboards rather than sheps, he was obliged to content imself with an upper storey, for which he pays 30s, a month, inclusive of Il taxes, &c. .. He employs two dispensers, severally named Mootoo Swany, Madrassee, and Nursugrow, a Brahmin. At the time of my visit he had early reached his 16,000th prescription, and is turning over, in this new harmacy, 1001. a month, which will perhaps astonish some of your country eaders, particularly when it is added that his husiness here is almost scensively dispensing. With regard to these native dispensers, inquiry nowed that they had studied at the Byramjee Jeejeehhoy medical school ere, where, amongst other branches, dispensing and materia medica are aught, that they had failed to obtain medical certificates, and turned their equired knowledge to account as dispensers. The curriculum closely reembles that formerly described at Colombo, no certificate being required ither to practise or to dispense. Enclosed are the printed rules of the chool, and copy of native prescriptions. These are always written in inglish, though in case of need these dispensers could make up from Latin. Twelve subscribers in one Indian city is a list that you may well be roud of, but it must be remembered that Bombay is the third largest city n the British Empire, and, in addition to the English pharmacists, your ist includes the principal native members of the craft, which constitutes a ew element, and one by no means unimportant, because some of these atives do a large np-country trade, and are therefore likely to be not only arcful readers of your pages, but considerable buyers from those wholesale ouses who advertise in them. Bombay is quite a heautiful city, very diferent to any we have yet visited, and more nearly approaching the style of European cities. The hulk of business done is only surpassed by that of alcutta, and it seems to be the general impression that it is destined to upersede even that capital city in many respects, so soon as the North-Vestern system of railway is complete. Of course being nearest to England nust secure the mail service and many other advantages, and the Parsee lement, said to number 60,000 persons, possessed of remarkable commercial bilities, cannot fail to be an immense advantage.

Combay possesses several medical schools, the Grant, established in 1848 a tribute to the memory of Sir R. Grant, is supported by Government. In connection with this college is a subsidiary school for the instruction of oung men in medical science, through the Marathi and Gujerathi languages. The Gamsdjee Jeejeebhoy Hospital contains 350 bcds: the course of instruction is similar to that previously described.

Your ROVING CORRESPONDENT.

Bomhay, December 3.

Apropos of my last letter from Ceylon, the following from a Cingales planter will illustrate the Government Medical Asylum in the island :-Our Medical Wauts Ordinance is to be overhauled very soon in the Legisative Council, and the draft that has been sent out of the proposed new neasure is not by any means encouraging. The Government is prepared todo for us if we will not do for ourselves, and the horrid tax of 1 rupee an nere is likely to be persistent. In paying the medical assessment you feel as if the money was being thrown into the sea for all the good that is using done by it. I know that I have not been visited but once by our European medical officer in a business way since the Medical Ordinance came into force. On other occasions when he came it was simply to talk gossip, and eschew anything like "shop." The men who are called medical assistants "- a nondescript set, by the way-do look in at times, ask if anyone is siek, and if you say "No," seem pleased to have the early opportunity of returning. If you advise them to take a turn round the lines and find out for themselves, you are appalled with a whole list of names of siek and ailing, which is sent you with a request to send half adozen bottles and as many old pill boxes with a coolic to the dispensary next day. You get the medicine, order a parade of the sick at your bungalow, and see the medicine swallowed. Some of them are to be dosed three times a day, others twice, and so on, so you tell them to come back again. At the second muster several of the patients seem to have recovered, for they are not there, and before the medicine is half finished, or the course nearly completed, you are left alone with all these signs of man's weakness and mortality around you, and the stiff problem to solve as to what is to be done with them. Should the coolies be made to finish them? Should they be kept for the first patient that turns up? Seeing that they cost money, can they be thrown out? And a thousand other questions of this kind press upon you, until you curse the Medical Ordinance, and sigh for the old days, when you felt it to be your duty to look after your sick yourself, instead of as now obtains, leaving it to medical assistants who have not the time and caunot do it.

- 38,77. Diary Suggestions.—Chesterten recommends us to omit the Diary section altogether, and "fill up to the bung with trade recipes and notes and advertisements."
- 62/73. Solutions in Dispensing.—Mr. A. Royso, Heaton Chapel, af er favourably commenting on the Treatise on Dispensing in the Diary f r 188) suggests an addition to the section on dispensing conveniences which is of importance. He says it would be well to warn juniors in particular that in making the various solutions they should be careful to take into consideration the difference between avoirdness and apothecaries' weights. If, for instance, 5 oz. avoirdness of pot hicarb, are weighed for 20-52, solution, the latter will be weaker than it should be.

69/57. Unguentum Diachylon.—The formula given for the above in last month's CHEMIST AND DUGGIST is, I believe, the original and only one extant. It is generally followed in Austria and Germany. In preparing the nugt, diachylon care should be taken to employ an employement of the which all adherent glycerine has been carefully washed out, as otherwise great irritation is said to set in on application. If carefully made it will keep without deterioration for some months. The Swiss Pharmacopæia contains a similar formula, called Hebra's Fusssalbe, composed of

Mix by a gentle neat, and add

Ol. lavendulæ .. .. .. .. .. 20 drops Melaleuca.

Cheque.—If a person in whose favour a cheque is drawn keeps a cheque for a week without presenting it for payment, if the bank fails and the drawer had assets there sufficient to meet the cheque, the payee cannot again demand payment of the drawer, for the loss has been occasioned through the holder's default in not presenting the cheque in due time. A cheque, in fact, should be presented on the dry it is received, if place of payment and holder's residence be in the same town, or at all events it should be presented always within a day of its receipt.

81/13. Ink for Chromograph.—Subscriber.—Violet de Paris is simply the name of a particular aniline dye; it is not a compounded article. Any ordinary ink will work with the chromograph if an aniline dye be added to intensify it. Judson's auiline dyes will answer as well as any.

79/69. Dispenser.—We do not know that the list you mention is published anywhere. You could probably hear on application to the Secretary at the Hall, Blackfriars, London.

#### MACBETH-PHARMACEUTICAL VERSION.

If the subjoined communication may be trusted, the Pharmaceutica Council, with the assistance of a few friends, have been giving during the past few years representations of Shakespeare's masterpiece at the Bloomsbury Theatre, to the inteuse amusement of a large andience. Several members of the Council assumed the part of the witches with capital effect. The following extract from the text will show the slight modificacations that had to be made to adapt it to the special circumstances:—

#### ACT IV.

#### DRAMATIS PERSON.E.

Witches. The members of the Pharmaceutical Council.—Hecat. The Editor of the Pharmaceutical Journal.—Macbeth. The Editor of THE CHEMIST AND DRUGGIST.

Seeuc I. A dark cave (everything very comfortable, though). In the middle a cauldron boiling.

Minutes of the last meeting read (to represent pharmaccutical thunder)

#### Enter the Witches.

First Witch. Thrice: THE C. & D. hath growled.
Second Witch. Thrice; and once our folks have scowled.
Third Witch. Hampson cries: 'Tis time, 'tis time.
First Witch. Round about the cauldron go,
Keep alive our puppet show.
If he once should get iuside
He might scold, or perhaps deride.
Let us stick to what we've got,
And keep his fist from out our pot.

411. Double, double, toil and trouble,
Lest he come and burst the hubble.

Second Witch. Call him nasty ugly names—Anything but Truthful James.
Soy he's a bla-pheming Jew,
Or anything absurd will do,
Say he only wants to spy
So that he cau have a shy
At ns, and give us heaps of trouble,
And, like a hell-brotb, boil and bubble.

All. Double, double, toil and trouble, Lest he come and burst the bubble.

Third Watch. Think npon our interests vast How they managed in the past,
Ask what Jacob Bell would say
If he could he here to-day.
Perhaps he might—oh! horrid thought—
Publish weekly, is that naught?
Pray don't let the risk be tried,
Pray don't let him come inside.
Spite of Atkins, Symes, and Schacht
Stick we to our mystery-pot.

All. Double, double, toil and treuble Lest he come and burst the hubble.

Ent r HECATF.

Hec. O! well done. I commend your pains, But give me a bigger share of the gains, And then we'll round the eauldron sing Like children playing at kiss-in-the ring.

[Exit HECATE.

Second Witch. By the pricking of my thumbs Something wicked this way comes.

All our locks
Failed 'gainst his knocks.

Enter MACBETH.

Macbeth. How now you secret black and midnight hags,\* What is't you do?

Deeds which we will not name. A'l.Macbeth. I conjure you by that which you profess That what you do is for the trade's hest interests, That whatsoc'er ye know ye tell it me. When you let loose your lawyer to go fight Against the Stores; or ritch into some poor Unconscious huckster, who, unregistered, Has sold some paregorie drops, Ye tell it mc. Or when You draw yourselves to your maje-tie heights, And go to Parliament and upset Governments With your new bill to regulate the sale Of patent medicines you will likewise that Expound to me. And will you be so kind When you've made up your vast collective mind Upon your future schemes, to show the trade through me What wondrous heings druggists of next century may hope to be. First Wich. Say if thou wouldst rather hear it from our months Or from our masters.

Macbelh. Call them ; let me see them.

Thunder (represented by a lea ling article in the Pharmac utical Journal). Apparitions arise, one after the other, each leaner and hungrier-looking than his predecessor. Examinations are perfected, chemical classes abound, and customers fall away. The armel head represents the pharmacy militant of to day. Wounded hy his enemies, and deserted by his friends, the next appparition appears as a blo dy child. Then comes a haby, browdecked with the unsatisfying laurels of a pharmaceut cal certificate. Appropriately enough a series of spectral forms close the processiou, and to the eyes of Marketh, "stretch out to the crack of doom."

#### PATENT MEDICINES.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—This my reply, refers to a letter by "Suum Cuique," in your issue of December 15, 1879, page 559.

My advertisement is not intended "to cast a shur" upon anyone.

I know as a fact, that in numerous instances, when my powders are specifically asked for by the public, others are offered. And shall I not protect myself in such cases as best I may?

Does your correspondent "Suum Cuique" vend my preparations? If so, the advertisement cannot refer to him, and the class he represents; if he does not he has no cause to complain. I am aware that chemists and druggists have it in their power to influence the sale of a patent medicine, and I am extremely grateful where I have heen made the heneficent recipient of such influence. But I also know a section of the trade is hostile to me, notwithstanding that I have sought to distinguish my preparations in every possible way; and against their adverse influence I seek and intend to protect myself.

I am, sir, yours obedicutly,

JAMES H. STEDMAN.

#### SALE OF PATENT MEDICINES.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

Sir.,—Various correspondents have written you on the above subject, and have suzgested various plans to keep the sale in the chemists' hands at full prices. All, however, are more or less impracticable, but the system I have adopted is this: not to deal with any house that supplies cutting groe is or co-operative stores. My family and myself had dealt with a patent medicine house for 35 years, and a year or two since it came to my knowledge that the same house was supplying a grocer here, who was retailing patents at 10\frac{3}{2}d. each 1s. \land article. I put myself in communication with the house in question, and the result was that I closed my account. The house is well known, and is, in fact, supposed to he the leading house in the trade. I give you the name on my eard, and will give any information in my power to any correspondent applying for it.

I am, dear sir, yours truly,

F. W.

Guildford, January 7.

#### PETROLEUM ACT, 1879.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

Sin,—It will be noted that the Petroleum Act, 1879, which you recently published in your columns, contains no description of the "lead-line or pendulum" referred to in the schedule (directions for applying the flashing test). Professor Abel has, however, informed me, in reply to a letter pointing out the oversight, that "a pattern pendulum or lead-line, as a guide for the length of peudulum to be used in connection with the petroleum test, has been deposited at the Standards' Office, Old Palace Yard, with a label upou which is specified that the pendulum is 2 feet in length, from the point of suspension to the centre of gravity of the weight."

Your ohedient servaut,

BOVERTON REDWOOD, F.C.S., F.I.C. Chemist of the Petrolcum Association.

January 13.

36/76. Delta.—Registering a Trade mark.—For registering one trade-mark to be used in one class of articles the cost is 21., plus official advertising, sundry papers, and agent's fees if you employ one. The registration is in force for 14 years. Further expenses are incurred if the application should be opposed. You had better get the rules from the office, Quality Court, Chaneery Laue. 1s.

76/5. E. T., Nottingham.—Ordinary hard soap is a mixture of cleate, stearate, and margarate of sodium; it is made by heating fats with sodalye. The proportions to he used can only be determined by experience, and we must refer you to works that treat of technical chemistry for further information. Cooley's "Cyclopædia," p. 1505, 6th ed., gives a few details.

18/78. W. T. P.—Medicine Stamp Duty.—We think both labels you send us would render the article liable to medicine stamp duty, for the reason that you describe each as yours. If you put on the label simply the words "C.rr. Solvent," not "P——'s Corn Solvent," and take care not to recommend it by circular or advertisement, you might then, we judge, affix your name and address to the label. But you must not claim a proprietary interest. You can only get an authoritative answer by submitting your label to the Commissioners of Inland Revenue, Somerset House.

78/23. Della.—You will find the formula reduced to proportional English measures on page 13. 100 cc., or one hundred cubic centimétres, one-t-nth of a litre, measures 3½ fl. cz. plus 4 minims; 150 cc. equal 5 fl. oz. 2 fl. dr. 6 minims.

82/31. Eclectic Remedies, Resinæ U.S.P.—Plato asks if we can tell him the hest solvent for the American alkaloids, such as enonymin and iridin. He has triel chloroform, alcohol, and rectified other without success. These preparations are prepared like the resins of the United States Pharmacopæia, by exhausting the substance with alcohol, and precipitating the tincture by adding water. The precipitate contains all the ingredients of the drug which are soluble in alcohol, hnt insoluble in water, and are largely resinous. The process of drying would almost certainly make the precipitate partially insoluble, but by making these preparations yourself, and transferring the precipitate to absolute alcohol while still moist, you would probably te able to re-dissolve it. Glycerine may assist the solution of the cemmercial article. All practical purposes, however, would be served by using a tincture of the drug.

28/32. Afghan.—Your queries involve too many points of law to be easily disposed of, and we think you will have to consult a solicitor as to the steps to be taken to protect your interests. We think, however, it is quite clear that you cannot by any form of label sell by the 1d. or 2d. the substance you advertise and also sell as a patent unedicine. In this journal for August last (page 339) you will find all we can tell you as to the permission granted to open a duly stamped packet of patent medicine and retail it out in small quantities. As to the infringement of your property, no registration is necessary. If you can prove your first ownership of the label and the title, you might get an injunction to prevent any colourable imitation of your label, though we do not think you could interfere if your opponent sold an imitation under another name, even if he did profess it to b similar to yours, unless you had a patent.

SILVERING MIRRORS.—Some time since the Académie des Sciences offered a prize of 2,500f. for a method of satisfactorily and permanently silvering mirrors, and which should save the workmen the danger of exposure to the effect of mercurial vapours. The prize has been awarded to M. Lenoir, whose process is substantially as follows: The glass is first silvered by means of tartaric acid and ammoniacal nitra'e of silver, and then exposed to the action of a weak solution of double cyanide of mercury and potassium. When the mercurial solution has spread uniformly over the surface, fine zinc dust is powdered over it, which promptly reduces the quicksilver and permits it to form a white and brilliant silver amalgam, adhering strongly to the glass, and which is affirmed to be free from the yellowish tint of ordinary silvered glass, and not easily affected by sulphurous emanati ns. - Scientific American

<sup>\*</sup> The Adapter regrets that time has not permitted him to complete his version of the play, and he has been obliged to leave standing some of the original sonewhat rough expressions.

### ZINCI OXYD. PUR

(HARRIS'S),

GUARANTEED TO ANSWER ALL THE B.P. TESTS, In 4, 7, 14 & 28lb. Boxes, Boxes Free. Also in 1lb. & 2lb. Parcels, 1s. lb.

SPECIAL QUOTATIONS TO LARGE BUYERS.

NOTE - EVERY PACKAGE HAS OUR LABEL AND SEAL UPON IT.

KEPT IN STOCK BY THE FOLLOWING WHOLESALE DRUGGISTS:

Messrs. Evans, Lescher & Evans, London. | Messrs. Evans, Sons & Co., Liverpool. Tidman & Son

Boileau & Boyd, Dublin.

Messrs. Duncan, Flockhart & Co., Edinburgh. Woolley, Sons & Co., Manchester.

#### PHILIP HARRIS

### MANUFACTURING WHOLESALE & EXPORT CHEMISTS, BIRMINGHAM.

TWEMLOW, CHEMIST. RICHARD SPECIALITY, PROPRIETARY, MEDICATED LOZENGE, AND CHLORODYNE MANUFACTURER, UPPER BROOK STREET, MANCHESTER,

Begs most respectfully to inform the Trade that, with the aid of recent additions and improvements in his Manufactory and Laboratory for the carrying 

Bronchial Cough Lozenges (similar to Brown) 2/3
Chilorodyne (white and brown) 2/3
Children's Cough Lozenges (guaranteed to contain no Opiate,

#### TWEMLOW'S CHLORODYNE.-NOTE!

Proportions of active ingredients—Morphie Mur. gr. iv. per f. oz., Acid Hydrocyan. (scheele's) m viii, per f. oz.

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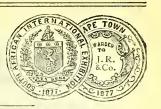
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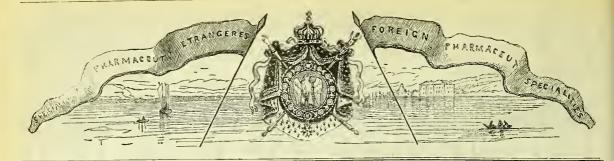
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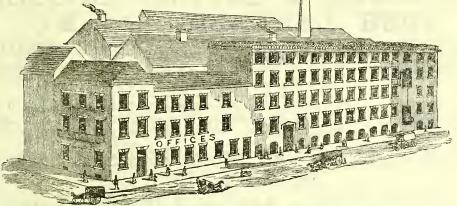
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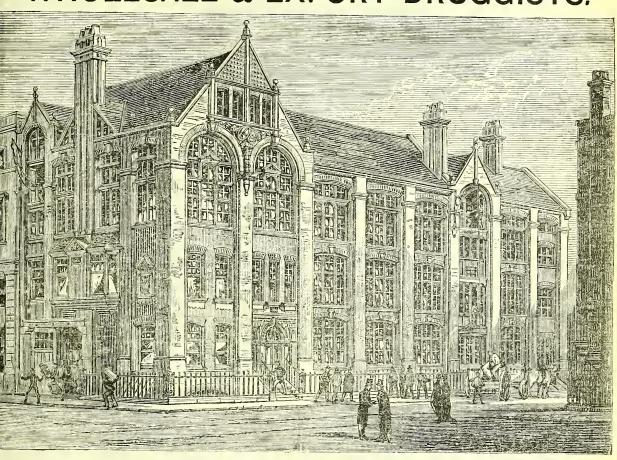
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Phenol Absolut		will not show greasy spots floating on top.
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,,		and ether.
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CHLORAL HYDRATE	White cake and erystals	See Liebreich's, below.
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GLYCERINE	S.G. 1260, double distilled, brilliantly white, odourless; also	Free from lime, chlorides, metals; will stand severest chemical tests.
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TOTABB, DROWIDE	rine white dry regular crystals	Perfectly free from iodide, and the most free from chloride.
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" CYANIDE	Ditto ditto	30°/0, 45°/0, 60°/0, and 95°/0.
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SILVED NIMBAME	T3' 1	never change colour.
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I am, dear Sir, yours very truly, the truly of the sent of the profession. Mr. H. A. THOMPSON.

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Myddelton Square, February 17, 1850.

