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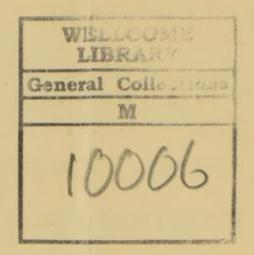
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### PREFACE.

This Illustrated List has been published by the Institute in the belief that it will be a useful guide to Professional Men and to the Public in the selection of Appliances and Articles included in the extensive scope of these Sanitary and Domestic Exhibitions.

Most of the new improvements and recent developments in Sanitary matters have been brought forward at the Exhibitions which have been held nearly every year since 1877. The present 4 PREFACE.

List refers only to the Awards made since the Incorporation of the Institute in 1888, but a classified List (not illustrated) of the whole of the objects to which Awards have been given previously to 1888 can be obtained from the Secretary.

The Institute has, by inaugurating a carefully devised system of judging, endeavoured to avoid the unreliability which so often attaches to Awards given at Public Exhibitions.

In the first place, uniformity in the principle upon which the Awards have been based is ensured, as far as possible, by giving stability to the Court of Judges—that is to say, that while gradual changes are made in the personnel of the judges, the larger number remain in office for several years. This method, of course, also gradually forms a very experienced body of judges.

In the next place the Institute has always been careful that the Board of Judges shall be composed of men of different professions—Engineers and Architects, as well as Medical Officers of Health and Chemists.

Lastly, the judges have laid it down as a guiding principle that the Awards are to be made primarily in the interests of the Public, and that the great point to be aimed at is to afford a trustworthy Guide to the Public as to what is good and reliable amongst the Sanitary Appliances and other Exhibits which have come before the judges. In order to effect this object no Award is, as a rule, given to any Exhibit unless some of the judges know by their own experience that it is of value, or unless it has been subjected to special practical tests carried out at the time of the Exhibition or subsequently.

Note.—In 1895 the Council decided to make the Awards at the Exhibition Silver Medals and Bronze Medals in the place of Bronze Medals and Certificates. As the Medals now given are intended to have the same significance as the former Awards, it has been thought desirable to alter the description of the Awards previously given in accordance with this decision.

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NOTE.—\* In the case of these Exhibits the Manufacturer's address is not known, or the Article in the form for which the award was given is not now on the market.

### ILLUSTRATED LIST OF EXHIBITS

## TO WHICH MEDALS HAVE BEEN AWARDED AT THE EXHIBITIONS

HELD IN CONNECTION WITH THE

### ANNUAL CONGRESSES.

In the following pages all the Exhibits for which Awards were given at the Exhibitions at Worcester, Brighton, Portsmouth, Liverpool, Newcastle, Leeds, Birmingham, and Southampton, are mentioned, but in many cases it is obviously unnecessary, for practical purposes, to insert an Illustration, and in these cases the description or name only of Exhibits are given.

## DIVISION A. -SCIENCE IN RELATION TO HYGIENE.

DIVISION A.—Section 3. Chemistry.

Case for Water Analysis, and Chemicals in "Soloids" for Water Analysis.

Silver Medal, 1898.

To Burroughs Wellcome & Co.

Description.—"Soloid" Brand silver nitrate, potassium chromate, sodium acid sulphate, potassium iodide and starch, zinc dust, soap, potasium cyanide, potassium permanganate, and capsules of Nessler's solution.

PRICES.—Water Analysis Case, fitted complete, with all necessary apparatus, £2 2s.; for export, strongly made, in waterproof canvas cover, £5.

Manufactured by Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.

### DIVISION A .- Section 6. Medicine (Preventive).

Sanitary Publications.

Silver Medal, 1890.

To W. H. Allen & Co., 13, Waterloo Place, S.W.

DIVISION A .- Section 7. Meteorology.

\* American Forecast Barometer.

Bronze Medal, 1892.

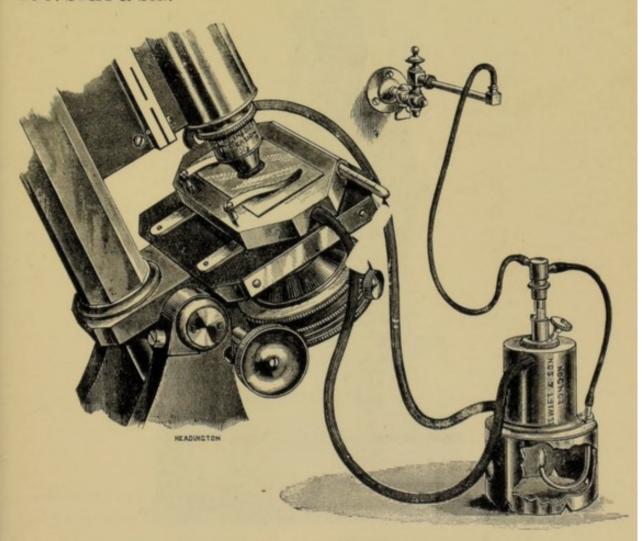
To Joseph Davis & Co.

### DIVISION A .- Section 8. Microscopy.

Microscopic Apparatus.

Silver Medal, 1890.

To J. SWIFT & SON.



DESCRIPTION. — Professor Schafer's Hot-water Circulation Stage can be readily adapted with a Regulator for maintaining even temperature for any length of time. This Stage is made so that the Abbe Condenser can be used in conjunction with it.

PRICE .- £3.

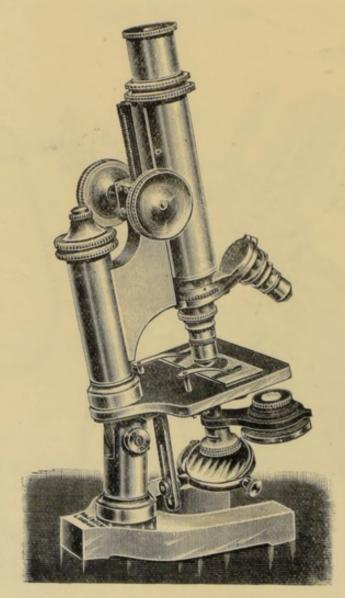
Manufactured by James Swift & Son, Tottenham Court Road, W.