DEAR SIR,—I have tried your preparations of Rhnbarb and Senna, and do not hesitate to say that they appear to act very efficiently, and to possess a a small bulk) all the active properties of the respective drugs. I am accustomed to recommend the preparation of Senna for use in the nurseries of v patients, as a most efficient and valuable laxative for children.

Mr. H. A. Thompson.

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(Extract from a Letter).

Torrington Square, February 13, 1850.

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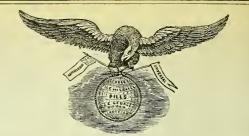
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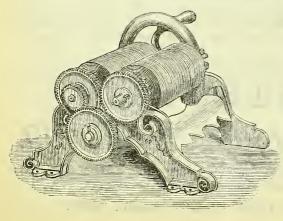
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And Sold Wholesale by the following Agents:—London—Messrs. Burgoyne, Burbidges & Co., 16 Coleman Street, Barclay & Sons, Edwards & Sons, Sanger & Sons, Newbery & Sons, Sntton & Co., Millard & Sons, and John Thompson. Goodall & Co., Leeds; Raimes & Co., Liverpool, Edinburgh, and York; Thompson, Liverpool; Ismay, Newcastle-on-Tyne; Woolley & Co., Manchester; Foggett, Tbirsk.

Chemists requiring Counter Bills with their Name on, and Show Cards, can have them on application to W. COLEMAN.



### PILL MACHINE

(COCKING'S PATENT DOUBLE-ACTION),

Used extensively in Great Britain, India, Australia, America, and the Continent.

PRICE £10.

Nov. 19, 1879.—Sir.—The Pill Machine auswers perfectly, we therefore send cheque, ich please acknowledge.—Yours faithfully, H. THORBURN & SON, Bishop Auckland."

### COCKING'S CYLINDRICAL PIPER,

Turns out One Pound of Pill Mass in perfect Pipes in 3 Minutes.

PRICE 50/-

This little Machine is worked with the ordinary Counter Pill Machine, and as no weighing or rolling out of the Mass is required, the saving of time is very great and manifest. It may be inspected, and its practical working shown, at Mr. CASSIE'S, 49 Newgate Street, London.

"Dec. 9. 1879.—Sir,—Herewith I remit you cheque, 50', for Piping Machine. It is quite a success, and saves a considerable deal of time.—W. J. PALMER, Pharmaceutical Chemist, King's Lynn."

SPECIAL TERMS TO CASH BUYERS FROM THE INVENTOR,

S. COCKING, Chemist, 72 & 74 High Street, Sittingbourne, Kent. Also through the Sundry Houses.

TRADE MARK.—SANCTIONED BY HER MAJESTY'S GOVERNMENT

Protected under the Trade Marks Act (38 & 39 Vict., chap. 91. Enacted by the "Queen's Most Excellent Majesty," 20th August, 1875.

DLEASANT to the Taste. The only Safe, Prompt, and Reliable PHOSPHORIC REMEDY for Overworked Brain, Worry, Anxiety, Excitement, Late Hours, Business Pressure, Nervous Prostration, Wasting Diseases, Asthmatic, Consumptive, Stomach, and Liver Complaints, Impaired Nutrition, Impoverished Blood, Premature Decline, and all Morbid Conditions of the System dependent upon the deficiency of Vital Force.

Purifies and Enriches the Blood; Clears the Skin; Thoroughly Invigorates the Brain, Nerves, and Muscles: Re-energises the Failing Functions of Life, and thus Imparts Energy and Fresh Vitality to the Exhausted Nervo-Electric Force; and Rapidly Cures every form of Nervous Debility, Paralysis, Nervous. Mind, and Heart Diseases, from whatever cause.

### IMPORTANT TO EUROPEANS VISITING OR RESIDING IN HOT CLIMATES.

DR. LALOR'S PHOSPHODYNE has an enormous Sale in India, China, Africa, and other Hot Climates, from its possessing in the most perfectly assimilable form the essential Vitilising properties of PHOSPHORUS, which re-animates the Exhausted Functions of Life when impaired by Heat or other causes. A very large number of Testimonials, from all parts of the World, freely offcred from private persons, Naval, Military, Scientific, and Professional Men who are well known, speak of its marvellous powers in Nervous Debility, WANT OF STAMINA, FEVERS, MALARIOUS DISEASES, and as a LIVER TONIC.

### BOTTLES,

BY ALL EXPORT, WHOLESALE, AND RETAIL MEDICINE VENDORS THROUGHOUT THE WORLD.

CAUTION.—The name, Dr. Lalor's Phosphodyne, is blown in the glass of each bottle, and the Genuine Phosphodyne is manufactured only at Dr. Lalor's Laboratory, London, England. Medicine Vendors are hereby warned that Legal Proceedings will be taken against all Persons selling the Fraudulent Imitation after this Notice.

IMPORTANT NOTICE.—Every Bottle bears the British Government Stamp, with the words, Dr. Lalor's Phosphodyne, London, England, by Order of Her Majesty's Honourable Commissioners. If not, it is a Forgery.

OF BAY HOUSE, 32 GAISFORD STREET, LONDON, ENGLAND

The Sole Proprietor and Originator of PHOSPHODYNE,

Is prepared to Prove the following Facts in any Court of Law in London, England, and he respectfully requests

Medicine Vendors and the Public to assist the cause of Truth and Right, against Falsehood and Fraud:

A BASE FRAUD is now being perpetrated by the Advertisement of a Worthless Imitation of DR. LALOR'S PHOSPHODYNE in the Newspaper Press of India and the Colonies, the nature of which may be guessed from the fact that the originators of these Advertisements DO NOT and DARE NOT insert them in the Papers Published in the United Kingdom; neither may the Spurious Article, sought to be Foisted upon the Public Abroad, BE SOLD in the British Isles.

PHOSPHODYNE was discovered and so named by DR. R. D. LALOR, in the year 1862, and the Title and Prospectus was duly Registered at Stationers' Hall, London, in the year 1864. This Title and Prospectus, and four of Dr. Lalor's Testimonials (the dates of which have been fraudulently altered from 1865, 1866, and 1867, as in the Original Letters, to 1870), have been Basely Pirated by the parties Advertising the False Phosphodyne. Copies of Original Letters, with Prospectus, sent post frce.

The Genuine "PHOSPHODYNE" bears the Christian, Surname, and Address as above; also the Registered Trade Mark, "PHOSPHODYNE," to copy which is Felony.

APPOINTED FOREIGN AGENTS FOR DR. LALOR'S PHOSPHODYNE:-

TREACHER & Co., Bombay. Byculla. and Poona.
SMITH, STANISTREET & Co., Calcutta.
BATHGATE & Co., Calcutta.
R. ROBERTSON, Ceylon.
O'HARA & Co., Bangalore.
E. GILLON & Co., Lahore.
RANGOON DISPENSARY, 215 Dalhouse Street.

J. LLEWELLYN & Co., Shanghai, China.
BRITISH DISPENSARY, Shanghai,
HONG KONG DISPENSARY, Hong Kong,
HEYNES, MATTHEW & Co., Cape Town.
FORDRED & WHITE, Grahamstown.
IMPEY & Co., Port Elizabeth.
W. F. LANCE & Co., East London.

HOSKING & Co., Kimberley, & Diamond Fields, HEMMONS, LAWS & Co., Melbourne, BARRAUD & SON, Wellington, New Zealand. T. J. SAWYERR, 162 Rawdon Street, Freetown,

Sierra Leone.
R. JONES, Waterloo, Sierra Leone.



LINDSEY & SONS,

32 LUDGATE HILL, & 40 GRACECHURCH ST., E.C., LONDON.

Wholesale and Foreign buyers will do well before ordering to see our Export Price Lists, mailed free to any address. Best quality guaranteed, and utmost care in execution of orders, with promptitude.

PRICES OF PLAIN PRINCIPLE TRUSSES, from 16s. per doz. SINGLE; DOUBLE, 20s.

Salmon & Ody's, Moc Main, Cole's expired Patents, and every other description of Trusses.

LINDSEY'S PATENT TRUSS, without STEEL SPRING.

EASY, EFFECTIVE, IMPERCEPTIBLE WHEN ON.
RETAIL PRICE, each, 15/6, 21/6, 26 6, 31/6. A Large Discount to the Trade. Full description post free.

SALMON'S PATENT. MARK.

SALMON, ODY & CO., 292 Strand, LONDON.

PATENT TRUSS MANUFACTURERS.

SALMON'S PATENT. MARK.



FIG. 1. Patent Single.

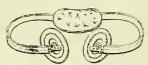




FIG. 3. Common Single.



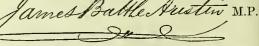
Fig. 4. Common Double.

PRICES, 1880. NETT Patent Self-Adjusting Trusses, Basil and Chamois, per doz. (Fig. 1), single for 18 Ditto ditto Basil and Moleskin "18 0 Ditto ditto Basil and Chamois "18 0 Ditto ditto Basil and Moleskin "19 0 Ditto ditto Basil and Chamois or Moleskin "19 0 Ditto ditto Basil and Moleskin "19 0 Ditto ditto Basil and Moleskin "19 0 Ditto ditto Basil and Chamois or Moleskin "19 0 Ditto ditto Basil and Ch

CHEMISTS requiring a supply of AUSTIN'S INVISIBLE RESPIRATORS, admittedly the best of all kinds, also of AUSTIN'S POCKET INHALERS, at greatly reduced prices (both of which are protected by

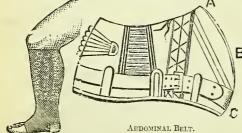
Royal Letters Patent), may obtain them on

favourable terms by application to

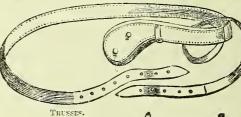


1 CRAVEN TERRACE.

# SURGICAL

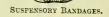


ELASTIC STOCKINGS.



LIST OF PRICES AND DIRECTIONS FOR MEASUREMENT FORWARDED ON APPLICATION.

Greatest attention paid to Special Orders, which are invariably forwarded per return of post.





J. S. HAYWOOD, Castle Gate, NOTTINGHAM.

# LINT.

# THE ORIGINAL TAYLOR'S PATENT SUPER AI FLAX LINT

(INVENTED 1850).

This LINT, unequalled by any other, has been before the Public for about Thirty Years, during which time it has been most extensively used in the British Army and Navy, in a large number of British and Foreign Hospitals, and by the Medical Profession generally.

Its Advantages are, that being made from fine Flax Fibre it is perfectly free from all impurities, and, for Surgical purposes especially, is infinitely superior to Lint made from any other material.

Manufactured by W. G. TAYLOR, Charford Mill, BROMSGROVE.

REPRESENTATIVES-

Messrs. S. MAW, SON & THOMPSON,

7 TO 12 ALDERSGATE STREET, LONDON.

N.B.—Samples and Prices forwarded at once on application.

Taylor's Super A1 Flax Lint, 3s. 8d. per lb.

Maw's Surgeons' Lint, 2s. per 1b.

Maw's Hospital Lint, 1s. 9d. per 1b.

SPECIAL QUOTATIONS BY THE CWT.

S.MAW, SON & THOMPSON, LONDON.

PRIZE MEDALS, INTERNATIONAL EXHIBITIONS.







PARIS, 1875.



LONDON, 1862.



PARIS, 1878.

# KILNER BROTHERS,

MANUFACTURERS OF

# GLASS BUILLES,

LONDON OFFICES:

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## WORKS:

THORNHILL LEES,

NEAR DEWSBURY,

CONISBORO',

NEAR ROTHERHAM,

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We Manufacture Bottles for Wholesale Druggists, Dispensing Chemists, Confectioners, Wine, Spirit, Ale and Porter Bottlers, Wholesale Oilmen, Aërated Water Manufacturers, and others; and having a large and efficient plant we are enabled to execute Home and Export Orders to any extent PROMPTLY.

We shall be pleased to forward Illustrated Price Lists and Samples on application.

# ROBINSON & SONS.



MANUFACTURERS OF



TRADE MARK.



GREY, WHITE, OR ABSORBENT,

# BANDAGES:

BRIDGE

LONDON WAREHOUSE: 55 FANN STREET, ALDERSGATE STREET, E.C.

HOSPITAL LINTS, as used for many years at Guy's, St. Bartholomew's, St. Thomas's, The London, &c.; also at the Royal Infirmaries of Edinburgh, Glasgow, Manchester. Liverpool, &c., &c.

No. 1 FLAX LINT, made from pure LINE Yarn, not Tow Yarn, and is the finest Flax Lint made, beautifully soft and silky.

THE LANCET, August 24, 1878, on Paris Exhibits, says:-

"Messrs. Robinson & Sons. of New Brampton, near Chesterfield, have exhibited some beautiful specimens of Lint, which attract the attention of French and foreign surgeons. They look very soft and silky. Their flax and cotton samples are equally good. These exhibitors especially draw the attention of French medical men (who employ the thready French lint) to their cheap cotton lint, which is employed in the majority of English hospitals, and which is cheap and easy to apply. They lay great stress on the care they take to rid the lint of chlorine, acids, or other irritating substances. They have also a collection of bandages very remarkable for their flexibility and facility of application. They look comfortable to wear; and ventilation must take place better with them than through a more closely-wave relief. take place better with them than through a more closely-woven tissue."

The White Open Wove are also instantaneously Absorbent, making the Bandages admirably adapted for Water Dressing.

### A CERTAIN CURE FOR DEAFNESS

By this valuable "Specific" hundreds have been cured of this distressing malady. For Cold in the Head, with Noises in the Ear, it is most efficacious. The highest testimonials are enclosed, with directions for use with each bottle

# OSBORNE'S GOLDEN DROPS



# OSBORNE'S GOLDEN DROPS

FOR DEAFNESS.

The highest Testimonials are enclosed, with directions for use with each bottle.

Extract from "Brief."—"GOLDEN DROPS FOR DEAFNESS.—E. M. Osborne has produced a valuable specific for this distressing complaint. We have tested its efficacy, and can, with confidence, recommend it to the public as an excellent remedy. It is perfectly harmless, and the directions for use are plain and simple. It is secured by a registered trade mark, 'Human Ear,' by which the genuine article may be recognised."

### TESTIMONIALS.

"EDGEASTON, MAY 4, 1877.—Sir,—My niece, who came to stay at my house, was suffering from Deafness and difficulty of breathing, owing to weakness of the tonsils caused by Quinsy. She tried your wonderful 'Specific,' and after applying it a little more than a week her hearing and breathing were quite restored. I am glad to communicate this as the medium of personal thanks and for the good of others,—Yours truly, C. L."

"CLAPHAM, SEPT. 5, 1877.—Sir,—Be so good as to seud me six bottles of your 'Cure for Deafness,' and you will oblige. I am much better. Shall I go on with it? Be so good as to let me know. It has done me more good than physicians to whom I have paid twenty guineas; they canuot do me any good.—Yours, &c., J. P."

"CRISTAL PALACE ROAD, EAST DULWICH, JUNE 10, 1878.—Sir,—During the last few weeks my little girl has been quite deaf, and suffering considerable pain in her left ear. I was recommended to use your 'Golden Drops for Deafness,' and I am delighted to say that, after applying them three times, they brought away two large secretions of forn matter. The child can now hear distinctly the faintest sounds, and is free from pain. I send you this testimonal nunsked, in the hope that its publication may increase the sale of your truly valuable 'Golden Drops,'—Yours respectfully, I. H. S. N.B.—If you will send me some testimonial sheets I will distribute them amongst my friends."

Sold by all Wholesale and Retail Chemists, price 1s. 12d., 2s., 2s. 9d., and 5s. 6d.; or free by post for 12d. extra from

### E. M. OSBORNE, 26 THAVIES INN, HOLBORN CIRCUS, LONDON.

Wholesale and Export Agents—EVANS, SONS & CO., London; and EVANS, LESCHER & WEBB, London.

# TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at  $13\frac{1}{2}$ d. 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs., 11s., stamped.

# LIQ. CHLORODYNII,

As originally introduced by A. P. Towle, and free from stamp duty for dispensing.

4 ozs., 4s.;  $\frac{1}{2}$  lb., 5s. 6d.; 1 lb., 10s.

# TOWLE'S CHLORODYNE LOZENGES

# AND JUJUBES

In 1, 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes. Foiled, Lined and neatly got up for the counter, 4s. 6d. and 9s. per doz.

A. P. TOWLE, Chlorodyne Manufacturer, 75 BACK PICCADILLY, MANCHESTER.

Bills with name on application with instructions for forwarding.

### **BROWNE'S** COLLIS

ORIGINAL AND ONLY GENUINE.

### CAUTIONS IMPORTANT

rom Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD, and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that

VICE-CHANCELLOR SIK W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as dibberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that dapplication been made at a proper time and place, the Court would have found means to restrain the Defendant from misrevenenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misreprentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the Times, November 14th, 365, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never sed any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant ablishes the said testimonial as referring to his medicine.

The Editor of the Medical Times, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne ferred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published

y the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the wentor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; evertheless he assumes the name, testimonials, &c., of Chlorodyne.

analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

### FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis rowne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they variably supply Dr. J. Collis Browne's:—

3 11 3	
Apothecaries' Hall,	London.
Allen, Hanbury & Co.,	,,
Baiss Brothers,	,,
Banks & Richards, Birr	ningham.
Barron, Harvey & Co.,	London.
Bell, John, & Co.,	
Bourne & Taylor,	,,
Corbyn & Co.,	**
Cox & Gould,	29
	"
Curling & Co.,	> 2
Curtis & Co.,	77
Davy, M'Murdo & Co.,	73
Drew, Barron & Co.,	>>
Drew, B., & Alexander,	,,
Dunn & Company,	,,
Edwards, W.,	"
Evans, Gadd & Co.,	Exeter.
Evans, Lescher & Evans	London.
Ferris & Co.,	Bristol.
Foulger, S., & Son,	London.
Frazer & Green,	Glasgow.
210001 60 610001,	orangon.

Gale & Co.,	London.
Giles & Son,	Clifton.
Goulding, Messrs.	Cork.
Gratton & Co.,	Belfast.
Grimwade, Ridley,	London.
Grindley & Son,	Chester.
Hearon, Squire & Francis	Lendon.
Hodgkinson, Tonge & Ste	
Hopkins & Williams	,,
Hunt & Co.,	Exeter.
Hunt, A., & Co.,	.,
Johnson, J. H. & S.,	Liverpool.
Langton, W., & Co.,	London.
Lynch & Co.,	,,
Mander, Weaver, Wol	verhampton.
Marsden & Sons,	London.
Maw & Son,	,,
Meggeson & Co.	,,
Mackay, John,	Edinburgh.
Morson, T., & Son,	London.

Newbery & Sons,	London.
Oldham, G., & Co.,	Dublin.
Parsons & Richardson	. Leicester.
Peake, Allen & Co.,	Dublip.
Raimes & Co.,	Liverpool.
Raimes & Co.,	York.
Raimes, Blanshards &	Co., Edinburgh
Sang & Barker,	
Sanger, J., & Sons,	London.
Sim, James, & Co.,	Aberdeen.
Smeeton, W.,	Leeds.
Southall & Co.,	Birmingham.
Sutton, W., & Co.	London.
Tomlinson, Hayward &	& Co., Lincoln.
Treacher, Hodgkinson	
Westrup, J. B.,	Kensington.
Westwood & Hopkins,	Lincoln.
Woolley, James,	Manchester.
Wyleys & Brown,	Coventry.
Yates & Co.,	London.

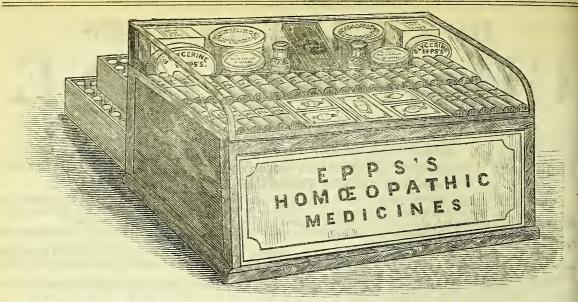
After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can mscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. he value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

### DAVENPORT, Pharmaceutist.

33 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.



# HANDSOME COUNTER SHOW CASE,

£9 9s. net; contents retailing for £16 13s. 6d.

The New Illustrated Price List of Counter Cases, Medicine Chests, Tinctures, Drugs, and Sundries, forwarded on application.

## JAMES EPPS & CO., Homœopathic Chemists, 48 Threadneedle Street, London.

# APERIENT FRUIT LOZENGES

Prepared from the bark of the Rhamnus Frangula, a medicine which has been described on high authority as "the only real aperient we have"; all others usually classed under that name being drastic in their operation and often injurious in their after effect. They are extremely palatable, and children take them readily as a sweetmeat. "Mild and uniform in their operation."—Lancet, "The lozenge is an excelent and exceedingly mild form of laxative, especially suitable for children and delicate people."—Birmingham Medical Review. "They are very mild, and will probably be found very useful for children and delicate women."—Medical Times and Gazette. "These Lozenges are now extensively prescribed by several of the leading medical men in London and other cities. They are not to be considered a patent or quack medicine in any respect."—The London Medical Record.

The attention of the profession and of pharmacists is especially called to these Lozenges. They are extremely palatable. Children take them readily as a sweetmeat.

PREPARED BY

H. C. BAILDON & SON, Pharmaceutical Chemists,73 PRINCES' ST., EDINBURGH.

Sold in Boxes at 2s. & 3s.6d. by all Chemists.

And in Bottles for Hot Climates, at 2s. 3d. and 3s. 9d. each.

AGENTS.-W. EDWARDS & SON, 157 Queen Victoria Street, London, E.C.

Montreal.-H. Sugden, Evans & Co.

### INDEX TO ADVERTISEMENTS,

See Pages 49 & 50.

ESTABLISHED 1843.

# THOMPSON & CAPPER,

WHOLESALE & EXPORT

# HOMEOPATHIC CHEMISTS,

55 Bold Street, Liverpool,

51 Piccadilly, Manchester.

# NEW ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER have recently purchased the long-established business of HENRY TURNER & CO., Manchester, which they now carry on under their own name.

# THOMPSON & CAPPER'S DENTIFRICE WATER

Is kept by T. & C.'s Agents throughout the world.

PRICE CARD ON APPLICATION.



# EEMAN'S CHLORODYNE



THE ORIGINAL AND ONLY TRUE.

Discovered and Invented by RICHARD FREEMAN in

It is one of those preparations so well known as having something in its composition which defies the imitator, and makes t an invaluable remedy. No other remedy known can be exhibited with so much confidence as a SEDATIVE, an ANTI-PASMODIC, an ASTRINGENT, an ANODYNE, or DIAPHORETIC.

In its composition and effect it bears no resemblance to any of the many formulæ published, but has curative and chemical reperties peculiarly its own, nor is there any analytical test for it. It has been found by the Profession and large numbers of he public to succeed after all imitations had failed, and maintains its unaltered position as the only reliable CHLORODYNE.

The following are presented as specimens of the many communications received by R. F.:-

'hlorodyne. I have prescribed it extensively, and find it in every respect ir superior to any of the spurious compounds sold under the name of hlorodyne. In cases of Asthma, Chronic Bronchitis, the last stage of hthisis, and the Winter Cough of the Aged, I have never found any ubstitute or chemical combination its equal; moreover, in all cases where sedative is required, it is a certain, safe, and agreeable remedy."

From John Tanner, M.D. L.R.C.P., M.R.C.S., L.S.A., L.M.,
Physician to the Farringdon Dispensary.

"It gives me great pleasure to bear testimony in favour of Freeman's horodyne. I have prescribed it extensively, and find it in every respect

From C. Swaby Smith, M.R.C.S. Eng., L.S.A., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union Author of "On the Treatment of Diphtheritic Sore Throat," &c.

"Having been in the habit of using Mr. Freeman's Chlorodyne for some time past, I have much pleasure in stating that it has never failed to have the desired effect in whatever case it has been administered."

IMPORTANT CAUTION.—Four Chancery Suits terminated in favour of FREEMAN'S PRIGINAL CHLORODYNE and against Collis Browne and Davenport. Lord Chancellor Selbourne, Lord Justice ames, and Lord Justice Mellish condemned their proceedings, and decreed them to pay all costs. Reports of the suits in "Times," January 12 and July 13, 1864, and April 29 and July 24, 1873, and "British Medical Journal," Jay 3, 1873.

Sold in Bottles, 1s. 1½d.; 2 oz., 2s. 9d.; 4 oz., 4s. 6d.; 8 oz., 9s.; 10 oz., 11s.; and 20 oz., 20s. each; and for dispensing only bottles, fl. 8 oz. 8s., and fl. 20 oz. 18s. (in weight one pound and a half). A liberal discount allowed. Special quotations given or quantities for Hospitals, Workhouses, Infirmaries, and other Public Medical Institutions. Full directions in various languages.

SOLE MANUFACTURER-

RICHARD FREEMAN, PHARMACIST, 70 KENNINGTON PARK ROAD, LONDON, S.E.

BLOOD

# WORLD FAMED

The Great BLOOD RESTORER.

(Registered Trade Mark-"BLOOD MIXTURE.")

he Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds. Wholesale of all the Wholesale Houses, at 24s. and 108s. per dozen, less the usual discount.

OLE PROPRIETOR, F. J. CLARKE, CHEMIST, LINCOLN, ENGLAND. Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.

AUTION.—Mr. Clarke will take immediate proceedings against all persons pirating his Trade Mark, "Blood Mixture," Labels, Wrappers, &c.,
or Advertisements, or in any way infringing his rights.

### DINNEFORD'S MAGNESIA. FLUID



PERFECT IN PURITY AND UNIFORM IN STRENGTH.

Sold by all Wholesale Druggists, and by the Manufacturers.

DINNEFORD Pharmaceutical

180 NEW BOND STREET, LONDON.

THE ACME OF PERFECTION.

Emp. Belladonnæ, Opium, &c.

Spread on White Leather, with

### ADHESIVE MARGIN.

Shape				Size	Shape				Size
Square	••			$4\frac{1}{4} \times 5\frac{1}{4}$	Oblong		• •	••	6½ ×11
Oval	• •	• •	• •	5 × 7	"	• •		• •	7 ×13}
Saddle	• •	• •	• •	41 × 92	Heart	• •	• •		5 x 7
Oblong	••	• •	••	43 × 7	Ean Dress				$6\frac{1}{2} \times 8\frac{7}{2}$
,,	• •	• •			For breas	s t		1 U	liameter
"	••	••		$\frac{5\frac{1}{2} \times 9\frac{1}{2}}{6 \times 8\frac{3}{2}}$	For Breas	st.	••	7 d	liameter

Terms on application to the Sole Manufacturers,

GOOSEY & ROGERS, Chemists,

Stepney, London, E.

Can be ordered through any Wholesale House.

# NESTLE'S MILK FOOD,

For Infants, Children, and Invalids.

London Depot-7 BARBICAN, E.C.

NESTLE'S MILK FOOD is prepared at Vevey, Switzerland, from the pure milk of Alpine fed cows, the finest wheaten flour and sugar, combined in exact proportions to imitate closely the natural food for infants. It is thoroughly cooked, and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use—in this respect having the advantage over all other foods.

NESTLE'S MILK FOOD is highly recommended by the best medical authorities in all parts of the globe as a perfect diet.

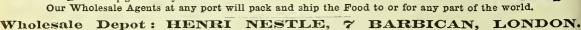
Nestle's is the original and genuine Milk Food or Powder. The extensive demand



Nestle's is the original and genuine Milk Food or Powder. The extensive demand for this Food, its well known superiority and universal recognition by the medical profession, have produced the inevitable imitations. The trade and the public are hereby cautioned. Nestle's Milk Food has stood the test of years. Take no other under any pretence whatever.

NESTLE'S MILK FOOD is put up in tins, packed in lined cases specially for the export trade. Is highly concentrated and in a perfectly dry state. Will

keep good in any climate.



### WHOLESALE AGENTS AND SHIPPERS:

Barolay & Sons, London
Jno. Sanger & Sons, London
F. Newbery & Sons, London
S. Maw, Son & Thompson, London
Jno. Thompson, London
R. H. Millard & Sons, London
Lynch & Co., London
Corbyn & Co., London
Grimwade, Ridley & Co., London
R. Hovenden & Sons, London
Evans, Lescher & Evans, London
G. Rosenthall, London

W. Sutton, London
Hodgkinson, Stead & Treacher,
London
W. Edwards & Son, London
J. P. Werner, London
W. Mather, London
Peacock Bros. & Co., London
Burgoyne, Burbidges & Co., London
Tidman & Son, London
Robt, Brooks & Co., London
Horner & Sons, London
W. B. Cranwell & Co., London

Wyleys & Co., Coventry
Raimes & Co., Liverpool
John Thompson, Liverpool
Evans, Sons & Co., Liverpool
J. Hallawell & Co., Liverpool
Thompson & Capper, Liverpool
James Woolley, Sons & Co., Manchester
Jewsbury & Brown, Manchester
Southall Bros. & Barclay, Eirmingham

Goodall, Backhouse & Co., Leeds Lofthouse & Saltmer, Hull Evans, Gadd & Co., Exeter
Raimes & Co., York
Raimes, Blanchards & Co., Edinburgh
Duncan, Flockhart & Co., Edinburgh
John Mackay, Edinburgh
Apothecaries' Co., Giasgow
W. & R. Hatrick & Co., Glasgow
McMaster, Hodgson & Co., Dublin
Grattan & Co., Belfast
McMahon, Day & Co., Limerick
A. Demarchi Bros. & Co., Buenos
Ayres, Monte Video, and Rosario

Registered

COLONIAL AGENTS
Melbourne: Felton, Grimwade & Co.; Sydney: Elliott Brothers; Dunedin: Kempthorne, Prosser & Co.; Auckland: Kempthorne, Prosser & Co.
CALCUTTA: Smith, Stanistreet & Co.; MADRAS: Oakes & Co.

Wholesale Depot: HENRI NESTLE, 7 BARBICAN, LONDON.

# SPECIAL NOTICE TO DRUGGISTS.

Increase your Business by Selling the

# ORIENTAL COMPANY'S TEA

In Submitting their Teas to Agents, the above-named Company desire to offer the following remarks:-

THE PROPRIETORS have been long connected with the East, as Import and Export Merchants, and, with the means at their command, are enabled to avail themselves of their experience in purchasing at the proper season, from the best markets, and direct from the Tea Planters, thereby securing the choicest pickings, and saving all intermediate profits between producer and consumer.

THE TEAS being thus bought are carefully cut, sifted, and mixed by the most improved machinery, under the superintendence of a Practical Teaman, whose whole study has been devoted to the Art of Blending Teas to suit the Tastes of the general public; and it may be added that it is greatly due to judicious blending that the Company's Teas have acquired the position they now hold.

Indian Teas have within the last few years obtained such favour with connoisseurs for Strength, Aroma, and Delicacy of Flavour, that The Oriental Company have introduced, as a Specialty, a blend of these fine Teas, the sale of which has attained such proportions as to warrant the assertion that it produces the most delicious beverage ever offered to the public.

THE TEAS are packed in specially-prepared wrappers, with Tinfoil Lining, in \(\frac{1}{4}\)-lb., \(\frac{1}{2}\)-lb., and 1-lb. Packets; 5-lb., 10-lb., and 20-lb. Tins; 20-lb. Boxes, Half-chests, and Chests; and retailed as under.

Fine China Blended Tea, Magenta Label ... ... ... Retail at 2/0 per lb.

Finest ,, ,, Blue ,, ... ... ... ... ,, 3/0 ,,

Fine Indian ,, ,, Green ,, ... ... ... ... ... ,, 2/6 ,,

Finest ,, ,, Yellow ,, ... ... ... ,, 4/0 ,,

For Terms of Agency and other particulars apply at the Office-

418 OXFORD STREET, LONDON W.

PATENT COOKED **DELICIOUS** 

INFANTS AND INVALIDS.

All Chemists should keep this celebrated article in stock, as it meets with a ready and rapid sale.

MANUFACTURED ONLY BY THE SOLE PROPRIETORS—

DR. RIDGE & CO., Royal Food Mills, LONDON, ENGLAND.

DAY. THE THE



දුං

MAKES STARCH LINEN AS NEW.

Starched Linen is made to Iron Easier, and is unequalled for Stiffness and Gloss. Sold by most starch sellers, at 1d., 3d., and 6d. each. Wholesale by the Proprietor,

CRITCHLEY

CHEMIST & WHOLESALE DRUGGIST BLACKBURN.

CAUTION !- Makers and Sellers of imitations will be prosecuted.

### LAZENBY & SON'S PICKLES.

Sauces, and Condiments.-E. LAZENBY & SON (6 Edwards Street, Portman Square), Sole Proprietors of the Celebrated Receipts, and Manufacturers of the Pickles, Sauces, and Condiments so long and favourably distingisuhed by their name, beg to remind the Public that every article prepared by them is guaranteed as entirely unadulterated. Manufactory, 18 Trinity Street, London, S.E.

### HARVEY'S SAUCE.—CAUTION—The

admirers of this Celebrated Sauce are particularly requested to observe that each bottle prepared by E. LAZENBY & SON bears the label used so many years, signed "ELIZABETH LAZENBY." Gold Medal, Paris Exhibition.

Pure Cocoa only, with the superfluous oil extracted.

It is strongly recommended to all who appreciate the full flavour and fine aroma of Cocoa.

"It is strictly pure, and well manufactured in every way."—W. W. STODDART, F.I.C, F.C.S., City Analyst, Brustol.

"If properly prepared, there is no nieer or more wholesome preparation of Cocoa."—Food, Water, and Air, Edited by Dr. HASSALL.

### J. S. FRY & SONS, BRISTOL & LONDON.

FRY'S CARACAS COCOA .- " A delicious preparation ."

CHEMISTS' TEA AGENCY.

### BROKEN-LEAF TEA, 1s. 8d. per 1b.

A Money-saving Tea, absolutely pure, in half-pound packets 100. The small leaf from fine India and China Teas, stronger, richer, and cheaper than any whole-leaf tea. Wholesale to Dealers and Sellers and Agentalolbs, sent free to any railway station in the kingdom.—WALKER & DALRYMPLE. Warehouses-154 and 155 Whitechapel Road, Lendon. P.O.O. payable at Head Office. Bankers—The National Trovincial Bank of England. N.B.—Samueles posted free.

### MORGAN'S PATENT CRUCIBLES



TRADE MARK.

TAVE RECEIVED AT EACH EXHIBITION the HIGHEST AWARD made for crucial the greatest heat without danger, and they never crack. Porous Battery Cells, &c., are manufactured by

THE PATENT PLUMBAGO CRUCIBLE COMPANY.

BATTERSEA WORKS, LONDON. S.W.

# KORFF'S

PURE CHOCOLATE

Sold in Pound, Half-pound, and Quarter-pound Tins, at 3s. 4d. per 1b.

"It is GENUINE, and of EXCELLENT QUALITY."-ARTHUR HILL HASSALL, M.D.

Sole Consignees:-E. A. PHILLIPS & CO.,

23 GREAT ST. HELEN'S, LONDON.

A Sample Case containing 2 1-lbs., 3 \frac{1}{2}\cdot lbs., and 4 \frac{1}{4}\cdot lbs., sent carriage free on receipt of 12s. town, or 12s. 6d. country.



# MAWER'S TARAXACUM OR DANDELION COFFEE

Prepared from the Fresh Root.

Notwithstanding the many attempts to imitate this incomparable preparation, Mawer's manufacture continues to rise rapidly in public estimation, and the sales have of late immensely increased. Wherever it is introduced it meets with increasing appreciation and continuous sales, for beyond doubt it excels all in quality, strength, aroma, and cheapness.

Chemists everywhere find this the most saleable article of the name. It

is neatly packed in air-tight tins, and is spoken well of throughout Great Britain and several of our Colonies. To be had from all London Patent Medicine and Sundry Houses, and direct from the Maker in Tins, 6d., 9d.,

1s., 1s. 6d., and 2s. Write for terms to

# VARD MAWER.

Chemist,

HIGH WYCOMBE, BUCKS.

Handbills and Show Cards supplied gratis.

Sold by Chemists everywhere.

### "UNIVERSA KNEADING

PFLEIDERER'S PATENTS.

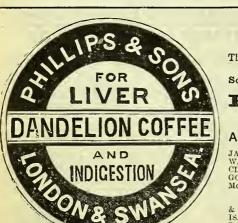
Write for New Lists.

Great Improvements.

Perfection achieved.

MACHINE.

PFLEIDERER, 37 Farringdon Street, LONDON, E.C. PATENTEE AND MANUFACTURER.



ESTABLISHED 1760.

Contains three times the strength of ordinary Breakfast Beverages.

ONCE TRIED ALWAYS USED.
The valuable properties of the Dandelion Root, recognised by eminent Physicians for many centuries, has now become an article of daily use. Sold by all Chemists throughout the Kingdom in Tins at 1s. 6d., 1s., 9d, and 6d.—Price Lists on application to the Manufacturers,

PHILLIPS SZ

CASTLE SQUARE, SWANSEA,

AND ARTHUR STREET WEST, LONDON BRIDGE,
JAS. WOOLLEY, SON & CO., Manchester. EVANS, SONS & CO., Liverpool, &c.

JAS. WOOLLEY, SON & CO., Manchester.

W. MATHER, Export Agent, London.
CLARKE & MeMULLAN, Belfast.
GOODALL. BACKHOUSE & O., Leeds.
MeMAISTER & HOUGSON, Dublin.
BARCLAY & SONS, Farringdon Street.
COLONIAL AGENTS.—Melbourne, Adelaide, and Sydney—P. T. FALK; BLYTHE & CO. New Zealand, Nelson, Canterbury, Anckland—A. SCLANDERS & CO.; E. & A. ISAACS Adelaide—F. H. FAULDING & CO. Cape, Algoa Bay, East London—L. DREFFUS.

SPECIAL TERMS TO MERCHANTS AND SHIPPERS.

(COOKED)

### FOR INFANTS AND INVALIDS.



In Instruction has been long and successfully used by eminent Physicians, and, containing as it does an excess of Phosphorus and other necessary constituents for the formation of bone and manuals increasured. muscle, is recommended by them as the most suitable Food for delicate children, especially for those suffering from scrofula, rickets, or from consumption. It is suitable either for infants at the breast or for those deprived of their natural food, and

for those deprived of their natural food, and will be found to agree with the most delicate stomachs. To mothers suckling, this Food is of ale, beer, or stout as a drink. To invalids it is invaluable, being easy of digestion and extremely nourishing, while it has the additional advanage of being palatable and agreeable, either as food or as a drink. In onsumption, in all Diseases of the Chest, Bowels, or Stomach, in Liver tomplaints, in Constipation, or in Gravel, it cannot be equalled. It enterempts that the continuous of the chest, the continuous of the chest, as been known to save life when no other nourishment could be taken.