DIVISION A .- Section 8. Microscopy. (Continued.)

Improved Continental Microscope.

Silver Medal, 1892.

To R. & J. BECK.



DESCRIPTION.—The Improved Continental Microscope Stand, with rack and pinion, coarse adjustment, fine adjustment by screw; double mirror on sliding bar; complete substage with focussing and swinging adjustments; Abbé condenser and iris diaphragm; two eye-pieces; two object glasses  $\frac{2}{3}$  in. and  $\frac{1}{6}$  in. In strong case, handle, and lock.

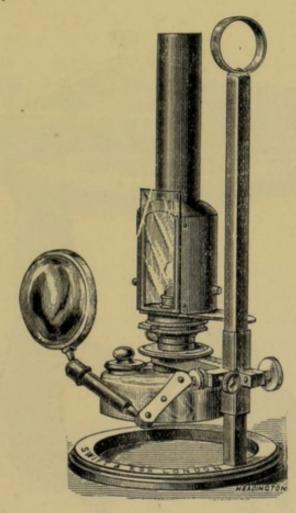
PRICE.-£8 15s.

Manufactured by R. & J. Beck, 68, Cornhill, E.C.

DIVISION A .- Section 8. Microscopy. (Continued.)

Microscope Lamp. Silver Medal, 1892.

To J. SWIFT & SON.



Description.—Designed for direct illumination without the use of the mirror, the flat container enabling it to go very low down, which moves in an arc equal to 90 in., so that either the flat side or the edge of the flame may be used. Revolving metal chimney, which takes the ordinary 3 in. × 1 in. glass slip bull's-eye condenser, can be supplied at an extra cost of 12s.

PRICE.—£2 10s. The same lamp, with ordinary glass chimney and shade, £1 3s. Polished Pine Case, 4s. extra.

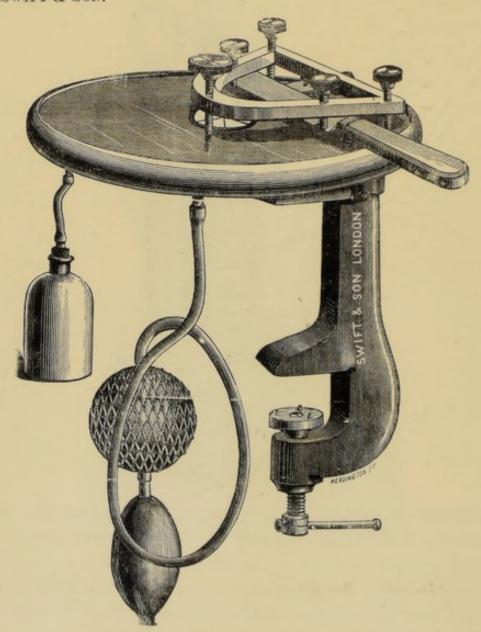
Manufactured by James Swift & Son, Tottenham Court Road, W.

DIVISION A .- Section 8. Microscopy. (Continued.

Groves' Modification of Williams' Microtome.

Bronze Medal, 1892.

To J. SWIFT & SON.



PRICES.—Groves' modification of Williams' Microtome, for use with ether spray, £3 3s. A vulcanite chamber can be supplied for freezing with ice and salt at an additional cost of £1.

Manufactured by James Swift & Son, Tottenham Court Road, W.

### DIVISION A .- Section 8. Microscopy. (Continued.)

### Thermometer for Hospital Wards.

Bronze Medal, 1898.

To W. W. ROLSTON.

DESCRIPTION.—The Ward Thermometer has a range of only 20°, viz., 50 to 70° F., with expansions at top and bottom of tube, the degrees being wide apart. It is mounted on porcelain scale with metal fittings, so that it may be immersed in a disinfecting solution without injury.

Size.—10 in.  $\times 2\frac{1}{2}$  in.

PRICE. -35s. per dozen.

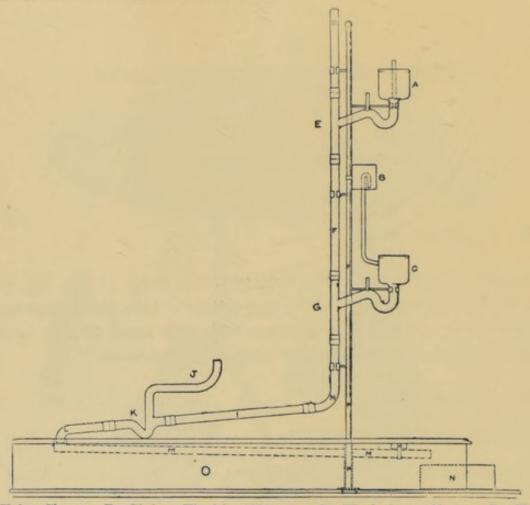
Manufactured by W. W. Rolston, 120, Pope Street, Albion Street, Birmingham.

### DIVISION A .- Section 9. Physics.

Knight's Demonstration Model Shewing Soil Pipes and Traps.

Bronze Medal, 1892.

TO PORTSMOUTH WATER FITTINGS Co.



A—Valve Closet, B—Siphon Flushing Cistern. C—Wash-down Closet, D—Ventilating Shaft, E—Branch for W.C. F—Soil Pipe, G—Branch for W.C. H—Bend or Foot of S.P. I—Drain, J—Air Shaft, K—Intercepting Trap, L—Drain to Sewer, N—Reservoir, O—Base Box, P—Brass Support.

Description.—The model is made in glass, and designed for the purpose of demonstrating the behaviour of water in drain pipes and traps under various conditions of ventilation and non-ventilation, and illustrates the unsealing of Traps by compression and Siphonic action. The model is supplied in a case, which forms a convenient base for setting up the model.

PRICE.-£3 3s.