TESTIMONIAL.—Messrs. ELIS & CO., London, Sept. 1, 1879, tentlemen,—The fact that 600 children died in London during the last wo months of hot weather, from diarrhea caused by heat and improper ood, is very startling and alarming. Milk, which soon sours and becomes tood, in a miproper but a daugerous food for children, is said to be one of he chief causes of so much diarrhea and death. Your Infants' Food, not eleonging to the starchy tribe of foods, but containing all the necesary ingredients to sustain life, is what really is so much wanted for infants, or mothers nursing, and even for invalios in general, and, when known, will far supersede all other foods now before the public. I have long thorn and used the Preparation, and it now gives me much pleasure to economend it to the public in general, as it is my practice to do to my natients.

ANALYSIS.—Dr. Redwood, Analytical Department, 17 Bloomsbury Remark London W.C. Sent 30, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs, C. P. ELIJS & CO., Gent 20, 1876. To Messrs,

T. MOWBRAY HENDERSON, M.D.

ANALYSIS.—Dr. Redwood, Analytical Department, 17 Bloomsbury
iquare, London, W.C., Sept. 30, 1876. To Messrs. C. P. Ellis & Co. Genlemen,—I have examined the sample of Farinaceous Food you left with
ne, and am of opinion that it contains ingrelients well suited to form a
tholesale and nutritious food for infants, invalids, and rickety subjects,
upplying not only the elements required for reparation and nutrition,
untalso for the formation of bone.

T. REDWOOD, Ph.D., F.C.S.

Sold in Tins, price 1/, 2/6, 5/6, and 10/6, by all Chemists and Grocers. WHOLESALE LONDON AGENTS:

JAMES EPPS & SONS, Threadneedle Street, E.C.

SOLE PROPRIETOR:

W. COLEMAN, St. George's Middle St., NORWICH.

# MUSTARD. Qualities Genuine

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

Undertake not to supply Co-operative Stores.

6 Broken Wharf, Upper Thames St., London.

### INDEX TO ADVERTISEMENTS

See Pp. 49 and 50.

SEVEN PRIZE MEDALS AWARDED.

### GOODALL'S

THE MOST DELICIOUS SAUCE IN THE WORLD. This cheap and excellent Sauce makes the plainest viands palatable, the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it This cheap and excellent same many of the property and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable, Sold by Grocers, Oilmen, Chemists, &c., in Bottles,

18 incomparable. Sold by Grocers, Onlinen, Chemists, &c., in Locate, &d., 1s., and 2s. cach.

Over FOUR MILLION (4,000,000) Bottles Sold Annually.

LARGEST SALE OF ANY SAUCE IN THE WORLD.

CAUTION.—On each Yorkshire Relish Label is our Trade Mark, Willow Pattern Plate, and name, Goodall, Backhouse & Co., No other is convine. other is genuine.

The cheapest, because the best, and indispensable to every household, and an inestimable boon to housewives. Makes delicious Puddings without eggs, Pastry without butter, and beautiful light Bread without yeast. Sold by Grocers, Oilmen, Chemists, &c., in 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

# Goodali's

The best, cheapest, and most agreeable tonic yet introduced. The best rendy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. Sold by Chemists, Grocers, &c., at 1s., 1s. 1½d., 2s., and 2s. 3d. each bottle.

# Goodal <u>Custa</u>rd Powder

For making delicious Custards without Eggs. in ror making denotous custaris without eggs. In less time and at hat the price. Unequalled for the purposes intended; will give the utmost satisfaction, if the instructions given are implicitly followed. The Proprietors entertain the greatest confidence in the article, and can recommend it to Housekeepers generally as a useful agent in the preparation of a good Custard. Delicious to Plum Pudding.

Delicious to Jam Tarts.

Delicious to Stewed Rice.
Delicious to all kinds of Fruit.

Delicious to Jam Tarts.

Delicious to all kinds of Puddings.

Delicious to all kinds of Fruit Pies.

Sold in Boxes, 6d. and 1s. each, by Grocers, Chemists, Italian

Warehoust men, &c.

Makes Three Gallons of the Best Ginger Beer in the World for 3d. Makes Three Gallons of the Best Singer Beet in the world for ou.

Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. It is easily made, and is by far the cheapest and best Ginger Beer Powder ever offered to the public. Sold in Packets, 3d. best Ginger Beer Powder ever offered to the public. Sold in Pacand 6d. each, by all Grocers, Chemists, and Italian Warehousemen.

# Brunswick**B**lack

FOR PAINTING STOVES, GRATES, IRON, TIN, &c. This invaluable composition is superior to any yet offered to the public, possessing great brilliancy, and thoroughly protecting the article it is applied to. Sold in Bottles at 6d. and 1s. each. SOLE MANUFACTURERS

GOODALL, BACKHOUSE & CO., White Horse St., Leeds.

A Mon'lly Price List of Drugs, Chemicals, Druggist' Sundries, Patent Medicines, &c., can be had post free on application.

ESTABLISHED 1843.

# Confectioner, Wholesale &

MEDICATED LOZENGES, REFINED LIQUORICE, JUJUBES, &c. PAVEMENT, CONEY ST., & COPPERGATE, YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients) and stamped with name if required.

PRICE LIST ON APPLICATION.

Details of Injunction granted by V.-C. MALINS will be found in "Chemist and Oruggist," Febcuary 15, 1877, page 76.



Wholesale Price Lists, Opinions of the Press, and full information will at all time? be given direct. or through the Patent Medicine Houses.

apply to

BAKER, SOLE AGENT, GRAY'S INN ROAD, KING'S CROSS, W.C.

Observe.-All Corks Branded "Whitbread & Co." Labels-Chocolate Letters on Orange Ground. N.B.—It is very des rable that all orders should be sent on or before Saturday, 20th December, to lessen as much as possible the pressure of business that takes place previous to a General Holiday.

### RANDALL'S BLACK CURRANT LOZENGES. Net Cash. To Acct.

3. 2 3. d. 2 8 Plain Black Current, old square rough oval 2 8 Black Current and Ipecacuanha 2 8 Black Current and Tannin .. 3 3 Black Currant Voice (warm astringent) .. 3 3 O Black Currant Cough Lozenges ... (Ipecac. and Morph., strength as "B. P.") 3 3 10

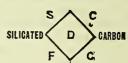
In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From Enwands, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,
Who will forward Samples by post on application.

Also, Dhown Cough Lozenges, 2s, 2s. 2d.; 7 lbs. stamped with name free. N.B .- Medical Lozenges of every kind,

Including these of the Pharmacopæia of the Hospital for Diseases of the Throat, London.

### SILICATED CARBON FILTERS.



Prize Medals-PARIS, 1867. HAVRE, 1869.

A DOPTED, IN PREFERENCE TO ALL OTHERS, by the Admiralty, and used in the General Post Office, the London and Provincial Hospitals, and many Public Establishments in various parts of the World.

SILICATED CARBON FILTER COMPANY,

CHURCH ROAD, BATTERSEA, LONDON.

# NELSON'S PURE BEEF

The Lancet says:—"This is an ingenious and excellent preparation. It dissolves readily in warm water, keeps for an indefinite length of time, and is very portable. Its flavour is all that could be desired. The article includes not only those constituents of the meat which are soluble in hot or cold water, but also much of the fibrin and the whole of the albumen."

Samples and Prices on application to the Manufacturers,

# GEORGE NELSON, DALE & CO.,

14 Dowgate Hill, London, E.C.

# NELSON'S SOUPS.

Beef with Peas and Vegetables.

Miss Mary Hooper, Crystal Palace School of Cookery, says:-

"CRYSTAL PALACE, SYDENHAM, Dec. 1st, 1879.

"I have tried your Beef Tea and Soup, and have found them excellent; indeed, in my opinion, they are by far the best things of the kind ever before the public. The Soup is excellent in flavour, and is good nourishment. It is very nice, and is most useful for strengthening and flavouring household soup or broth. It is, besides, so cheap that it cannot fail to be appreciated by all classes of the community, and it will be of great use to charitable people, as it will enable them readily to supply, at a small cost, a good, warm, nourishing meal."

Samples and Prices on application to the Manufacturers,

# GEORGE NELSON, DALE & CO.,

14 Dowgate Hill, London, E.C.

These Essences are of the highest strength, exquisite flavour, and put np in the most tasteful and attractive manner for elemists' sale.

Almond and Ratafia are free from Prussie Acid.

free from Prussie Acid.
For every first order of
not less than 1 gross, a
glass-top counter show case
is included gratis.
Labels of handsome design, with purchasers' names,
are supplied at small extra
charge.

charge.

 $\frac{1}{3}$ ,  $\frac{1}{3}$ ,  $\frac{2}{5}$ ,  $\frac{4}{8}$ ,  $\frac{4}{6}$ ,  $\frac{4}{14}$ , per doz.. Supplied in bond in quantity of not less than 6 gross, at

1 2 4 oz. bots. 30/- 48/- 80/- 140/- per gross. Special discounts on quantities over 6 gross.

### LORIMER'S

PURE

# CONCENTRATED QUINTESSENCES,

DISTILLED FROM

## HERBS, SPICES, FRUITS,

### CULINARY PURPOSES. &c.

J. LORIMER, Junction Road, London, N.

Allspice, Ahnouds, Aniseed, Caraway, Cayenne, Celery, Cinnamou, Cloves, Coebineal, Curacao, Fennel, Garlie, Ginger, Horseradish, Lemon, Mace, Mixed Spice, Marjoram, Noyeau, Nutmegs, Parsley, Peppermint, Pine Apple, Raspberry, Ratafia, Sage, Shallots, Vanilla.

Lorimer's Fruit Syrups are of the finest quality, put up in faney bottles, and command a ready sale.

Cherry, Black Currant, Red Curraut, Ginger, Ginger Lemon, Lemon, Lime Fruit, Lime Fruit Cordial, Orange, Pine Apple, Raspberry, Rasp-berry Vinegar, Strawberry.

In Reputed Pints . . 7/6 doz.



# AMERICAN DRUG & SPICE

Advantages-

The cutters or grinders never wear out. Cutters or Grinders can be cleaned and refixed in one minute, thus any quantity of different articles can be ground without fear of intermixture.

Price No. 4a Mill, 70/-

Price No. 2a Mill, 26/-

1a

American Tincture Presses, 8/-, 12/-

Larger size if required.

See Pharmaceutical Journal, November 17, 1877, page 399.

# 221, 223, 226, 232 St. John Street, Clerkenwell.

# DESIDERATUM" MIXING MACHINE.

BRACHER'S PATENT.



FOR

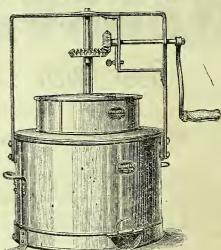
### MIXING

ALL

Descriptions

OF

POWDERS.



Nos. V. and VI.

These Machines are admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the Pestle and Montar, and supply a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalters, Colour Merchants,

and Mannfacturers.

They are durable, easily eleaned, portable, require no fixing (except in the ease of large sizes), can be worked either with or without the cover, and are, without doubt, the best and cheapest Mixing Machines ever invented.

Exery Retail Chemist and Druggist, Greer and Confectioner, should possess one of these little Machines, as the small outlay would be soon repaid in the saving of time and trouble, indeed it would scarcely te thought possible that the articles could be so thoroughly blended in such an incredibly short time. The Nos. 3, 4, and 4a are for mixing Baking Powder, Coffee and Chicory, Sherbet, Lemon Kali, &c., &c., and will blend from 1 lb. to 500 lbs. per hour.

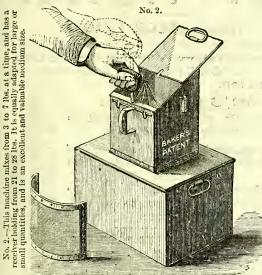
The large sizes are used by Wholerale Druggists, Confectioners, Drysalters, Sherbet and Lemon Kali Manufacturers, and all who bave large quantities to mix. See the CHEMIST AND DRUGGIST of March 15, 1879; also the GROCER AND OIL TRADE REVIEW of April 12, 1879.

Further particulars on application to the Manufacturer, BRACHER, HIGH STREET, WINCANTON.

# AKER'S PATENT

rotected by Letters Patent in the United Kingdom, the United States, Canada, France, Germany, Belgium, &c.

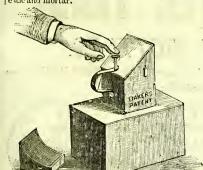
The introduction of these inventions having already been attended with a sale of about 5,000 machines among Chemists and Druggists in the United The introduction of these inventions having already been attended with a sale of about 5,000 machine's among Chemists and Druggists in the United Kingdom alone renders further testimonials to their superiority over any other "Mixers" immecessary. They are the only machines which combine the advantage of the finest sieves with those of a perfect mixer, Chemists and Druggists universally testifying that they can produce finer powders and more intimate mixtures than by any other process, while for rapidity of action and the entire avoidance of waste and dust in the operation they stand unrivalled. At a meeting of the Pharmaceutical Society, held in London, machines of several sizes were exhibited and satisfactorily tested (see Pharmaceutical Journal, February 5, 1879). The machines are provided with seven different meshes of sieves, from which a selection of four is usually made, forming the "ordinary set." The finer sieves are used for Camphorated Chalk, Violet Powders, Aromatic Powders, Gregory, Tooth Powders, Dover's Powders, and all finest compounds, while the medium and coarser sieves are used for Scidlitz, Lemon Kali, Sherbet, Baking Powders, Curry Powders, Pill Powders, Horse and Cattle Mixtures, preparing Tinetures, &c. The sieves can be instantly changed for other meshes, and the whole machine taken apart for cleaning. apart for cleaning.

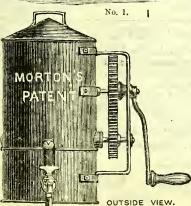


No. 3. BAKERS PATEN

No. 3.—This machine mixes from 14 to 28 lbs. at a time, and is provided with two drawers holding 30 lbs. each; several cwt. can be mixed and sifted in a short time when required; it is equally corrective for small quantities. This size is well adapted for wholesake and large retail dealers, and is highly recommended. No. 4 is of the same shape and construction as No. 3, but is of twice the size and eapacity.

No. 1 Machine. - This is a most convenient size for retail chemists; from 1 to 5 lbs. can be mixed and sifted in a few minutes, or when only a few onnees are required it is equally convenient. For dispensing prescriptions, &c., it entirely supersedes the use of jestle and mortar.





No. 5.—This machine is adapted for the largest wholesale dealers, and is arranged to work by the hand or steam-power. It has a crank action, with a revolving rough mixer and grinder in the hopper, being also arranged with "Agitator Mixers" and sieves as in the smaller machines. Several tons can be mixed and sifted in this machine in a few hours when required,

Sole Agents for Morton's Patent Liquid and Compound Mixer. For Pomades, Cold Cream, Oint-

sole Agents for Morton's Fatent Liquid and Compound Maker. For Formades, Cold Crain, Ontements, Emulsions, Chemicals, Colours, Inks, Soaps, 8 ances, &c.

These machines are constructed with a double bottom for the purpose of holding hot water when
required; or heating apparatus cambe used under them. The mixer working closely to the concave,
the ingredients are thus brought from the hottom at each revolution—the only perfect principle for
nquid mixing. The machines are closely covered, and easily cleaned, the mixer being removable.
Further particulars and Price List on application.

SON, BAKER & 14 TABERNACLE WALK, FINSBURY SQUARE, LONDON, E.C.

### PRIZE MEDAL, PARIS, 1878.

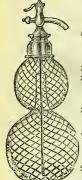
# EUGENE GERAUT & CO.

PATENTEES AND MANUFACTURERS OF

SODA WATER MACHINES, FILLING MACHINES, SYPHONS, SELTZOGENES, &c.

# NEW AND IMPROVED PATENT LEVER FLTZOGENES

For the Immediate Production of Eau de Vichy, Soda Water, Sparkling Lemonade, and Aerated Wines.



First introduced by Eugene Geraut & Co., in 1853.

### Wholesale Prices as follows:

3 pint, wire .. 13s. 0d. 5-pint, wire .. 18s. 3-pint, cane .. 13s. 6d. 5-pint, cane .. 19s.

8-pint wire, 30s.; cane, 32s.
Strongly silver-plated, 5s. each extra.
size. strongly silver-plated, richly-decora

3-pint size, strongly silver-plated, richly-decorated percelain stands, 30s. each; 5-pint size, 38s. each; 8-pint size, 48s. each.

The Name can be put on the metals free of charge for quantities of not less than two dozen.

### Powders for the above:

2-pint, 20s.; 3-pint, 22s.; 5-pint, 36s.; 8-pint, 65s. per doz. boxes.

### Liberal Discounts for large quantities.

Our well-known S-ltzogenes are improved yearly, and have already stood a public test of upwards of twenty years, and are acknowledged as THE VERY REST.

# SYPHONS.

### WHOLESALE PRICES.

Clear or Coloured Glass, viz., Blue, Green, or Yellow, Warranted pure ENG-LISH BLOCK TIN TOPS, with Piston or Cap at top.

### 22/6 per dozen,

Or £13 10s. per gross for quantities of no less than one gross.

The Name marked on the metals free of charge for quantities of not less than one gross.

The Name engraved on the glass for quantities of not less than one thousand, 2d. each extra.



ILLUSTRATED PRICE LIST ON APPLICATION.

OUR ONLY ADDRESS IS

1 & 2 CORPORATION BUILDINGS, FARRINGDON ROAD, LONDON, E.C.

# TO THE MINERAL WATER TRADE.

### DISCS FOR ALL PATENT BOTTLES.

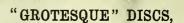
These are a great convenience, strengthening the Cap Labels, and keeping the lips of the Bottles free from dirt. The following sorts are kept in stock:—



### "PLAIN" DISCS.

Size of this Circle, on Stout Boards, no Printing.

Price -5,000, 8d.; 10,000, 7d.; 25,000, 6d.; 50,000, 5d.; 100,000, 4d. per 1,000.



Printed on good Cardboard in Blue Ink; they consist of a great variety of Amusing Figures.

Price—5,000, 1s; 10,000, 11d.; 25.000, 10d.; 50,000, 9d.; 100,000, 8d. per 1,000.



### "MOTTO" DISCS,

HONESTY
IS THE
BEST POLICY.

Printed on Stout Boards in Black Ink; they consist of an immense variety of Mottoes and Well-known Sayings.

Price—5,000, 9d.; 10,000, 8d.; 25,000, 7d.; 50,000, ¢d.; 100,000, 5d. per 1,000.

### "QUOTATION" DISCS,

Printed on good Cardboard, Lake Ink; they consist of an immense number of Quotations from Shakespeare, Byron, Milton, Burns, &c., &c.

Price—5,000, 1s; 10,000, 11d; 25,000, 10d; 50,000, 9d; 100,000, 8d. per 1,000.

GIVE US ATASTE. OF YOUR QUALITY SHAKESPEARE

All the above are assorted in Boxes of 5,000, each Box containing an immense assortment.

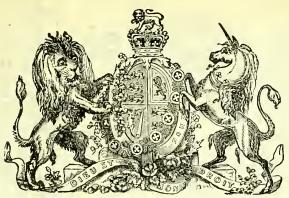
Prices and Samples submitted for all kinds of Labels, and also for Show Cards, Circulars, Price Lists, and all printed matter required in the business.

J. B. LAWBE & CO.,

PRINTERS TO THE MINERAL WATER TRADE,

199 UPPER THAMES STREET, LONDON, E.C.

ESTABLISHED 1820.



Lozenge Maker to the Queen and Duke of Edinburgh.

# FERGUSON'S COUGH LOZENGES.

Entirely free from all preparations of Opium. They have been manufactured for upwards of sixty years, and during that time Hundreds of unsolicited Testimonials have been received from all classes. Unadvertised till now, the consumption has lately exceeded Fifteen Tons per annum in the Eastern Districts of Scotland, where they are much esteemed for their efficacy and cheapness. (The One Shilling Bottle contains as much as is usually sold for 3s. 6d. of Patent Medicine Lozenges.)

### PRICES TO THE TRADE.

Case of 6 dozen 1s. Bottles (cases free) ... £2 10s.

"CARRIAGE PAID. ... £4 10s.

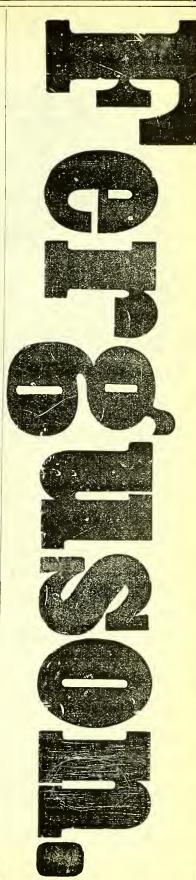
# ALEXANDER FERGUSON, EDINBURGH.

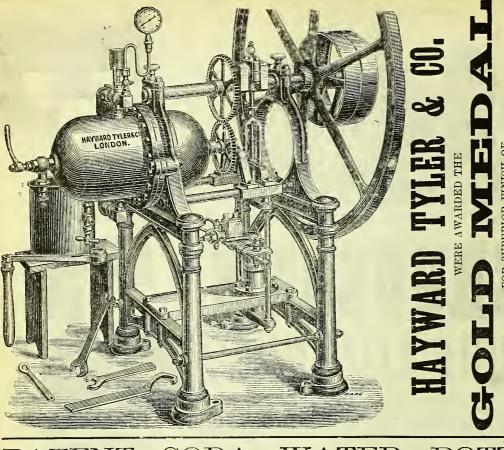
ABSTRACT OF MEDICATED LOZENGE PRICE LIST.

ABSTRACT OF	MED	ICATI	ED LOZENGE PRICE .	LIST.
British Pharmacopæia Lozenges,	Grains in each.	Tr'ce, per lb.		rains Price, each. per lb.
Acidi Tanuici Bismuthi Catechu Ferri Redacti Jpecacanahae Morphiae Morphiae Morphiae Forii Potasse Chloratis Sede Biscaphantis	30 30	1s. 9d. 2 0 1 8 2 0 1 7 2 0 2 1 1 7		$ \begin{vmatrix} 1s. 4d. \\ 1 & 0 \\ 1/1/6 & 2/ \\ 1s. 6d. \\ 1 & 4 \\ 5 & 0 \\ 3 & 3 \\ 1 & 4 \end{vmatrix} $
Aniseed	1 1 2 5 5 5 5	1 9 1 2 1 0 1 6 1 0	Lettnee, Extract of Lettuce and Liquorice Lettuce and Ipecacuanha Lavender Liquorice	5 5 5 1/1/6 2/ 1s, 0d.
Bath Balsam of Tolu	5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Malt Drops	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Bismuth, with Ginger ,, Soda	$\frac{2}{2-5}$	$\begin{bmatrix} 2 & 1 \\ 2 & 2 \\ 1 & 9 \\ 1 & 4 \end{bmatrix}$	Nitre Paregorie Rhubarb, Ginger, & Magnesia, 5 grains of Mixture	5 1 4 1 6 2 10
Catechu and Cayenne	1	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Squill Tannin and Cayenne Tannin and Black Currant Throat Lozenges	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Chlorodyne, 3 drops AND OT	HERS		CREAT VARIETY	2 0

AND OTHERS IN GREAT VARIETY.

WRITE FOR COMPLETE LIST.





SODA BOTTLES.











LONDON, STREET, DACRE WESTMINSTER,

We are bringing out some

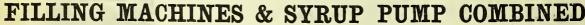
By Royal Letters Patent, Dated



FOR THE APPROACHING SEASON, MUCH CHEAPER,

And with great Improvements on existing Patents.

Before giving your orders, please write for samples.



Have been proved to be The Best and Cheapest in the Market, of which now upwards of 1,000 have been Sold.

IMPORTANT NOTICE.

Should the Bottles break, the Stoppers may be newly fitted up and used again in fresh Bottles, thereby being great saving and advantage over some other Patents.

June 2, 1874, No. 1923.



BOURTON, DORSET.

SMALL STEAM ENGINES.

(Economical in Fuel and in First Cost.)

THESE small Engines are specially adapted for driving Soda Water Machinery wherever a moderate amount of cheap power is required. They combine simplicity, compactness, and great strength, are casily managed, occupy very little space, and require no fixing.

They are available at any time, as steam can be got up in half an hour from cold water.

They require no fixing, being erected on a Cast-Iron Water Tank Foundation.

They are simple in construction, and, having as few working parts as possible, are not likely to get out of repair.

They can be driven by a boy. Can be made to burn GAS instead of Coal.

Nominal horse power	1	11/2	2	3	4	5	6	8	10
Engine and Boiler combined£	39	47	55	70	88	100	115	135	157
Wheels, with Handle£	41	49	57	75	95	110	125	145	167

ALL SIZES IN STOCK—DELIVERED FREE TO ANY STATION.

© Illustrated Catalogues with full particulars on application.

# SODA WATER MACHINERY.

MEDAL

GOLD

Awarded Grand Medal of Progress at Vienna, 1873.

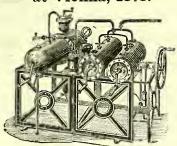


Bottling Machine.

Seven First-class Medals awarded at various International Exhibitions over and above all other Machinery of the kind since 1862.

Soda Water made at a minimum cost by using these Machines.

No Steam Power wanted. Entire Saving of Coals. Half the usual Labour. Saves Breakage of Bottles. Simple in Coustruction.



TRADE MARK.
Generator and Bottling Cylinders.

Agents for Lamont's Patent Bottles, and Vaass & Littman's Ice Making Machines.

Sole Agents for
Galloway's "Excelsior"
Soda Water Machine,
with Steam Engine combined, and "Universal"
Double Pump Machine,
Guaranteed to Make
40,000 Bottles per Day;
also all other Specialties
made by this celebrated
House.



Cabinet Machine.

### Cost of Machines Saved in one Season in Broken Bottles alone.

The undersigned are the only Manufacturers in Europe of the Improved Machines for Making, Bottling, and Drawing on Draught Aërated or Mineral Waters.

Mineral Waters.

These Machines are lined with pure tin, the pipes are of pure tin, and every care is taken to make them as perfect as possible. For convenience, and saving of time and labour, these Machines are not excelled; therefore, for Makers of Soda Water, Lemonade, Ginger Ale, Seltzer, Potass, Vichy, and other Waters, they are invaluable.

Before purchasing send for Catalogue of 104 pages, post free, giving illustrations and prices.

NOTICE.—The Trade and all others are notified that no one has authority from us to manufacture any of our specialities; and anyone pretending to have such, and manufacturing the same, will be dealt with according to law. All are therefore safe only by dealing with the original Inventors and Manufacturers.

### DOWS, CLARK & Co., 46 & 47 Frith Street, Soho, LONDON.

In our New Catalogue, just issued, will be found illustrations and descriptions of the various Machines for Making Aërated Waters and Bottling the same, Marble Machines for the Counter, of various designs and prices, Copper Cylinders and Coolers, Syphons and Fillers, Ice Safes, Silver-plated Counter Draught Tubes, Tumblers, and Silver-plated Holders, Measuring Taps, Ice Cream Freezers, Fruit Juices, Extracts for flavouring, and Fruit Syrups, for Export or otherwise. Patent Clasps for Bottles, Pressure Gauges, the Cabinet Machine for Clubs, Private Families, Messes, &c. Mineral Waters for Export. Bottles, Corks, Ginger Ale Extract, Gum Extract, for producing foam, Cider Extract, &c., &c.

Lime Juice Cordial and Syrup of the very finest quality.

# Natural Mineral Waters of "Apollinaris," "Hunyadi Janos," Vals,

Vichy, Carlsbad, Seltzer, Kissingen, Homburg, Pullna, Friedrichshall, &c., direct from the Springs.

Also the ARTIFICIAL MINERAL WATERS prepared by Dr. STRUVE & CO., at the Royal German Spa, Brighton, and R. ELLIS & SON, Ruthin.

Appointed Agents for the celebrated "APOLLINARIS WATER."

W. BEST & SONS, Foreign Wine, Spirit, and Mineral Water Merchants, 22 Henrietta Street, Cavendish Square, London, W.

### MONDOLLOT Limited. CO..

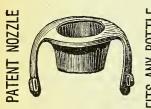
BEFORE PURCHASING YOUR

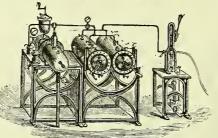
### MACHINERY F

Write for Mondollot's CATALOGUE, which will be sent post free on application.

LITTLE JAMES STREET, BEDFORD ROW, LONDON, W.C.

### SODA-WATER MACHINERY.







SODA WATER MACHINE COMPLETE, WITH RACK.

DAVENPORT'S NOZZLE AND STOPPER is the best Patent for utilising old Bottles, and converting them into Patents. No Corks or Wire, and saving entire cost in one season. The New Nickel-plated Nozzle makes this the most attractive Patent in use. Trial allowed. Prices lowered. Send for Samples. New Bottles ready fitted for use now supplied.

Catalogues of Soda-Water Machines, Ice-Making Machines, Engines, Boilers, Copper Cylinders, Syphons, Seltzogenes, Filters, &c., and all accessories to the Soda-Water Trade.

HAYWARD TYLER & CO.'S SODA-WATER MACHINERY. BARRETT & ELERS' Patent Stoppers in Lamont's Bottles. Illustrated Catalogues, of sixty-four pages, post free to all parts of the World.

DAVENPORT & Soda-Water Machinists and General Machinery Agents, CO., 99N HIGH HOLBORN, LONDON.



LONDON, 1862,



LONDON, 1873-74.



PARIS, 1867-78.



VIENNA, 1873.



PHILADELPHIA, 1876.





COUNTER FOUNTAINS. MARBLE

HANDSOME For dispensing Iced Fruit Drinks.

MACHINES FROM 30 POUNDS.

Sole Agents for Codd's Patent Globe-Stoppered Soda Water Bottles.

In use by over 500 established Soda Water Makers in England alone. SOLE MAKERS OF THE IMPROVED LONDON-MADE SYPHON, 2s. each in quantities.

CATALOGUE

FORWARDED



THE "LONDON-MADE" SYPHON.

BARNETT & FOSTER, 23T Forston Street, Shepherdess Walk, City Road, London, N.

# HAY'S

# SOLUBLE ESSENCE JAMAIC GINGER

(GUARANTEED PURE AND FREE FROM CAPSICUM).

This highly concentrated Essence has the purest Jamaica Ginger flavour and aroma, is highly adapted for the manufacture of Aërated Waters, and for all dietetic, medicinal, and pharmaceutical purposes.



THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under  $2\frac{3}{4}d$ . per dozen bottles. Dose, 10 or 15 drops to half-a-teaspoonful in water.

Trade Price, 5s. per lb.

FROM

Trade Price, 5s. 6d. per lb.

This Essence, which is an addition of Vanilla, Lemon, and other flavours to the above, is strongly recommended for the manufacture of Ginger Beer, Wines, &c., to which it imparts with the GINGER a PECULIARLY FINE FRUITY FLAVOUR and AROMA. THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under 3d. per dozen bottles.

### THE COMPOUND

### FORTIFIE ESSENCE

Specially adapted for the Manufacture of

## 

Trade Price, 5s. 6d. per lb.

THIS ESSENCE, besides its special adaptation as above, is strongly recommended for the manufacture of GINGER BEER and other kinds of Aërated Beverages, especially in those cases where it is desired to impart to those drinks at a SMALL COST the FULLEST amount of PUNGENCY with the FINE GINGER AROMA and FRUITY FLAVOURS of the LAST-MENTIONED ESSENCE.

THE COST of this Essence in the manufacture of GINGER ALE is 13d. per dozen bottles, and for GINGER BEER or GINGERADE a little under 11d. per dozen bottles.

### MEDICAL AND OTHER OPINIONS ON THE SOLUBLE ESSENCE.

"Singular'y free from resin."—The Lancet.
"It should entirely supersede the officinal preparation of the British Pharmacopoxia."—Medical Press.
"It is a pure, elegant preparation, and is free from resinous matter."—Medical Times and Gazette.
"It is a pharmacentical desideratum."—The Chemist and Druggist.

### MEDICAL AND OTHER OPINIONS ON THE GINGER BEER MADE FROM THE SOLUBLE ESSENCE

"An excellent effervescing drink."—The Lancet.

"Extremely grateful and palatable, and certainly preferable to some wines we have tasted under the name of champagne."—Medical Press.

"Clear and transparent, and very pleasing to the palate."—Medical Times and Gazette.

"Has the purest Jamaica Ginger around, distinguishable as soon as pourd out. It is a beverage fit for any gentleman's table, and ought to attain great popularity."—The Chemist and Druggist.

"Is as clear, bright, and sparkling as the best Lemonade."—Mineral Water Trade Review.

"Standard framework reads of Aligned Waters." Hierard Water Trade Review.

"Stands in the foremost rank of Aërated Waters."-Mineral Water Trade Recorder.

Supplies all Colouring and Flavouring.

PREPARED

W. HAY, Manufacturing Chemist, 4 REGENT'S TERRACE, ANLABY ROAD, HULL.

## RANDALL, SLOPER & CO.,

### SODA WATER MANUFACTURERS, SOUTHAMPTON.

GOODS FORWARDED CARRIAGE PAID WITHIN 80 MILES OF SOUTHAMPTON, ON ORDERS OF 2 GROSS AND UPWARDS.

Soda, Seltzer, Potash & Aerated Waters supplied in Syphon Bottles.

Importers of Hunyadi Janos, Friedrichshall, Vichy, Pullna, Carlsbad, and other Foreign Mineral Waters, supplied at Prices which will bear comparison with London Rates.

PRICE LISTS FORWARDED ON APPLICATION.

### FOREIGN MINERAL WATERS.

\*\*\*PREDERICKSHAIL (5 Cases, 6d, per Case less) 24/6 Case, 30 bot., 34/ Case, 60 ½-bot. APOLLINARIS (29 Hprs., 1)- per Hpr., less) ... 25/ Hpr., 50 ... 39/ Hpr., 100 ... 14 imports free. carriage paid; Empts Bottles, 6d, per doze. (41 UNYADI JANOS (10 Cases, ½-bts., 5/- less; 10 Cases, bts., 3/- each less)

CETTOTES							30/-	Case.	25	bts.	5	0/-	Case.	50 J	-bts.
SELTZER	***	• • • •	•••	***			11/6	Hor	25	11	1		Hpr.,		
PULLNA	•••						18/- (	Care.	20	**			Case.		~
VICHY		•••		•••	•••	***	31/-	**	50		2			50	**
CARLSBAD			***	•••	***		37/6		50				**	00	9*
KISSENGEN	7						45/-		50	**					
SCHWALLB	ACH			•••		•••	27/6			17					
HOMBURG			•••	•••	•••	•••	37/6		50	11					
WILDUNGE	N	•••	•••	•••		•••			50	11					
CARLSBAD	SATT	re 1	D-4-			•••	40/-	11	50	11.			001		

### FINE NORWEGIAN BLOCK ICE.

ORIGINAL BLOCKS, 2 to 3 cwts. cach

1 cwt. to 2 cwts.

1 cwt. to 2 cwts.

Packing and Mats for Original Blocks free; 3d, each allowed for Mats if returned printed by the second printed print

W. B. HARRISON, Importer of Ice & Mineral Waters, 6 BRIDGE STREET, SUNDERLAND.

### AERATED PURE

MANUFACTURED BY

T. & F. J. TAYLOR, NEWPORT PAGNELL. ESTABLISHED 1835.

Purity and Excellence of the Water certified by Analysis by PROFESSOR ATTFIELD, Ph.D., F.C.S.

NEWPORT PAGNELL SODA WATER, containing 10 grains of Bicarbonate of Soda in each bottle.

AERATED WATER, without Alkali.

POTASH WATER, containing 10 grains or 20 grains of Bicarbonate of Potash in each bottle.

LITHIA AND POTASH WATER.

SELTZER WATER, prepared according to Analysis of the

EFFERVESCING LEMONADE, superior in flavour colourless, and warranted to retain its brilliancy.

Each Bottle is protected by a Label bearing the Signature of the Firm

### BRIGHTON SELTZER GENUINE

### OTHER AERATED WATERS.

Prepared with scrupulous care as to chemical accuracy, and with the Natural Spring Water of Brighton, the Purest in the Kingdom.

### CHALLONER JOHN SONS. MINERAL WATER MANUFACTURERS.



PROVIDENCE PLACE. BRIGHTON.

See our Advertisement, May Edition.

### THE LEAMINGTON

GINGER ALE (Aromatic).—There is now a large consumption in private families of this very popular beverage; its Aromatic properties and Brilliancy of Colour are perfection; part of a bottle may be used, and the remainder if re-corked will keep in perfect condition.

Apneumatic Soda Water.

Apneumatic Brighton Seltzer.

Apneumatic Potass Water.

Apneumatic Lithia Water. Apneumatic Acrated Water.

Our terms are more favourable for a family trade than those of any first-class makers.

& CO., late J. DAILY & CO., LEAMINGTON.

Trade List and Descriptive Pamphlet of the Apneumatic process free on application.

### PURE." "ABSOLUTELY

SEE ANALYSES. Sent post free on application.

### **ELLIS'S**



Soda, Potass, Seltzer, Lemon-ade, also Water without Alkali. For GOUT, Lithia Water, &

Lithia & Potass Water.

REGISTERED.

CORKS BRANDED "R. ELLIS & SON, RUTHIN," and every label bears their Trade Mark. Sold everywhere, and wholesale of

R. ELLIS & SON, RUTHIN, NORTH WALES.

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square,

### BINGLEY'S

Lemonade.



SODA WATER. SELTZER. POTASH. LEMONADE. LITHIA, &c.

MANUFACTURED BY

JOHN BINGLEY, Pharmaceutical Chemist, NORTHAMPTON.

A copy of Professor Attfield's Report will be forwarded by post on application.

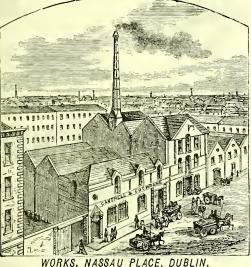
OUR

DRINKS

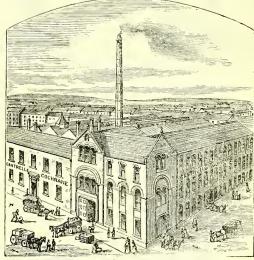
ALCOHOLIC

# CANTRELL & COCHRANE,

ARE NON. LCOHOLIC OUR DRINKS



WORKS, NASSAU PLACE, DUBLIN.



WORKS, CROMAC BUILDING, BELFAST.

MAKERS BY APPOINTMENT TO HIS EXCELLENCY THE LORD LIEUTENANT OF IRELAND.

Abyssinian Expedition. Inman Steam Ship Company. Oceanic Steam Ship Company.

CONTRACTORS FOR THE Anchor Steam Ship Company. Montreal Steam Ship Company. Pacific Steam Ship Company.

Cunard Steam Ship Company. National Steam Ship Company. Kingston and Holyhead Royal Mail.

The following List of their preparations is worthy of the attention of Chemists:-

Kali, or Potass Water. Soda Water. Seltzer Water. Lithia Water.

Lemonade. Summer Beverage. Lime Juice. Lime Juice Syrup.