Made by The Hygienic Referendum, 12, Ferrestone Road, Hornsey, N.

### DIVISION A .- Section 9. Physics. (Continued.)

# Apparatus for Estimating Carbon Dioxide in Air. Bronze Medal, 1894.

To REYNOLDS & BRANSON.

Description.—Consists of bottle and aspirating bellows for drawing a sample of the air to be tested into the bottle. A small quantity of test solution is then placed in the bottle and violently agitated; the amount of impurity is estimated by the time taken in the discolouration of the test solution.

PRICES.—Bottle and Bellows, 2s. 6d.; Indicator, 8d.

Manufactured by Reynolds & Branson, Ltd., 14, Commercial Street, Leeds.

Sets of Lantern Slides to Illustrate Healthy and Unhealthy Houses.

Bronze Medal, 1894.

To REYNOLDS & BRANSON.

PRICES. - 50 Coloured Slides illustrating Dangers to Health, 1s. 6d. each; 50, including box, £3 10s. 32 Slides illustrating Slipshod Sanitation, 15s. per dozen; set in box, £1 7s. 6d. 43 Slides, Is my House Healthy? 15s. per dozen; set in box, £2 7s. 6d. Knights' Series, 15s. per dozen.

Manufactured by Reynolds & Branson, Ltd., 14, Commercial Street, Leeds. DIVISION A .- Section 9. Physics. (Continued.)

Aitken's Apparatus for Ascertaining the Number of Dust Particles Present in the Atmosphere.

Bronze Medal, 1894.

To SURG.-MAJOR W. G. BLACK.

DESCRIPTION.—The instrument is designed to precipitate the dust particles in a measured quantity of air by means of the condensation of moisture upon them. The particles are precipitated on to a finely divided glass plate where the number in a given area can be counted, and from this number the amount of particles in the air under examination can be calculated.

Size.— $4\frac{1}{2}$  in.  $\times$  3 in.  $\times$   $1\frac{1}{4}$  in., in case.

PRICE .- £6 6s.

Manufactured by W. Hume, 1, Lothian Street, Edinburgh.

\*Brady & Martin's Vacuum Tube for Rontgen Rays.

Silver Medal, 1896.

TO BRADY & MARTIN.

<sup>\*</sup>See Note on Page 20.

DIVISION A .- Section 9. Physics. (Continued.)

Physical Apparatus.

Bronze Medal, 1896.

To BRADY & MARTIN.

Description.—Consisting of apparatus for demonstrating the phenomena of heat, sound, light, magnetism, electricity, &c.

Sizes .- Various.

PRICES .- On application.

Manufactured by Brady & Martin, Northumberland Road, Newcastle-upon-Tyne.

Apparatus for Analysis of Air, Water, Food, &c.
Silver Medal, 1897.

To REYNOLDS & BRANSON.

Various.

Particulars on application.

Manufactured by Reynolds & Branson, Limited, 14, Commercial Street, Leeds.

# DIVISION B.—HYGIENE OF SPECIAL CLASSES, TRADES AND PROFESSIONS.

DIVISION B .- Section 2. Various Trades and Manufactures.

Exhibit of Models of Railway Rolling Stock and Appliances,
Silver Medal, 1890.

To London, Brighton, and South Coast Railway, London.

Specimens of Photography.

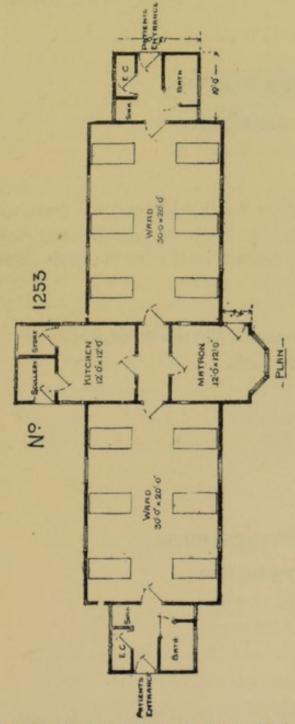
Bronze Medal, 1890.

To Burt Sharp, 79, West Street, Brighton.

#### DIVISION B .- Section 3. Hospitals.

#### Iron Temporary Hospital Hut. Bronze Medal, 1892.

To HUMPHREYS, LIMITED.



DESCRIPTION.—The hospital is made of timber framing, covered with galvanized corrugated iron, and is lined inside with felt and match-board stained and varnished, and is built on the onestoreyed pavilion plan, having the administrative block in the middle and a ward on each side. The further end of each ward opens into a lobby, beyond which are placed the w.c. and bath room. The wards are warmed by an open stove. About half-way up the roof on each side and at a distance of 10 ft. apart Dormer ventilators are inserted, which are provided with perforated zinc plates and "hit and miss" shutters. Inlet air tubes are provided. and gable ventilators are also fixed in such a manner as to allow the whole of the opening to be used as an air space. Ventilation at the ridge is also provided for. The laundry and mortuary are cottages standing apart from the main building.

PRICE.—Including Matron's Room, Kitchen, and Offices, 4 beds, £245; 8 beds, £330; 12 beds, £374; 16 beds, £443; 20 beds, £507; 24 beds, £568.

Manufactured by Humphreys, Limited, Iron Building Works, Knightsbridge, Hyde Park, London, S.W.

Telephone No. 8881.

Telegrams, "Humphreys," Knightsbridge."

#### DIVISION B .- Section 5. Barracks and Camps.

#### Self-Adjusting Tent Pole.

Bronze Medal, 1892.

To J. CHADWICK.

DESCRIPTION.—The upper part of the Pole is telescoped and bears upon a strong spring, so that the Pole yields by shortening when any exceptional strain is put on the rope, and recovers itself when the strain ceases.

PRICES.-From 15s. to £2 10s.

Manufactured by John Chadwick, 32, Victoria Street, Landport, Portsmouth.

A Square Tent for Garden.

Bronze Medal, 1892.

To C. GROOM & Co.