Aerated Sarsaparilla. Dandelion. Quinine. Carrara Water.

MONTSERRAT" LIME JUICE CHAMPAGNE (Aerated).

The Machinery and Appliances used in the Laboratory and Factory for their production are of the most approved construction; the Water and all the Materials used are of the highest degree of purity; and as the greatest care is exercised in their manufacture, they may be relied on as absolutely free from organic and mineral contamination.

Testimonials from the Medical Profession, from accomplished Analysts, and from Public Men eminent in Literature, Science, and Art, at once give an assurance of the excellence of these Beverages, and show the universal esteem in which they are held.

International Recognition has been given to their merits at various Exhibitions all over the World. Eight Gold and Prize Medals have been awarded.

All Goods ordered for Export are specially prepared and packed for their respective destinations, and are guaranteed to retain their qualities unimpaired. Terms and Prices may be obtained on application to-

### CANTRELL COCHRANE.

Nassau Place.

Cromac Building,

14 & 16 Union Street,

or, 53 Surrey Street,

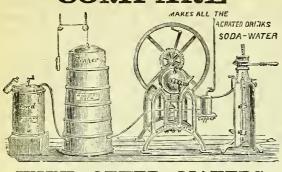
DUBLIN.

BELFAST.

GLASGOW.

TO HER MAJESTY'S PURVEYORS IMPERIAL HOUSES 0FPARLIAMENT.

### COMPARE



WITH OTHER MAKERS.



N. G. WILCOCKS'

# SODA WATER & LEMONADE MACHINES.

THE Opinions and Testimonials which have been published must convince everyone that Wilcocks' Machinery is quite satisfactory. Hundreds of factories are fitted or supplied with these Machines, and testimonials extending over many years are so numerous that though several hundreds have been printed, a very much larger number has been received.

N. G. WILCOCKS has had a long practical experience, and gives his undivided attention to this branch of his business. Every portion of the Machines he makes has had his most diligent study for years past, and his inventions and designs have been approved and usel by some of the most eminent Aërated Water Makers in the kingdom. All his customers, British or foreign, may be assured of his personal attention to their orders.

All Wilcocks' Machines are made on the continuous process direct-action Bramah principle; the solid plunger works through the bottom of the rump in a ring or collar of cupped leather; the valve body is at the top of the pump. Constant and energetic endeavours have been given to make these Machines the most perfect in existence, and these endeavours have been successful. Mr. Wilcocks can introduce his customers to factories where they can see his Machines in full and profitable operation, and so have an apportunity of judging for themselves.

Wilcocks' "Favourite" Machine is really the favourite among makers; most intending manufacturers purchase one of the four sizes in which it is made. The full sized Machine, with dial and water gauges, and gas work, as exhibited at the recent Mineral Water Trade Exhibition, Agricultural Hall, London, sells at £42 10s. Hundreds of these have been sold during the last few years, and they are generally esteemed first-class moderate priced Machines.

Wilcocks' Bottling Apparatus is the result of prolonged study; it is the simplest in use, and is consequently the most

easily repaired, while it is quite as efficient as the most expensive.

The "Eclipse Filling Machine," at £4 10s., can be so confidently recommended that the money will be returned in any case where it fails to give satisfaction. It is hoped that its very low price will not raise a prejudice against it.

A simple contrivance for Syruping has just been perfected by Mr. Wilcocks, and particulars will appear in future announcements.

His Soda Water Machine makes 200 dozen bottles a day with hand power; more can be turned out if a small motor, such as a steam, air, or water engine, be employed. Any filling apparatus, patent or not, for patent or corked bottles can be attached to this machine.

Mr. Wilcocks has very complete plant, tools, and stock, and employs a staff of highly skilled and experienced workmen. Every part of his machines is made by his own workmen from the best materials. The copper gun-metal and English tin are of the best obtainable quality; sound, well-seasoned oak is used for the cooperage.

By thus making even the earliest stages of the machines, all intermediate profits are avoided, and the quality of the material and the soundness, accuracy, and finish of the workmanship can be guaranteed. Every machine is carefully tested by actual use before it is sent out. Although Wilcocks' Machinery is low in price, it is confidently claimed that it will be found equal in every respect to the best in the market.

Every process of manufacture can be seen in active operation at Bath.

Mr. Wilcocks has had long experience, not only in machines, but in every other requirement of the Aërated Water Trade, and he is prepared to supply formulæ for bottled drinks, full directions for manufacture, plans and estimates for complete factories, and all information necessary to ensure success in this lucrative business.

ALL ORDERS ARE PROMPTLY EXECUTED.

N. G. WILCOCKS, SODA WATER MACHINIST, BATH.



1800.

OTHER MAKERS.

FILL PATENT

Will fill Codd's, Lamont's, Barrett & Elers', AND OTHER PATENT STOPPER BOTTLES.

All the Patent Bottles brought to Wilcocks' Stand at the MINERAL WATER TRADES SHOW, in October last, were filled with this Machine, in the presence of the Mineral Water Makers.

The following Prices with those of other Makers.

I full-size Machine, to make 200 dozen per day by hand power (Dial Pressure and)	£50	0	0
small Machine, to make 100 dozen per day by hand power {and Bo thing Rack}			
smaller Machine, to make 60 dozen per day by hand power (included with each.)	£30	0	0
Wiring Stand or Tying Stool	£1	10	0
Bottle-Washing Apparatus for Power	£1	5	0

A printed Book of Testimonials and opinions from buyers and users of N. G. W.'s make Soda Water Machine Engines and

collers, also new Illustrated Descriptive Catalogue, sent post free to any part of the globe upon application.

A number of the above Machines can be seen in different stages of progress at this Manufactory. Inspection, and a visit rom an intending purchaser, is invited to examine the weight, strength, size, capacity, quality, finish, and price in this Machine, nd the testimonials from large numbers to whom this Machine has been supplied in years past. It required, a written guarantee given to a purchaser with each Machine.

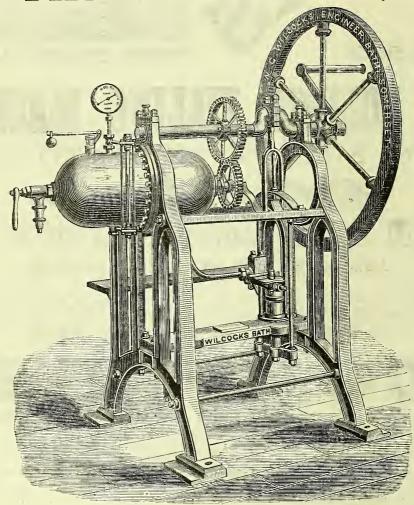
complete Machine, with Vertical Boiler and Horizontal Steam Engine, to make 300 dozen per day, with all Mountings . £91 10 0 complete Machine, with Vertical Boiler and Horizontal Steam Engine, to make 2,000 dozen per day, with all Mountings, ready for work . . £150 10 0

NATHANIEL GEORGE WILCOCKS, ENGINEER, BATH.

# WILCOCKS' LARGE SIZE SODA WATER MACHINE,

ON THE CONTINUOUS PROCESS, BRAMAII PRINCIPLE,

THE "FAVORITE,"



With Plunger  $2\frac{5}{9}$  inch diameter, and a Gun Metal Condenser of about Seven Gallons. This magnificent powerful machine is superbly finished in a superior manner, all the working parts being carefully fitted, accurately true, and the skill and workmanship of the highest class throughout. This machine will make over 500 dozen per day of highly charged gaseous water. It has Dial and Water Gauges, Safety Valve, Nipple Cock for Knee-bottling, and Wilcocks' new admired arrangement, with four screw-down Wilcocks' Lever Cocks he has lately introduced, with a proper four-way and down-pipe from underneath Condenser, not shown in engraving. There is no Indiarubber in these cocks, therefore the goods cannot come in contact with it. The crank is of best wrought iron of our usual type and of great strength. Fast and Loose Pulley and Fly Wheel, ready for bolting down and putting to work at once.

Larger or smaller Gas Work, with either Lead or Oak Generator, as may be desired, simply charging the difference in price.

N. G. WILCOCKS, SODA WATER MACHINIST, BATH.

## SYRUPING AND BOTTLING IN ONE OPERATION.

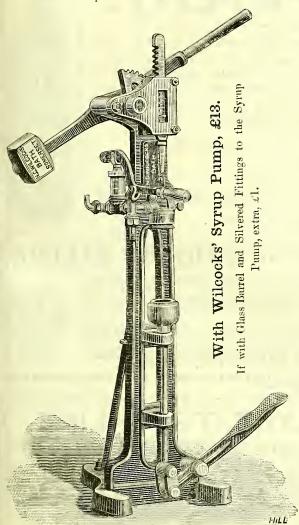
# QUADRANT RACK BOTTLING MACHINE,

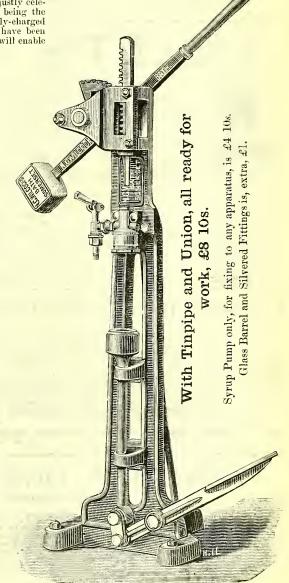
WITH WILCOCKS' SIMPLE NEW SYRUP PUMP ATTACHED.

This, if required, is easily taken apart and put together again by an inexperienced person, and is so simple eannot get out of order; ean be adjusted to measure the quantity desired; has fewer working parts than any other Syrup Pump; and, although it is novel and different to those of other makers, we say it will properly syrup and charge the

bottles perfectly, quite equal to the most expensive.

We recommend to be used with annexed Soda Water Machine our justly celebrated Quadrant Rack Bottling Machine for filling Corked Bottles, as being the cheapest and best for the purpose, filling the bottles with a more highly-charged gaseous water than any other style of bottling apparatus. Hundreds have been made and supplied; it is very easy to work; about an hour's practice will enable a person to bottle who never bottled before.





The Guards are not shown in Engraving so that the Machine can be more clearly seen, but they are supplied and included in the price quoted above, although not shown.

N. G. WILCOCKS, Engineer,
BATH CITY BRASS FOUNDRY AND IRON WORKS, BATH.

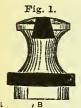
### FOREIGN MINERAL WATERS.

FOREIGN LIQUEURS.
FOREIGN WINES.
FOREIGN SPIRITS OF EVERY DESCRIPTION.
ANGOSTURA BITTERS.

APPLY TO

JAMES SMITH & COMPANY, IMPORTERS,
LIVERPOOL: 9 LORD STREET.

# VALLET'S PATENT.



The Stoppers are made in six different sizes—Nos. 1, 2, 3, 4, 5, and 6. Nos. 4, 5, and 6 are most suitable for general use, the Bottles adapted to which having sufficient capacity in the mouth to allow a copious flow of the liquid, whilst Nos. 1, 2, and 3 are specially made for Bottles which have only a small mouth, thus retarding the flow of the liquid, and causing the evaporation of the carbonic acid gas before the Bottle can be emptied.

Fig. 3.

ROYALTY FREE.

All Communications to be addressed to

L. VALLET, 49 Everton Road,



Fig. 2.

New Stopper.

# LAMPLOUGH'S EFFERVESCING PYRETIC SALINE.



HAVE IT IN YOUR HOUSES AND TRAVELS, USING NO OTHER SALINE; it gives instant relief in Headaches, Sea or Bilious Sickness, and quickly cures the worst form of Eruptive or Skin Complaints. The various diseases arising from Constipation, the Liver, or Blood Impurities, Inoculation, the results of breathing air infected with Fevers, Measles, or Smallpox, are frequently prevented and certainly cured by its use.

The sale of these Saline Salts having greatly increased during the past few years, I beg most cordially to thank those who sell and recommend the same, and also to inform intending dealers that they will find Messrs. Barclay, Edwards, Maw, Newerry, Sanger, Sotton, and the Wholesale Houses generally, ready to supply their wants. This Advertisement is found needful in consequence of the trouble, cost, and inconvenience in the keeping and collection of numerous small accounts. Note.—The Name, Trade Mark, Labels, Wrappers, &c., are all Registered and Entered at Stationers' Hall.

113 HOLBORN HILL, LONDON, E.C.



SPECIAL NOTICE.—Medical Gentlemen having fever cases, and desirous of trying the Saline, can have a single bottle at wholesale prices by sending their cards.

# PARNELL'S CHALYBEATE SALINE.



REGISTERED TRADE MARK.

An Agreeable Cooling Febrifuge and Tonic Aperient Effervescent Salt, being a Chalybeate Water in a solid form.

ANALYTICAL REPORT BY DR. T. REDWOOD.

As the result of a careful analysis I am enabled to state that Parnell's Chalyheate Saline is what it purports to be, a mild Chalyheate and tonic, possessing aperient and alterative properties to a sufficient extent to render it an efficient, and as I helieve, a valuable medicine. The ingredients are judiciously combined so as to yield, when mixed with water, an agreeable effervescing draught.

To be obtained in Pathle of the Paramaceutical Society of Great Briain.

To be obtained in Bottles, 2s. 6d., from SANGER & CO., NEWBERY & SON, and all Wholesale and Retail Chemists, and from

26 BUCKINGHAM PALACE ROAD, S.W. Show Cards and Handbills sent free on application. Paris Agent—M. SWANN, Rue Castiglione.

INDEX TO ADVERTISEMENTS.

See pages 49, 50.

# NEW AND IMPORTANT DISCOVERY.

FROM PURE JAMAICA GINGER.

e difficulty of using Ginger in the manufacture of "Ginger Ale," and at the same ne having a CLEAR and SPARKLING DRINK, has, after much labour and expense, been thoroughly overcome by

# Messrs. HARSTON & CO., of LEEDS,

ed they are now able to place before the public a BRIGHT and SPARKLING DRINK, made purely from genuine Ginger Root.

TRADE

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TRADE MARK

[Registered Label.

Registered Label.

CO.'S

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from Pure Jamaica Ginger. Carries a beautiful creamy head.

from Pure Jamaica Ginger. Wholesome and Refreshing.

from Pure Jamaica Ginger. A safe Drink for Ball-room or Cricket-field.

from Pure Jamaica Ginger. For railway travelling; driving, or exposure to cold.

from Pure Jamaica Ginger. Has wonderful nourishing properties.

from Pure Jamaica Ginger. Restores Circulation; is Warming and Comforting.

> from Pure Jamaica Ginger. Is Non-Intoxicating.

> from Pure Jamaica Ginger.

Recommended by the Medical Profession for Consumptive Patients.

MERIT, for superiority of quality, bury & Brown at the Exhibition of the Owens College, Manchester, on Meeting of the British Medicaliation, August, 1877.

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was awarded to Jewsbury Sanitary Appliances, at Or the occasion of the Mee

A CERTIFICATE OF

A CERTIFICATE OF MERIT awarded by the British Senitary Institute of Great Britain, after a deferred PRACTICAL TRIAL AND EXAMINATION, July 4th,

SBURY  $\mathbf{B}\mathbf{R}\mathbf{0}$ 

MANCHESTER

SODA, SELTZER, POTASH, LITHIA, &c., PURE LEMONADE,

AND TONIC. ALE. QUININE GINGER

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for purity and excellence of quality by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the Lemonade and Ginger Ale being procured from the fresh Fruit and Finest Jamaica Ginger, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The Soda Water is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of Pure Carbonate of Soda, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The Seltzer, Potash, and Lithia Waters are prepared with the utmost exactitude and the purest ingredients.

The New Quinine Tonic furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

Cautio

M. ROSS, the Original Patentee and Maker of The Celebrated Belfast Ginger Alc, cautions the Public that the "GENUINE" can only be had at

Water Works Belfast

NAME ON CORK, CAPSULE, AND LABEL REGISTERED

EXPORT ORDERS HAVE SPECIAL ATTENTION.

PROPRIETORS

Very advantageous terms are offered to advertise in the Daily and Provincial Papers, Patent Medicines and Proprietary Articles, which in many cases will be taken in payment instead of cash. Apply to

> MR. JOLLY.

The Eastern & Midland Counties Advertising Agency ST. GEORGE'S MIDDLE STREET.

NORWICH.

PACKING

Cases supplied and

MINERAL MANUFACTURERS

> Patent Ordinary Bottles. or

632 ROTHERHITHE ST. (late Trinity St.), ROTHERHITHE, S.E.

A Delicious, Sparkling, Phosphated Iron Beverage.—Non-Alcoholic.— A Brain and Nerve Tonic, and Nutrient Tonic Beverage.

RECOMMENDED

 ${ t BY}$ 

FACULTY:

From "The British Medical Journal," August 30, 1879.

Among the various medicinal and other exhibits at the recent meeting of the British Medical Association at Cork, to some which we shall hereafter direct attention, there was one which, to our own judgment, bore away the palm. We refer to the erated and phosphorated iron beverage which Messrs. Evans & Co. of Wrexham manufacture for David Johnson, Esq., .C.S., the patentee.

We had ample opportunities of testing its refreshing and invigorating qualities during our sojourn in the fair city of the treme south-west; and we can confidently recommend it to the attention of physicians and others who are occasionally at a loss hat to direct their patients to take when parched by feverish thirst or depressed by exhausting ailments-notably in cases here alcoholic stimulants would be prejudicial. We feel that it would be found exceedingly useful in mitigating the discomfort ttimes experienced by those suffering from the thirst, loss of appetite, and general malaise connected with the last stage of nthisis and chronic bronchitis.

We would also, from our observations and experience, advise its introduction into clubs, taverns, and places of public amuseent, where it would judiciously supersede vinous and alcoholic stimulants, seeing that it contains, as its name implies, lifeving ingredients in a form easily assimilated.

every Chemist that has introduced ZOEDONE has found a large and egularly increasing sale for it. It is put up in Champagne Bottles, and there s no trouble with empties, as the bottles are included in the price. Customers upplied with Pamphlets for distribution; also a special Circular for medical men stating the formulæ.

### should be anticipated by one week. Orders

Report on the ZOEDONE of Messrs. Richard Evans & Co., of Wrexham.

The Analytical Sanitary Institution, 54 Holborn Viaduct, London, E.C., Sept. 21, 1878.

I have carefully examined the new Aërated Mineral Water manufactured by Messrs. R. Evans & Co., and to which they we given the name of "ZOEDONE." I find the statements made respecting its composition to be fully borne out by the analysis. he "ZOEDONE" is a bright, sparkling, and very pleasant beverage, quite free from medicinal taste; indeed, it forms a most greeable and elegant vehicle for the administration of the Phosphates of Lime and Iron which it contains, and which are a complete state of solution. ARTHUR HILL HASSALL, M.D., London,

Author of "Food, its Adulterations, and the Methods of their Detection."

OEDONE is supplied direct by us and our Agents on the following Terms, Cash Prices, including bottles and package, free on Rails at Wrexham-6/6 per dozen in half Champagne Bottles (in 6 dozen cases). 12/- per dozen in large Champagne Bottles (in 3 dozen cases). 6d. per dozen extra on small, and 1/- per dozen on large, for export, packed in casks or cases. Trade Terms on application.

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Messrs. Raimes & Co.

,, Messrs. R. Sumner & Co. Manchester—Messrs. James Woolley,

Sons & Co.

NICE-Mr. J. Daniel.

Paris-Hogg, 2 Rue Castiglione.

PATENTEE-DAVID JOHNSON,

Ianufacturers, RICHARD EVANS & CO., Wrexham, North Wales.

### BISHOP'S

# GRANULAR EFFER

CONTAINS ONE GRAIN IN EACH DRACHM.

BEST REMEDY FOR HEADACHE.

CITEATE OF CAFFEINE is now recognised by the medical profession as the safest and surest remedy in cases of nervous or sick headache. In the effervescent form it is more agreeable to the patient, and its remedial action is more prompt. The salts with which it is combined, when in that form, have themselves a tendency to allay any irritation of the stomach.

Dr. BEARD, of New York, in writing of this Salt, says:—"Of the different forms of CAFFEINE I prefer the CITRATE, since it seems to accomplish the desired results with a smaller dose and more surely. When this remedy is given in a dose just adapted to the needs of the sufferer it quickly and perfectly removes the pain in the head and the wansea. I have known it produce this result in less than fifteen minutes.

"The use of CAFFEINE in headache seems to me to be one of the most important of the especial therapeutic advances of our time; it is a genuine and solid reality, the relief it affords being too speedy and too frequent to be accounted for by coincidence or mental influence.

"It is better to give the CITRATE OF CAFFEINE just as the headache is coming on; but it may be given at almost any stage, and when the proper does to the major and hear it away."

dose is taken it seems to take up pain and bear it away. The following are among the medical opinions which have been published respecting BISHOP'S GRANULAR EFFER-

VESCING CITRATE OF CAFFEINE :-

The British Medical Journal, Nov. 8, 1879, says:—"We have administered it in nervous headache, and in the malaise following an alcoholic debauch, with benefit."

"The Medical Times and Gazette, Nov. 22, 1879, says:—"The Granular Efferencescent Citrate of Caffeine provides a pleasant medicine which has been largely tried, and with no little success, as a remedy for sick headache and other nervous disorders."

BISHOP'S GRANULAR EFFERVESCENT CITRATE OF CAFFEINE is sold in bottles at 2s. 6d. each. With each bottle is supplied a wooden measure cup, which, when filled but not heaped, gives an exact dose. The GRANULAR EFFERVESCING CITRATE OF CAFFEINE should be taken at the commencement of an attack of headache, and the dose should be repeated in an hour if any pain should remain.

### BISHOP'S

Recommended expressly to medical practitioners as a pleasant and accurate method of administering the EXTRACT OF NUX VOMICA.

A wooden cup is supplied with each bottle, which, when filled (not heaped), contains one drachm of the Salt, and

represents exactly one-twelfth of a grain of the EXTRACT OF NUX VOMICA.

The Salt is perfectly soluble, and the bitterness of the medicine is thoroughly masked by its combination with an Sold in Bottles at 1s. 6d. each.

ALFRED BISHOP, Manufacturing Chymist, 17 Speck's Fields, Mile End New Town. London.

# J. H. CUFF'S MINERAL WATERS,

Atkinson St., Deansgate, MANCHESTER.

ESTABLISHED IN 1801.

SODA WATER (ordinary) SODA WATER B.P. SELTZER WATER LITHIA WATER POTASS WATER 15 grs., 20 grs., & 30 grs.

(each half-pint)

LEMONADE GINGER ALE GINGER BEER AERATED WATER without alkali QUININE TONIC WATER

LITHIA WITH POTASS WATER, &c, &c., Supplied in ordinary and half-sized bottles and in syphons.

Cuff's Waters are prepared expressly for a High-class Family Trade.

PRICES MOST REASONABLE. LIST FREE ON APPLICATION.

CARRIAGE PAID ON FULL GOODS AND RETURNED EMPTIES.

PUREST IN ENGLAND

MILLS & CO., Manufacturers of the Original BOURNE ARTESIAN AERATED WATERS.

ROURNE SODA WATER, unequalled its natural Alkalinity.

ROURNE POTASH WATER—a Special Remedy for Rheumatism and Gout.

ROURNE LEMONADE—Superior Quality. made from the Fruit.

ROURNE AROMATIC GINGER ALE---a Fine Tonic.

BOURNE LITHIA WATER—Specific for the Gout. Guaranteed to contain a fixed quantity of Lithis.

BOURNE SELTZER WATER—The natural

Alkalinity of the Bourne Artesian Well Water, combined with Artificial Salts, produces one of the best articles made. This Seltzer Water is well adapted for invalids for its purity.

When taken at dinner-time, it promotes digestion. Early in the morning, slightly aperient.

R. M. MILLS & CO., MANUFACTURERS, BOURNE.
Messrs. Padgett & Son, Wine Merchants, 27 Motcombe
Street, and Messrs. Hardy & Co., Chemists, 42 Fenchurch
St., corner of Mineing Lane, Wholesale Agents, London.
And their appointed Agents throughout the Kingdom.

# A DESIDERATUM SUPPLIED!

Important Notice to the Trade both at Home and Abroad.

By the introduction of WEN-HAM'S LIME JUICE SALINE to the notice of their Customers (which from its unique and attractive appearance it itself effects when displayed upon the counter), Chemists have the opportunity of considerably augmenting their returns by the sale of this entirely novel and elegant preparation, which—to enumerate some of its advantages—

Possesses in a complete and portable form the valuable anti-scorbutic, alterative, and general healthful properties of Lime Juice and Potash;

Rendering it in the highest degree a remedy at once palatable, refreshing, and health-sustaining;

Which with a total absence of qualities whereby its range of usefulness can be limited, as in the case of purgative and obviously weakening Tartrates of Soda, &c.,

Supply important desiderata that, considered in connection with the unapproached intrinsic value of the article,

Amply warrants the assumption of its obtaining the decided approval of the Public wherever introduced.

In bottles, 2/8 and 4/6 each; Cases for Export, 21/-.

Sole Manufacturers (Registered),

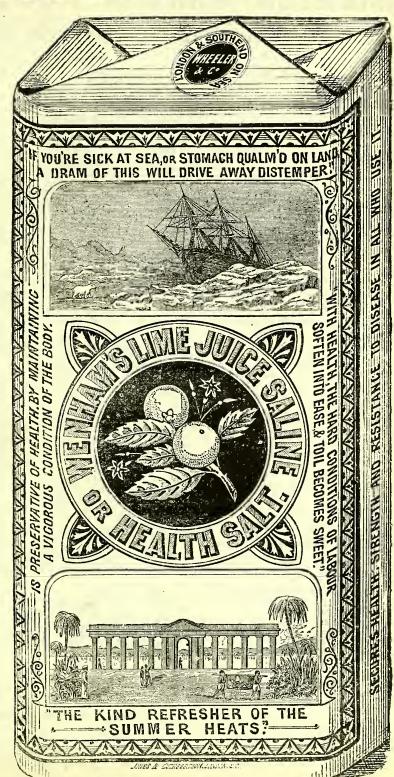
## WHEELER & CO.,

LONLON,

SOUTHEND-ON-SEA.

Kept by and may be ordered of the following London Ferms.

Messrs. Barclays; Edwards; Maw, Son & Thompson; Mather; Newberys; and Sutton.



# 

Retailed each.

Designed by MAJOR FRASER, of the ROYAL ENGINEERS. especially

for Officers' Kits. Weighs only 8 ounces.



It has been approved by the Authorities at the Horse Guards, and has been largely used in the Afghan and Zulu Expeditions.

No. 20 H.

Sample sent free by Post on receipt of FOUR SHILLINGS.

### DOMESTIC FILTER, NO. 27.



Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap. All sizes of this pattern can now be had with Patent Ice Compartment, which

renders this Filter the most perfect of

	reiri	gerators.	
	PRI	CES.	With Ice Compartment.
No. 0, capaci	ty & gall.	10s, 6d.	
No. A, ,,	1 ,,	14s. 6d.	17s. 6d.
No. B, ,,	2 ,,	21s. 0d.	25s. 0d.
No. C, ,,	4 ,,	32s. 0d.	36s. 0d.
No. D, ,,	6 ,,	42s. 0d.	48s. 0d.
No. E, ,,	8 ,,	52s. 0d.	60s. 0d.
No. F.	12 .,	70s. 0d.	80s. 0d.

.. 70s. 0d. .. 80s. 0d.

## UNIOUE STONEWARE FILTER, NO. 28.

No House should be considered as thoroughly furnished until it is supplied with one or more good Filters.

No Water should be used for Drinking or Cooking without being Filtered.

This Filter is made of a New Ornamental Stoneware, similar in shape to the Domestic Filter, and of two-gallon capacity. When arranged in a Hall or Conservatory, side by side with evergreens, the effect is very pleasing.

Price, with Silver-plated Tap, 30s.



### MAIN SUPP

SPECIALLY ADAPTED FOR Mansions, Schools, Hospitals, Public Institutions, Breweries, Distilleries, Soda Water Manufactories. Dye Works.

And all other Establishments where large quantities of

### PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows:-A, ½-inch or ¾-inch pipe .. .. £6 6s. B 1-inol pipe .. .. C, 1½-inch, 1½-inch pipe . . . . £15 15s. D, 2-inch pipe . . . . . £26 5s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver a supply of purified water at a rate of 50 to 1,000 gallons per hour, according to size.

Special Contracts entered into for Large Works, Institutions, &c., &c.,

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE. Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

EXTERIOR VIEW

### SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON. PARIS: 131 Boulevard Sebastopol.

NEW YORK: 194 William Street (H. R. Mensing, Agent). HAMBURG: 9 Deichstrasse (Joseph Schmutzer & Co., Agents).

# BILICATED CARBON FILTERS.

## PHON FILTERS FOR TRAVELLERS.

By means of these ters pure and perly wholesome water y be drunk from any d or stream by ply immersing the er therein and drawthe water through tube by suction. Each of these port-



used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

Filters may be They are readily cleaned from sedimentary matter by merely wing through the tube, and brushing the surface of the

Ting medium.		
-Pocket Filter, 21 inches diameter, in porcelain, with glass	3.	d.
mouthpiece, in decorated metal box	2	6
-Ditto, 31 inches diameter, in best stoneware	5	0
Ditto, ,, with silver-plated tap	7	0
-Emigrant's, 5 inches diameter, with silver-plated tap	12	0
-Pocket Filter, for carrying over shoulder, as supplied to the		
Forces in Abyssinia and in Zululand, and to the Ashantee		
Expedition	3	G
-Ditto, nickel-plated, designed by Major Fraser, R.E., and specially		
recommended by the Horse Guards for Officers' kits	5	0

### TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

O, 2s. 6d.; A, 4s.; B, 5s. 6d. Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

### POROUS TERRA COTTA FILTER, NO. 29.

Shape of this Filter as Fig. No. 24. O, 2s. 6d.; A, 4s.; B, 5s. 6d.

### SILICATED

 $2in., 1s. 6d.; 2\frac{1}{4}in., 2s. 6d.; 2\frac{3}{4}in., 3s.; 3\frac{1}{2}in., 4s.; 4\frac{3}{4}in., 5s. 6d. ea,$ SPECIAL QUOTATIONS FOR QUANTITIES.

## PRIZE FILTER,

This Filter is constructed in the form and colour of an Etruscan Vase, having inside it a movable pan, into which the Silicated Carbon filtering medium is fitted.



### PATTERN NO. 23.

The exterior is made Perous Ware, which acts with remarkable power as a Refrigerator, keeping the water deliciously cool. Capacity, about Two Gallons.

PRICE, WITH SILVER-PLATED TAP, £3 10s.

# TTERSEA LONDON E SILICATED CAREO WILLES LOVE PATENT

### DINING-ROOM FILTER.

No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

PRICES.											
A										35s.	
B								••		80s.	
Α,	with	Ice								423.	
				(Ne	w Pa	tent	)				
В,	with	Ice								100s.	
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133			· (B) nent							Hotels	
	160/1	C3141	неть	1100	1163. 1	Gune	146014	Dui	o, a	C+	

### REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A

COOL DRAUGHT OF PURE WATER.

Price, with Silver-plated Tap .. .. Ditto, ditto, with Ice Compartment 31s. 6d. 42s. 0d. Capacity, Two Gallons.

Specially adapted for Tropical Climates.



ORTABLE FILTER, No. 34, for Travellers at Hotels, Families at the Seaside, Pic-nics, &c. Made in Marbled Porcelain, with Cover. Can be placed in a jug, decanter, or other vessel. Price 7s. 6d. each.

LICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON,

PARIS, 1878. AWARD, THE ONLY GOLD MEDAL FOR PLUMBAGO CRUCIBLES.

Moscow Exhibition, 1872, Gold Medal, SOLE award.

Amsterdam Exhibition, 1869, Highest A Amsterdam Exhibition, 1869, Highest Award. Havre Exhibition, 1868, ONLY First-class Medal (Silver) Awarded.

Paris Exhibition, 1867, the ONLY First-class Silver Medals, Classes 40 and 51.



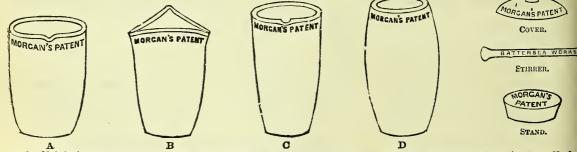
ONDON, BATTERSEA

THESE Crucibles (MORGAN'S PATENT) were the only ones to which Prize Medals were awarded in London, 1862; Dublin, 1865; New Zealand, 1865 and Oporto, 1865. They have been in use for many years in the various Government departments of England, France, Germany, &c., and have bee adopted by most of the large Founders, Engineers, Railway Companies, and Refiners at Home and Abroad. The capabilities which have now for s many years distinguished

MORGAN'S PATENT CRUCIBLES

are the following:—Their quality is uniform. They withstand the greatest heat without danger. Their average durability for Gold, Silver, Copper, an other ordinary metals, is 40 to 50 pourings; in some cases over 100 have been obtained. They never crack, and heat more rapidly than any other kind. One annealing only required. Change of temperature has no effect. They can, when hot from the furnace, be dipped in cold water with safety. They can, when hot from the furnace, be dipped in cold water with safety. They can, when hot from the furnace, be dipped in cold water with safety. They can, when hot from the furnace, be dipped in cold water with safety. They can, when hot from the furnace, be dipped in cold water with safety. They can, when hot from the furnace, be dipped in cold water with saving of Fuel has been demonstrated to amount to a ton and a half to every ton of Stee fused. For Zine they last longer than iron pots, and save the great loss which arises from mixture with iron. Those for Malleable Cast Iron show a average working of several days, doing each day nearly double the work of any other Crucible.

As these Crucibles last longer than others, it follows that the Saving of Metal must be great, because to each worn Crucible a quantity of metal adheres. In fact, comparing Morgan's Patent with other Crucibles, the Saving of Metal, Time, and Fuel, alone is more than equivalent to their Cost.



-Made in sizes varying from 2 ozs. to any required capacity, and are marked by the quantity of kilogrammes they will contain—thus: No. 5 wi contain 10 lbs. of copper; No. 100, 200 lbs.; No. 200, 400 lbs.; No. 200, 600 lbs.; No. 400, 800 lbs.; No. 500, 1,000 lbs.

-Differ in shape, but correspond in all other respects with A, and are similarly marked.

-Made in sizes varying from 20 lbs. up to 300 lbs. capacity, are marked in English pounds—thus: a Crucible marked 60 will contain 60 lbs.

-Made expressly for melting Steel, in various sizes.

COVERS-Are found of service in many descriptions of melting, the metal being kept free from outside impurities and oxidation. STIRRERS-Are used by melters of precious metals for stirring and amalgamating. STANDS-Placed under the Crucibles, hasten the operation of melting, and obtain even bearing above bars.

### MORGAN'S CRUCIBLES PATENT

CAN BE MADE

SHAPE REQUIRED, AND



TO ANY SIZE OR

ARE THUS STAMPED.

REGISTERED TRADE MARK.

CAUTION .- CARE should be exercised that users obtain Morgan's Patent Crucible

SOLE **MANUFACTURERS:** 

THE PATENT PLUMBAGO CRUCIBLE COMPANY, BATTERSEA WORKS,

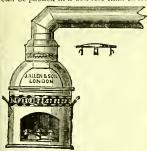
# J. ALLEN & SON'S

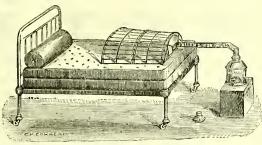
### TURKISH HOT-AIR VAPOUR BATH.

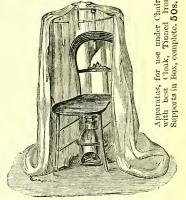
Can be used for Hot Air or Vapour, a Medicated or Mercurial Batb, General and Local Application.

Apparatus complete, as Fig. 1, 30s.; Apparatus complete in box, with pair of Wicker Frames for Bed, 45s.

Lancet, February 23, 1878.—"This instrument is very complete, and probably as good a form as can be devised for either a Turkish Bath or a Vapour Bath in a domestic way. What gives great additional value to it is that every presention has been taken to make an accident impossible. It is portable, and can be packed in a box less than twelve inches square. It is cheap, and it acts promptly.







Sanitary Record, July 27, 1877.—"Will be found luxury, as well as a valuable remedial re-

London Medical Record, August 15th, 1877.—
"The Turkish Hot-Air and Vapour Bath, introduced into use by Mesrs. Allen, is really invaluable for safety, convenience, and simplicity."

British Medical Journal, December 8, 1877.—
"Possesses in an eminent degree the very desirable qualities of efficiency, portability, and cheapness, thus meeting every require-

Medical Press, January 23, 1878.—"Medical men should keep among their stock of Instruments this useful apparatus."

Medical Times and Gazette, September 29, 1877.-"Deserves to be much more widely known and

"Deserves to be much more whelly known and used than it seems to be at present."

Medical Examiner, October 11, 1877.—"It is not, perhaps, going too far to say that such a contrivance as Allen & Sou's Portable Turkish Bath should find a place in every well-regulated bousehold."

J. ALLEN & SON'S

### BRONCHITIS KETTLE,

WITH STAND AND SPIRIT LAMP.

Price 15s.

This article has many advantages over the ordinary Bronchitis Kettle. It can be placed on table by side of bed, the patient receiving the full benefit of the vapour.

Can be used for a Vapour Bath.



J. ALLEN & SON'S

# BRONCHITIS

FOR USE OVER FIRE.

Strong, and Seamed together,

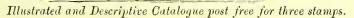
Price 7s. 6d. HOLDS FIVE PINTS.

As recommended by the Lancet, Sanitary Record, &c., &c.

Medical Times and Gazette, March 16, 1878.—"The kettles are strongly and extremely well made, and they are cheap. We have no doubt that they will be found very bandy and of very good service in cases of severe bronchitis, of croup, of trachcotomy, or of any other cases where a burnid atmosphere is desirable."

J. ALLEN & SON'S FOR INFANTS

The Stand is supplied with Pan for Night Light, with which any Food can be kept warm, and a Spirit Lamp, by which water may be boiled. Each article has a Panican for Infants' Food, Saucepan with Wood Handle for Liebig's Food, and Kettle for Tea, Coffee, &c. Price, complete,



FOOD WARMER. OR INVALIDS.

> The most useful, complete, and elegant, yet introduced. Any Night Light can be used.

> > RECOMMENDED BY

THE CHEMIST & DRUGGIST, December 15, 1877.

THE PHARMACEUTICAL JOURNAL,

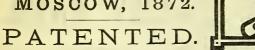
December 29, 1877.

THE BRITISH MAIL, Jan. 1, 1878.

& 65 MARYLEBONE LANE, OXFORD STREET, LONDON, W. AGENTS-MESSRS. S. MAW, SON & THOMPSON.

# 74 (0)

Grand Medal, MOSCOW, 1872.





Grand Medal, VIENNA. 1873.

MADE TO ALL SIZES.