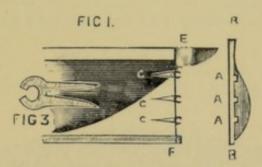
Size.—10 ft. × 10 ft. Price.—£9 10s. each.

Manufactured by Charles Groom & Co., Broad Street, Portsmouth.

#### DIVISION B .- Section 6. Ships.

Rudder Fastenings. Bronze Medal, 1894.

To JAMES B. CULLEN.



DESCRIPTION.—The object of this arrangement is to allow the rudder to be removed and replaced while the ship is at sea. The clips shown in Fig. 3 are attached to the sternpost of the ship. The rudder can be raised or lowered by sliding through the openings in the clip. When in position the ends of the clips pass through suitable openings in the rudder so as to allow freedom of movement for steering.

Sizes.—From a small boat to a large line of battle ship.

PRICES.—For a small boat from £1, a large ship from £100.

IN PARTS.—When required.

Manufactured by LAIRD, Birkenhead; ROYDEN, Liverpool; and the Patentee, James B. Cullen, 104, Old Hall Street, Liverpool.

DIVISION B .- Section 9. Municipalities.

Abattoir Fittings. Bronze Medal, 1899.

To Lockerbie & Wilkinson, Ltd.

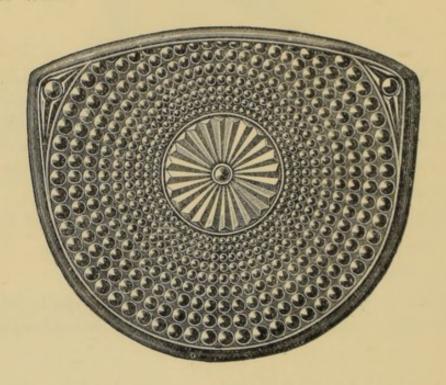
Description.—Overhead carrying gear consisting of flat rails fitted with automatic lever switches, running pulley hooks and chains, self-sustaining beast hoists with flexible steel wire rope and new pattern cammeral.

PRICES.—On application.

Manufactured by Lockerbie & Wilkinson, Ltd., Station Street, Birmingham. Works: Tipton, Staffs. DIVISION B .- Section 11. Prevention of Accidents.

# India-Rubber Pad for Carriage Steps. Bronze Medal, 1889.

TO HENRY WALL.



DESCRIPTION.—The Cover is moulded in one piece, and fits on the top of the Step and round the edge, with a lip or flange to secure it. The surface is moulded in the form of small cones, thus affording a secure tread. The Cover is easily adjusted, and may be removed at pleasure.

Sizes.—From 5 in. diameter.

PRICES .- From 5s. 6d.

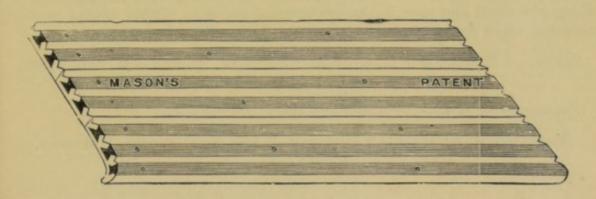
Manufactured by The Birmingham India-Rubber Co., 124, New Street, Birmingham.

#### DIVISION B .- Section 11. Prevention of Accidents. (Continued.)

#### Mason's Non-slipping Treads and Surfaces.

Bronze Medal, 1894.

To SAFETY TREAD SYNDICATE.



DESCRIPTION.—These Treads consist of a steel plate having dovetailed grooves and open grooves alternately, the former being filled with lead or any non-slipping substance.

Manhole covers, Electric light box covers, Coal plates, Stirrups, &c., made on the same principle.

PRICES.—Stair treads, Nosing, 3½ inches wide, 1s. 6d. per foot; filling strips, 2 in., 10d. per foot.; 4 in., 1s. 8d. per foot run. Covers according to size.

Manufactured by The Safety Tread Syndicate, Limited, 15, Barbican, London, E.C.

#### DIVISION B .- Section 11. Prevention of Accidents. (Continued.)

## Interchangeable Rubber Stair Treads. Bronze Medal, 1897.

To W. GOODING.



Description.—These Treads consist of a metallic keeper (iron, brass, gun metal, aluminium, &c.), pierced with a number of square-shaped holes, through which blocks of india-rubber are placed; the rubber projects above the metal and thus forms the wearing surface. These blocks can be renewed when worn.

Sizes.—1 ft.  $6 \times 6$  in.; 2 ft.  $\times 6$  in.; 2 ft. 3 in.  $\times 6$  in.; 2 ft. 6 in.  $\times 6$  in.; 2 ft. 10 in.  $\times 6$  in.; 3 ft.  $\times 6$  in.

PRICES.—Iron, 4s. 6d.; 5s.; 5s. 3d.; 5s. 6d.; 5s. 9d.; 6s.

Manufactured by WILLIAM GOODING, North Road Works, Holloway, London, N.

### Arrangement for Releasing Horses from Vehicles in cases of Accident.

Bronze Medal, 1889.

To McNaught & Co.

Description.—The end of the Carriage-Pole is fitted with two flat Iron Plates, the upper one of which is a fixture, having two Studs upon it pointing downwards, to which the Pole-Chains or Straps are attached; the Under Plate is made to Revolve so that either horse can be set free, as by turning back this Revolving Plate the Pole-Chains or Straps drop off of their own accord. The Plate is kept in its place by means of a small Clamp which grips the Pole on either side of both the Upper and Lower Plates. The Roller Bolt has an invertible head, which, somewhat in the form of a Greek cross when open, can, by a touch of the hand, be inverted, allowing the trace to be instantly slipped off.

PRICES.—For Double Harness, per set complete, including fixing, £3 3s.; for Dog Carts, per set complete, including fixing, £1 1s.

Manufactured by McNaught & Co., Worcester, & 10, Park Lane, London, W. DIVISION B .- Section 12. Prevention of Fires.

Exhibit of Fire Extinguishing Appliances. Silver Medal, 1890.

To BRIGHTON VOLUNTEER FIRE BRIGADE.

#### Hand Chemical Fire Extincteur.

Bronze Medal, 1890.

To THE HASLAM FIRE EXTINGUISHER Co.

Description.—It is made in a Conical form to allow of a large base for it to stand upon; the Cover is an outside Shell which revolves round the top of the Nozzle, and Locks the same on the Fastenings. The India Rubber Joint Ring is so made that the pressure in the Extincteur forces it against the side of the Nozzle and makes its own joint. The Acid Bottle inside is broken by a Screw-Plunger, the latter being operated by a Handle on the outside; the Discharge-Pipe is carried from the bottom of the Extincteur.

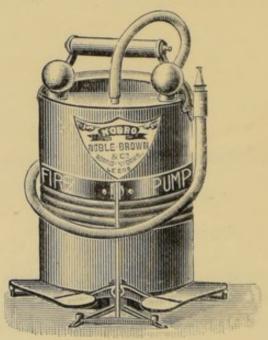
PRICES — From 7s. 6d. to £2; recharges 2s. each.

Manufactured by The Haslam Fire Extincteur Co., Tonge Road, Bolton.

DIVISION B .- Section 12. Prevention of Fires. (Continued.)

## Nobro Portable Fire Pump. Bronze Medal, 1897.

To Noble, Brown & Co.



Description.—A horizontal double acting Pump fixed inside an ornamental pail holding about five gallons of water; the pump is operated by a pair of pedals fixed at the sides of the pail; upon these the operator stands and so utilizes the whole weight of his body, leaving both hands free to direct the stream of water, which can be sent a distance of 40 to 50 feet.

PRICE.-£4 4s.

Manufactured by Noble, Brown & Co., Limited, Nobro Works, Leeds.

DIVISION B .- Section 12. Prevention of Fires. (Continued.)

Water Curtain for Public Places of Entertainment.

Bronze Medal, 1892.

To Portsmouth Water Fittings Co., Portsmouth.

\* Bell's Fireproof Door.

Bronze Medal, 1894.

To A. G. BELL.

<sup>\*</sup> See Note on Page 20.

## DIVISION C.—CONSTRUCTION AND SANITARY APPARATUS.

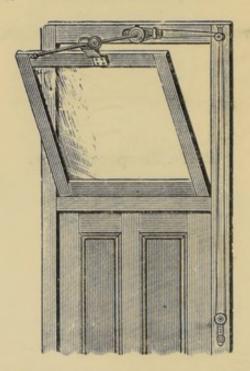
CLASS I.—BUILDING MATERIALS, CONSTRUCTION AND MACHINERY.

DIVISION C.-CLASS I.-Section 1. Materials and Construction.

"Grahtryx" Secure Fanlight Opener.

Silver Medal, 1889.

To J. WARD & SONS.



Description.—An Endless Cord passing over a Grooved Pulley, and worked by hand, causes the Screw to revolve, thereby opening the Fanlight to the required distance, and locking it at any Angle.

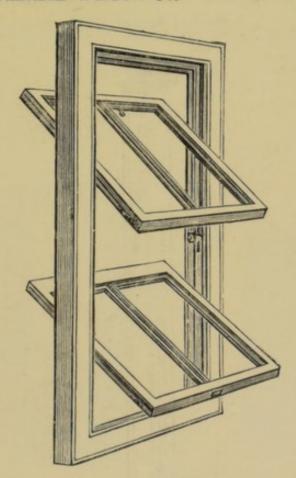
Sizes.—Opening from  $\frac{1}{2}$  in. to 20 in.

PRICES.-From 7s. 6d.

Manufactured by Baird, Thompson, & Co., Ventilating Engineers, London and Glasgow.

## Millar's Reversible Windows. Bronze Medal, 1889.

To MILLAR'S REVERSIBLE WINDOW Co.



Description.—The outside of each Sash can be reversed into the room and cleaned from the inside, thus avoiding risk of accident. Being self-balanced, they can be opened for the purposes of ventilation, and they can be taken off the stiles altogether and replaced without taking off any of the beads or disturbing the woodwork about the frame. Existing windows can be adapted to this principle.

PRICES.—According to description of Sash, from 15s. per Window opening extra over ordinary double hung sashes.

IN PARTS.—Hinged Stiles, 6s. 3d. per Pair; Teak ditto, 8s. 4½d.; or Brass Joints, 3s. 9d. per Pair.

Manufactured by Thomas Boyce, 8, Hart Street, Bloomsbury.

\* Model of Window with removable Sashes to facilitate Cleaning.

Bronze Medal, 1892.

To A. CARTER.

Reversible Window and Fanlight.

Bronze Medal, 1897.

To R. MASON.



Description.—These windows are made to turn on pivots which are so constructed that the sash may be placed in any position for ventilating purposes or reversed for cleaning.

Size.—Made in any size or design.

PRICES.—Quotations sent on receipt of sizes and particulars.

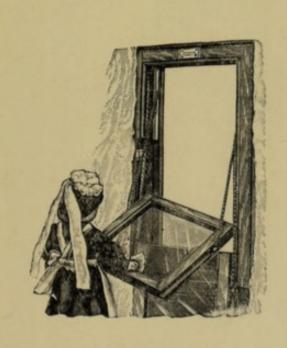
IN PARTS.—Fittings 6s. 6d., 10s. 6d., 12s. 6d. and 15s. per sett.

Manufactured by RICHARD MASON, Window Works, Hemsworth, near Wakefield.

\* See Note on Page 20.

# Reversible Window with Lines and Weights. Bronze Medal, 1898.

TO JAMES JONES.





DESCRIPTION.—Part of one inside bead is hinged, to allow the bottom sash to be taken out of frame. Part of one parting bead is of brass or iron, attached to the pulley style with slot plates. The cords are attached to lower part of sash styles and act as centres to reverse the sashes.

PRICES.—Fittings in brass or iron, 4s. per set.

Manufactured by James Jones, 317, Albert Road, Aston, Birmingham.