At the CENTENNIAL PHILADELPHIA EXHIBITION the Highest Honours

FOR THEIR EXHIBIT OF WERE AWARDED TO

### ENTEES AND ORIGINAL

| Made in all Colours. | Burn to the End. Made in all Sizes. Made in all Qualities. Fit all Sockets.

| Require no Scraping. Require no Cutting. | Are Safe, Economical, Cleanly.

CANDLES SPECIALLY ADAPTED FOR EXPORTATION TO HOT CLIMATES.

OZOKERIT (Patented). In handsome 1-lb. Packets.

These beautiful Candles are made in ALL SIZES, and from their great hardness and non-liability to bend when exposed to a high temperature, are well adapted for Ball Rooms and Tropical Climates. They possess the highest illuminating power of all descriptions of Candles.



### UNITED SERVICE

Of highly emollient properties, and singular durability of Perfume.

WHOLESALE DETAILED PRICE LISTS OF



J. C. & J. FIELD. Patent Candle Works, LAMBETH MARSH, LONDON, S.E.

### NATALI.

SHOP FITTER AND GLASS SHOW CASE MANUFACTURER,

207 OLD STREET.

Almost opposite Great Eastern Street.



### BENT PLATE GLASS COUNTER CASES,

Glass Ends, Spring Fastenings, Looking Glass Backs, Velvet Lined.

MAHOGANY, PLAIN OR EBONIZED. Long Wide Deep £ s d. Wide Deep £ s. d. Long  $8....214 0 \\ 8....3 3 0$ Flat Plate Glass Cases, 20 in. wide, 21s. per foot run.

A Large Assortment of Chemists' Fittings, Utensils, &c., New and Second Hand always in stock.

### COMPLETE SHOPS FITTED FROM £70.

Bottles and Glass Cases Included.

TELEGRAMS ATTENDED TO. ESTIMATES FREE.

### HANDSOME CHEMIST'S SHOP FITTED COMPLETE

WITH ALL NEW GOODS

INCLUDING GLASS SHOW CASES. GOLD-LABELLED SHOP BOTTLES, JARS, &c.,

For £75.

Retail and Dispensing Counters, Shop Drawers, Window Enclosures, Wall and Counter Bent, Flat, and Upright Show Cases, Enclosures, Wall and Counter Bent, Flat, and Upright Show Cases, Dispensing Screens, Show and Soda-water Stands, Sponge and Cigar Cases, Tea and Coffee Bins, Window Carboys, Specie Jars, Labelled Shop Bottles and Jars, Store Bottles and Boxes, Tea, Coffee, and Sugar Mills, Tea, Coffee, and Store Canisters, Oil and Treacle Cisterns, and every description of new and secondhand Shop Fixtures, Office Furniture, and Utensils required by the various Home and Colonial Trades. Three extra Show Rooms have just been added, to which an inspection is invited.

# RAYNER.

WHOLESALE AND EXPORT MANUFACTURER OF

MEDICAL AND GENERAL SHOP FITTINGS. EXHIBITION AND COUNTER SHOW CASES, SHOP FRONT BUILDER.

FIXTURE DEALER, AND MEDICAL LABELLER.

SHOW ROOMS AND OFFICES:

### 333 Kingsland Road.

FACTORIES:

2 Downham Road, Kingsland, and Whitmore Road, Hoxton, London; N.

# IMPORTANT NOTICE TO CHEMISTS.

wing to the unscrupulous methods and false assertions employed by an irresponible vendor of India Rubber Porous Plasters, we feel constrained to state that our

# INDIA RUBBER POROUS STRENGTHENING PLASTERS

re guaranteed not to contain a single atom of Lead or any other ingredient calcuated to injure the consumer; on the contrary, THEIR COMPOSITION IS PURE. YEGETABLE; in quality and general appearance they are unsurpassed by any naker, and can be obtained by the gross at £1 16s., less 10 per cent.

### THE "LANCET."

"Messrs, SEADURY & JOHNSON have produced a list of Plasters, all made with India Rubber as a basis, which are elegant, stick well, are exible, easily adapting themselves to the folds of the skin, occasion no inconvenience to the patient, and have the appearance of being made with faith-alness to the British Pharmacopecia. One Plaster worthy of especial praise is the Salicylated Isinglass: it is flexible, and on being slightly wetted takes a good adhesive plaster for surgical purposes."

### THE "MEDICAL PRESS AND CIRCULAR."

"Among more recent and valuable Pharmaceutical improvements we would draw the attention of the reader to an elegant and convenient lot of lasters prepared by SEABURY & JOHNSON. We have recently tried some of them, and find them to be, severally, very neat, clean, and efficacions reparations. India Rubber has been used as a base in the preparation of the Plasters, by which means the medicinal substances used are protected. Vith regard to their therapeutical efficacy, and the style in which they are got up, we can speak from experience. Among the other Plasters which have iven us great satisfaction, we may mention those in which Belladonna and the Spanish Fly are, respectively, the chief ingredients."

### "LONDON MEDICAL RECORD."

"Messrs. SEABURY & JOHNSON, of 28 Red Lion Square, London, have forwarded to us a series of Plasters made in a style which deserves warm raise. All of them are of the best make that we have yet seen, and, taken as a series, constitute a considerable improvement in the manufacture of fedicinal Plasters, of which surgeons and physicians will, on inspection, easily realise the value. Their Salicylated Isinglass Plaster, spread on strong raterproof cotton cloth, and applied by wetting, is the best surgical adhesive plaster which we have seen. The plaster itself is made of pure gelatine, and antiseptlo in character; it adheres firmly and closely on being wetted with a sponge; it does not spoil in any climate. It is obviously from its unufacture calculated to last much longer than the ordinary adhesive plaster. The Mustard Plaster, the Capsicum Plaster, India Rubber Blister laster, and Pitch Plasters are all equally deserving of commendation."

The "British Medical Journal," "Medical Times and Gazette," "Chemist and Druggist," and many of the Provincial Medical ournals have noticed our productions as worthy of special commendation. Our improved Pharmacopæia and Surgical Plasters in India Rubber ombination overcome all objections found in the use of plasters, and present the following advantages and qualities, which will be appreciated by every hysician, Surgeon, and Chemist :-

Perfect Cleanliness and Reasonable Price. Perfect Pliability in any temperature. Adhesion without Heat or Moisture. Combined India Rubber Prevents Decomposition. Being Porous they do not slide or move, thereby ensuring increased local action.

They remain serviceable longer than other plasters. India Rubber Preserves the incorporated Extract or Drug.

Our Mustard Plasters are spread on Cotton Cloth instead of Paper.
Our Isinglass, Court, Corn, and Bunion Plasters are all spread with Chemically-pure Fish Gelatine incorporated with

Our Isinglass, court, court, and butter and the court is all court is the supplication of the slightest moisture; in addition to its more susceptible and greater adhesive properties it is rendered antiseptic.

Every Pharmacopeia Plaster gnaranteed to be of Official Strength. We also manufacture in addition to our list of India Rubber Plasters, in the most approved form and improved quality. Mustard, Silk, Isinglass, Medicinal, Corn, Bunion, and Court Plasters in great variety.

If our India Rubber Porous Strengthening Plasters possess any superiority over similar articles it is owing to an increased local action. All Porous Plasters are packed two dozen in a box, and are fully warranted to give perfect satisfaction. We quote a few of the more prominent kinds, subject to 10 per cent. discount monthly.

ber	Cent	. ui:	scount in	onthry.							
									Surgeons' Rubber Adhesive Plaster, 7 in. x 1 yd Per doz. Rolls £	0 17	0
a Ru	bber P	orou	s Strengther	aing Plasters		1 0	£1 16	0	Mustard Plasters (10 in a box), on Cotton ClothPer doz.	0 10	0
"		,,	Arnica	,,	**********	1 0	2 4	0			
22		"				0	2 17	0			
22		,,	Belladonn	a (B.P.) ,,	**********	1 6	2 11	0			
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39		9.7	Poor Man	5 11	***********	. 0	2 4	0			
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### BENSON'S CAPCINE POROUS PLASTER,

The most active external remedy known, is a great improvement on the slow action of the ordinary Porous Strengthening Plaster, and was specially recommended by American Medical Jurors, as an article of gennine merit. Per dozen, 8s. 6d. 10 per cent. discount.

Our goods can be obtained from all Wholesale Druggists, Patent Medicine Dealers, and Druggists' Sundriesmen. Complete Price Currents of our Plasters sent to any address ou application. Inquiries and correspondence promptly auswered.

SEABURY & JOHNSON, 1 and 2 Australian Avenue, E.C.

### ENO'S "FRUIT SALT."

"FRUIT SALINE," OR "FRUIT POWDER!

### ENO V. STEPHENS IN THE COURT OF CHANCERY.

### Shorthand Writer's Notes of Vice-Chancellor Bacon's Summing-up and Judgment.

Sir HENRY JACKSON, Q.C., on proceeding to sum up in detail on the ridence and arguments in the case, was stopped by the VICEevidence and arguments in the cas CHANCELLOR in the following words:-

Sir HENRY JACKSON, Q.C., on proceeding to sum up in detail on the evidence and arguments in the case, was stopped by the VICE-CHANCELLOR in the following words:—
Sir Henry Jackson, I do not think I ought to trouble you. The case has been discussed at very great length. I confess somewhat to my astonishment when Mr. Hemming declined to adopt the evidence as it was before the Court of Appeal, and put the Plaintiff to prove by the same evidence the same facts which had been proved hefore, I was under the impression that he meant to call witnesses on his own hehalf. If that had been, as it probably may have heen his intention at that time, there would have been a reason perhaps for repeating over again at very great length and considerable expense, of course to somehody, the evidence upon which the Court of Appeal had acted—I say nothing about what was done in this Court, but the Conrt of Appeal had acted upon that evidence. The case, however, concludes, and no evidence whatever is adduced by the Defendant—not even his own statement in his Defence is verified by his own affidavit. What is to be done with a case like that? The whole principle of the case was decided upon the first occasion. The Court of Appeal thought it right to adopt that restriction which I had thought it right to adopt, not to extend the Injunction further than the then present exigency of the occasion required. Not one word of the judgment of the Court of Appeal shows that there should be any restriction, or that there should he any restriction when the case came on for hearing. Now it comes on for hearing upon precisely the same evidence, and the evidence, among other things, is, that in the circular which accompanies this hottle of Salt, the words to which the Plaintiff particularly objects are repeated by the Defendant, and repeated by means of copying the Plaintiff's circular. Mr. Giffard says nobody huying the bottle would think of looking at the circular, for it is enclosed in the wrapper, and not even visible to the eye. But the ca-e is

he has not "at any time since the month of August, 1877, used the words Fruit Saline, or Fruit Powder, in any lahel or advertisement or otherwise in connection with the sale of the said preparation." Under the old system if a defendant had put in his answer, as he must, upon oath, he might perhaps have read that passage and said "the Plaintiff's allegation in that respect is denied." The Defence is not put in on oath and the Defendant declines to pledge his oath to that fact. But it does not rest there; for the evidence is clear and conclusive that after the month of August 1877, when the Plaintiff not without some degree of forhermance. August, 1877, when the Plaintiff, not without some degree of forbearance, as it seems to me, was content to take the Defendant's word that he would as it seems to me, was content to take the Defendant's word that he would not repeat that offence which the Plaintiff complained was doing him that injury which he thought le was suffering, he did, in spite of his promise, repeat that which the Plaintiff called an offence and believed to he an injury to him. The case comes to a hearing, the Defendant insits upon the Plaintiff proving his case. At the Defendant's instance the Plaintiff bas proved bis case, and, among other things, has proved the utter falsehood of that Defence which is set up in the paragraph which I have read. The matter, therefore, is wholly without doubt, without defence, without excuse of any kind that I can perceive, because, when I am told that I must consider what the intention of the parties was, and when I am told, moreover, that there is no evidence that anybody has heen deceived, and the Defendant in his defence says nobody has heen deceived. his intention to over, that there is no evidence that anybody has been deceived, and the Defendant in his defence says nobody has been deceived, his intention to deceive is not contradicted. That is what the Plaintiff inputes to him; and that is what, I think, the Plaintiff establishes not only from the simplicity of the sign, but from the fact that, when the complaint was first made in August, 1877, they were words which the Defendant admitted he had no right to use. For what reason? Because they were calculated to deceive—calculated to represent the Defendant's goods as those which the Plaintiff was selling nudger the title which back decired.

had no fight to use. For what reason? Decause they were calculated to deceive—calculated to represent the Defendant's goods as those which the Plaintiff was selling under the title which he had adopted.

Upon the general case, therefore, in my opinion, the matter is beyond all donht. It is proved that the use of the word "Fruit" with other substantives, "Saline" and "Salt," and so on, has been made by the Defendant since the time when he promised not to make it, when he admitted it was unlawful, and which I bave no doubt whatever was wholly unlawful. It is said that he endeavoured to keep bis promise by pasting something over the word "Fruit." Well, if that meant anything it is a plain admission of the justice of the Plaintiff's claim in that respect. But how can I consider that that is keeping his promise? Whether that pasting over was to he effectual or not would depend upon the consistency of the paste or glue, or perhaps the humidity of the atmosphere or any other accident. That there was no intention to perform his promise, I am satisfied of, and that there has been no performance of his promise I think is clear.

Upon the general case, therefore, I think the Plaintiff is entitled not only to the Injunction in the terms of the Interlocutory Order, but upon those more extensive terms which the Plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

Then there is enabled the same and the same of the same and with the same of the promise of the promise of the paste of the promise of the plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

those more extensive terms which the Plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

Then there is another subject which is so intimately connected with that that I desired to hear them both together, and I am very glad I did, because; as Mr. Giffard has just told me, that is the main question in dispute between the parties. For the Injunction the Defendant does not seem to care much, though he has violated it, in my opinion, plainly; but he says the question is whether there is a title to register this Trade Mark for which the Defendant proposes to anniv. Now that depends upon the for which the Defendant proposes to apply. Now that depends upon the words of the Act of Parliament which have been used, the more important of which are "so resembling as to he calculated to deceive." That is a question not to be decided by eyesight; I am invited to lay these two devices side by side, and, since they are not identical and since there are

great differences in their external appearance, to decide that they are not calculated to deceive. To that word DECEIVE I have or guarrel with; it is used in the Act of Parliament, a right to criticisa ore quarrel with; it is used in the Act of Parliament, a livere to give one sense to it, it is plainly in my judgment calculated by the Defendant, meant and intended hy him, to deceive any person who is not vigilant enough either in eye or in ear to detect at once the difference between Vinous and Eno's, and the difference between Fruit Salt and any other salt, Eno's title being plainly upou his Trade Mark, Eno's Fruit Salt. It is not, as I have said, hy sight; it is not hy the use of a microscope; it is hy any other means of detecting more or less of resemblance that you can decide a question which the statute contemplates hy that I have referred to. But it is whether the Registry to register, is satisfied before he performs his function mark, that the applicant's mark does so resemble as deceive. Can any living man doubt that it is not only intended—but that it is also calculated—that is to say, mean for the purpose of deceiving—else why does he do it? The shas been said in the Judgment referred to, and all thin and inanimate world are open to the Defendant to male and inanimate world are open to the Defendant to male and inanimate world are open to the Defendant to male and inanimate world are open to the Defendant to male and inanimate world are open to the Defendant to male and inanimate world are open to the Defendant to male and inanimate world. as has been said in the Judgment referred to, and all thin and inanimate world are open to the Defendant to mal shall distinguish his goods from those of any other per shall distinguish his goods from those of any other per shall distinguish his goods from those of any other per shall distinguish his goods from those of any other per shall distinguish his goods from those of any other per shall distinguish his goods from those of any other per shall distinguish his goods from those of any other per shall be perfectly a shall distinguish the specific description which relates to Eno's Fruit Salt, the Defendant proposes to register a design in which the principal device is the stem of a vine with a bunch of grapes and some leaves, and a Latin motto around it, and it is to be called "Vinous Salt." If there was nothing in the case but the contrast of these two things, it might, perhaps, to some persons, who trusted only to their cyes, be said there was no resemblance between them, or no sufficient resemblance; but the Registrar is bound to take the whole case into his consideration; he is not to be baffled by any mere similarity or dissimilarity. That is not the way that the Court of Appeal, in the latest case that was before it—the Sheffled case—dealt with the question. The Defendant there had as good with the court of the properties of the cour

Mr. HEMMING :- Your Lordship will pardon me, I was only quoting the Master of the Rolls.

The VICE-CHANCELLOR:—I know, and have also clearly in my mind

the Master of the Rolls.

The VICE-CHANCELLOR:—I know, and have also clearly in my mind what the Master of the Rolls said and what he did not only in the "Dag and Porridge Pot" case, but in that case. The Master of the Rolls' indement takes a wide and comprehensive view of the subject. He refers to the statute only for the purpose of verifying and corroborating that view, but what he said was "an honeer man who wants to mark his goods never thinks of taking the device partly or wholly which some other tradesman is employing for the purpose of marking his goods," and that I take to be the true principle of the case.

And, taking all these things together, the Plaintiff's evidence in the first place, the total absence of evidence or statement on the part of the Defendant, excepting the ingrenious and elaborate statements which Counsel have addressed to me, there being no statement whatever by him at any time except that he admitted he had done wrong in using the word "Fruit," I am asked to say that there is no such resemblance between the commodities tendered in the shape in which calculated to resemblance between the commodities tendered in the shape in which calculated to the contract of the commodities tendered in the shape in which was the strictest words of the statute, but that there is a resemblance which has been carefully and intentionally calculated to deceive. And as the Defendant will not pledge his oath to a contrary intention I cannot come to a contrary conclusion than that the injunction ought to go in the terms in which the bill prays for it, extending it therefore beyond the Injunctions granted on the Interlocutory Order and upon the motion, to say that the Defendant is not entitled to register the device of a branch of a vine with a bunch of grapes upon it, and a Latiu motto oa it and the aam e"Vinous Salt." There is an end of it therefore.

Sir HERRY JACKSON:—Mell, my Lord, of course I must have the costs. The VICE-CHANCELLOR:—You must have the costs of botb.

Sir HERRY JACKSON:—Mell, in a Lati

your Lordship for the costs of taking the evidence.

Mr. HEMMING:—I do not think your Lordship is ever in the habit of giving costs of that kind, unless there is some special reason for taking the notes. I do not know whether my friend anticipates an appeal upon that evidence. I am sure he will not say so, and I do not think the Court is in the habit of allowing the costs of a shorthand note of the evidence under such circumstances. It is so taken by arrangement. It is not in every case where there is an arrangement between the two rides, and even when there is an arrangement, it is not in every case that the Court allows these costs. I ask your Lordship not to say anything about them unless a general rule is laid down that in every case either party may require a shorthand writer to be employed. We know that the rule is the other way.

The VICE CHANGELIOP.—So, for from loving down any rule, my

writer to be employed. We know that the rule is the other way.

The VICE-CHANCEILOR:—So far from laying down any rule, my notion of this particular subject of the costs incurred by the shorthand writer is that it outs must be the done without cooling an sinfector reason for it. Now the the cooling of the

no transcript taken.
Sir HENRY JACKSON:—I have the transcript here, and I was prepared

Sir HENRY JACKSON:—I have the transcript here, and I was prepared to sum up this morning.

Mr. HEMMING:—There was no occasion for it.

Sir HENRY JACKSON:—I do not want of course the costs of any of the specehes; I merely take the transcript of the shorthand notes of the evidence.

The VICE-CHANCELLOR:—I think that must be so, because for anything I know this day week the Lords Justices will have them in their hands.

Mr. HEMMING:—Then would be time to ask for it.

Sir HENRY JACKSON:—My Lord has decided.