The "E.R.A." Reversible Window Fittings.

Bronze Medal, 1899.

TO ROBERT ADAMS.

Description.—Patent Reversible and Safety Window Fittings for sliding double hung sashes for the prevention of accidents in window cleaning. Easily fitted to new or existing windows without disfigurement.

PRICES.—
Mode 541.—Fittings with
thumbscrew-propelled
Tongues, Pivots, etc.,
from 2s. per set per sash.

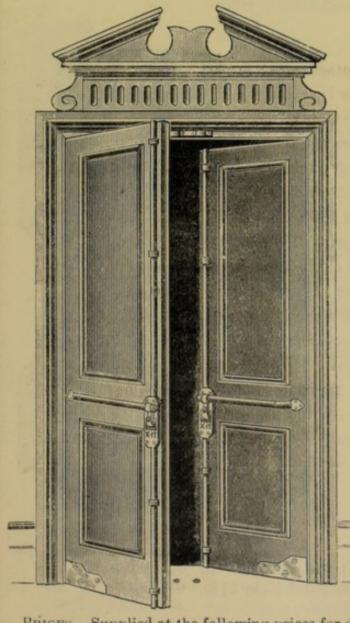


Manufactured by Robert Adams, 65 & 67, Newington Causeway, London, S.E.

#### "X-I-T" Bolts.

Bronze Medal, 1899.

TO ROBERT ADAMS.



DESCRIPTION.—They are safe from without, yet so free in their action that the doors may be easily thrown open by those within desiring to walk out quietly, or by a panic - stricken crowd precipitated violently against the rail across the doors, when they fly wide open. They can be applied at a small cost above that for common fastenings to any door, and can be made to lock on the outside by turning the outside handle. but they can never be so locked as to prevent them being opened by pressure on the bar inside.

PRICES.—Supplied at the following prices for doors up to 7ft. 6in, in height:-

	Door.		t vertical		Dogra.
All brass	45/-		25/-		60/-
Brass mounts and iron rods	42/-	***	22/6		55/-
All iron	35/-		20/-		45/-
	With Key extra.				

These prices are for 3-in. bars.

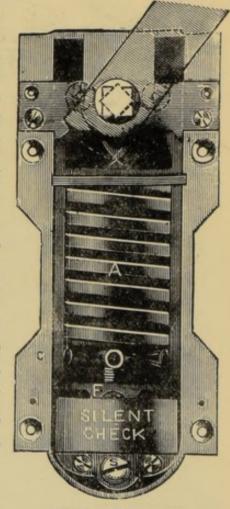
Manufactured by Robert Adams, 65 & 67, Newington Causeway, London, S.E.

#### The "Crown Victor" and "London Victor" Oil Check Spring Hinges.

Bronze Medal, 1899.

TO ROBERT ADAMS.

Description.—Special advantages. (1) A much wider opening of the door than hitherto possible, the double-action "Crown" pattern opening to and closing from the angle of 135°, i.e., 45° beyond the right angles, and the single-action "London" pattern opening to and closing from the angle of 189°, i.e., the half circle; (2) large internal spring; (3) new arrangement for regulating the closing power of the spring (A) by turning the capstan (C); (4) compact box, regular in form and free from projections, suitable for wood or stone, or shallow floors or narrow sills; (5) the door is held at the closed position, but yields pleasantly in opening; (6) the safety valve provided to prevent injury by undue violent use; (7) no outer box for fixing into stone, etc., is necessary.



PRICES.— Quality F.

Double Action. Single Action
For Doors not over 6 ft. by 1 ft. 9 in. by  $1\frac{1}{2}$  in. ... 23/- to 33/- ... 28/
", ", 7 ft. 6 in. by 2 ft. 6 in. by  $2\frac{1}{4}$  in. 34/- to 44/- ... 40/For extra large or heavy doors ... ... 46/- to 66/- ... 54/
Special non-freezing and non-corrosive Oil and Cans extra.

These prices include the Adjustable Shoe and Adjustable Top Centre. Steel Faced.

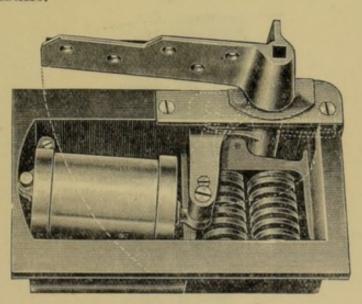
Brass, Steel-washered or Lift-off Butts for Top Centres, 2/- each extra. Gun-metal Top Centres, 4/- each (for Single Action Hinges.)

Manufactured by ROBERT ADAMS, 65 & 67, Newington Causeway, London, S.E.

The "City" and "Cushion Victor" Pneumatic Silent Check Spring Hinges.

Bronze Medal, 1899.

TO ROBERT ADAMS.



DESCRIPTION .- The "City" single action spring hinge.

PRICES.—Complete with new Adjustable Shoe and Top Centre—

#### Double Action.

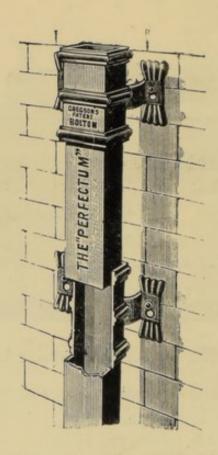
For Doors not over 6 it. by 1 it. 9 in. by 14 in	***	33/-
" ,, ,, 7 ft. 6 in. by 2 ft. 6 in. by 2 in.	***	44/-
For extra large or heavy doors		66/-
Single Action Pneumatic Spring Hinge, left h	and.	
For Doors not over 6 ft. by 1 ft. 9 in. by 1½ in		28/-
" " , 7 ft. 6 in. by 2 ft. 6 in. by 2½ in.		40/-
For extra large or heavy doors		54/-
Steel-faced Washer Butts for Top Centres, 2/- each	extra	

Manufactured by Robert Adams, 65 & 67, Newington Causeway, London, S.E.

Removable Rain-Water Pipes, Heads, Clips, and Hangers.

Bronze Medal, 1889.

To JAMES GREGSON.



Description.—These Pipes have Ears with Slotted Nail-holes, so that they can be lifted from the wall, and are made with long Sockets so that the Ears can be adjusted to the joints in the brickwork. The projecting Ears set the Pipe out from the wall so as to allow of painting the back of the Pipes, and to prevent escaping water running down the wall.

Sizes.—3  $\times$   $2\frac{1}{2}$  in.,  $3\frac{1}{2}$   $\times$   $2\frac{1}{2}$  in., 4  $\times$  3 in.

PRICES.—3s., 3s. 3d., 3s. 9d. per yard.

Manufactured and Sold by The Yew Tree Iron Works Co., L:MITED, Hollinwood, Oldham.

#### Wire Wove Roofing.

Bronze Medals, 1889 and 1890.

To NEW WIRE WOVE ROOFING Co.

DESCRIPTION.—It consists of a fine net-work of woven wire, coated with a translucent waterproof compound. It is of various tints, and although only one-third the weight of ordinary glass will bear more weight.

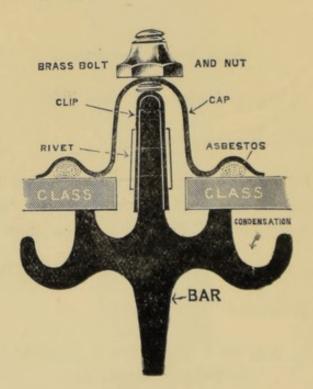
Sizes.-In sheets 2 ft. and 4 ft. wide, and 5 ft. and 10 ft. in length.

PRICES.—61d. per square ft.

Manufactured by The New Wire Wove Roofing Co., Limited, 19, Newgate Street, E.C.

# The Helliwell System of Glazing. Bronze Medal, 1898.

To FARRER, BARBER & Co.



Sizes .- According to span.

PRICES.—On application.

Manufactured by Helliwell & Co., 36, Cannon St., Birmingham.

Zinc Roofing.

Bronze Medal, 1898.

To PLANT & Co.

DESCRIPTION.—Consists of a double folded clip, securing the roll caps over the joints of zinc or other metal roofing sheets. Where these are turned up against the sides of rolls dividing the sheets, the clips fix the roll caps without the use of holder or external screws or nails. The clip allows for expansion or contraction of the roll caps, and at the same time makes a sound water-tight joint, and being a double clip there is no chance of suction.

PRICES.—Complete on application.

Manufactured by Plant & Co., 66, Dale End, Birmingham.

Robinson's Cement for Plastering.

Bronze Medal, 1889.

To J. Robinson & Co.

Manufactured by J. Robinson & Co., Knothill, near Carlisle.

#### Callender Pure Bitumen for Linings.

Bronze Medal, 1898.

TO CALLENDER & MONTGOMERY.

#### Callender's Pure Bitumen for Linings.

Bronze Medal, 1899.

To Hooper & Ashby.

DESCRIPTION.—Callender's Pure Bitumen Sheeting is made of Trinidad Refined Bitumen from the Island of Trinidad, West Indies. It is a natural mineral.

Sizes.—24 ft. lengths, width up to 72 in.

PRICES.-2s. 6d. to 3s. per sq. yard laid by own men.

Manufactured by G. M. Callender & Co., 25, South Block, Victoria Street, London, S.W.

#### Willesden Paper.

Bronze Medal, 1898.

To C. A. LINE.

Description.—Willesden Waterproof and Rotproof Papers for roofing (without boards), underlining slates, tiles, and iron buildings; lining damp walls, &c.

Sizes .- In rolls of almost any length up to 60 in. wide.

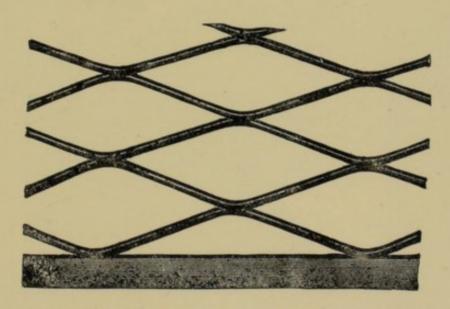
PRICES.—From 13d. to 2s. 6d. per yard.

Manufactured by WILLESDEN PAPER & CANVAS WORKS, LTD., Willesden.

Expanded Metal.

Silver Medals, 1896, 1897.

TO EXPANDED METAL CO.



Description.—"Expanded Metal" consists of mechanically slit or cut and deployed or opened out sheets of metal, so as to produce trellis or net-like work, having diamond shaped meshes and strands of any desired sizes and thicknesses. Used in fireproof flooring; ceiling combined; fireproof partition walls; and for fencing; and various articles for horticultural and general use. Made in steel, brass, copper, aluminium, &c.

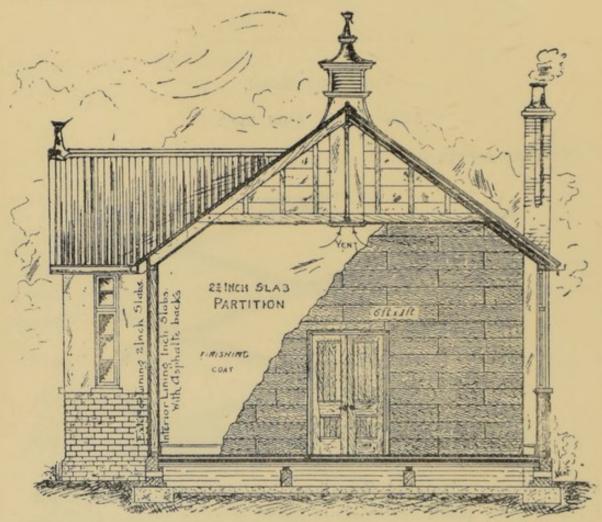
Sizes.—Manufactured in sheets up to 8 ft. square,  $\frac{3}{8}$  in. to 6 in. mesh.

Manufactured by The New Expanded Metal Co., Limited, 39, Upper Thames Street, London, E.C.

The "Mack" Fireproof Plaster Slabs.

Bronze Medal, 1899.

To J. A. KING & Co.



Description.—The slabs are composed principally of plaster having reeds embedded, thereby forming sealed air chambers for insulating against both high and low temperatures, also sound; and further gives strength with additional lightness, and as the slabs contain no metal work they may be sawn and nailed like wood. Isolation hospitals may be erected entirely with these slabs.

Sizes.—Slabs  $\frac{3}{4}$  in., 1 in.,  $1\frac{1}{4}$  in. thick for ceilings, stud partitions, insulation of roofs, lining corrugated iron buildings and damp walls, &c. Slabs 2 in.,  $2\frac{3}{4}$  in., and 4 in. (hollow) thick for forming solid partitions any length, floors pugging, insulation of refrigerators and roofs.

PRICES.—1s. 2d. to 4s. per yard super.

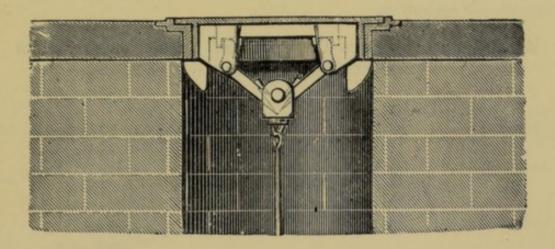
A  $2\frac{3}{4}$  in. slab partition has been tested by the British Fire Prevention Committee to a temperature of over  $2,200^{\circ}$  Fahr. for a period of  $1\frac{1}{4}$  hours, followed by the application of water from a fire hose; partition was found intact after test.

Manufactured by J. A. King & Co., 181, Queen Victoria Street, London, E.C.

#### Self-Locking Coal Plate.

Silver Medal, 1890.

TO HAYWARD BROTHERS & ECKSTEIN.



Description.—It consists of a frame fixed in the pavement, into which the Plate is dropped and secured or locked by projecting bolts on each side, actuated by an arrangement of two small levers with a weight in the centre. The Coal Plate can be pushed out with a stick, or a rod connected to the centre weight.

Sizes.—Outside diameter, 12 in. to 18 in.

PRICE. -6s. to £1 5s.

Manufactured by HAYWARD BROTHERS & ECKSTEIN, 187, 189, 191, & 193, Union Street, Borough, London, S.E.

Terra Cotta Door and Window Jambs.

Bronze Medal, 1892.

To S. S. WAY, Portsmouth.

#### White and Coloured Glazed Bricks.

Bronze Medal, 1894.

To Joseph Cliff & Sons.

PRICES .- On application.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

#### White and Coloured Glazed Bricks.

Bronze Medal, 1897.

TO THE LEEDS FIRECLAY CO., LTD.

PRICES.—On application.

Manufactured by the following branches of the above Company:—Joseph Cliff & Sons; Burmantoft's Co.; E. Brooke & Sons; W. Ingham & Sons: Wortley Fire Clay Co.; Joseph Brooke & Sons.

#### White and Coloured Glazed Bricks.

Bronze Medal, 1897.

To FARNLEY IRON Co.

Sizes.—9 in.  $\times$   $4\frac{1}{2}$  in.  $\times$   $2\frac{7}{8}$  in. in stretchers. Headers, quoins, &c., also moulded in variety.

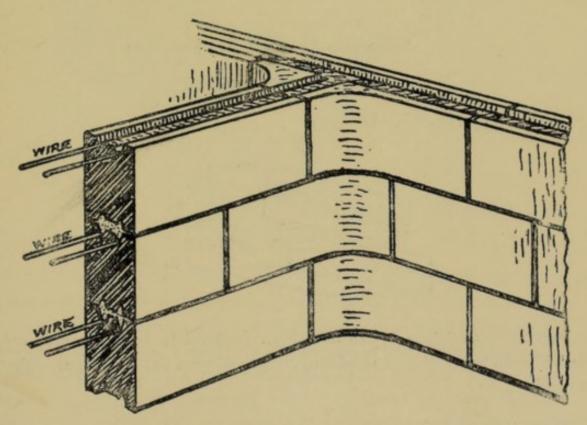
PRICES .- On application.

Manufactured by FARNLEY IRON COMPANY, LIMITED, Farnley, Leeds.

#### Tiltman's Division Bricks.

Bronze Medal, 1897.

To LEEDS FIRECLAY Co., LTD.



DESCRIPTION.—Thin bricks glazed on one or both sides with channel for holding thin metal rod to give stability.

Sizes.— $9 \times 2\frac{1}{4} \times 2\frac{7}{8}$ .

PRICES.—Glazed white 1 side, £12 per 1,000, at Works.

2 sides, £18 ,, ,,

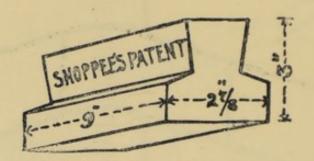
Prices of Angles on application.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

Shoppee's Dovetail Bricks.

Bronze Medal, 1897 and 1899.

LEEDS FIRECLAY Co., LTD.,



Description.—These bricks have been designed to supersede ordinary glazed bricks for vaulting and arching, where either a flat or circular soffite is required.

Sizes.— $9 \times 3 \times 2\frac{7}{8}$ .

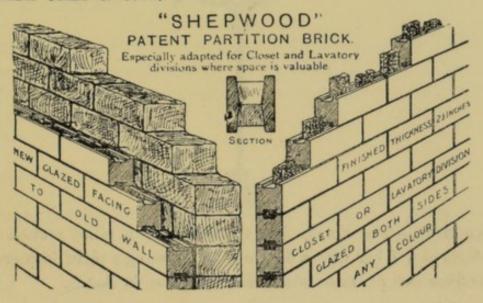
PRICES.—White glazed on  $9 \times 2\frac{1}{8}$  face, £11 per 1,000 at Works.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

#### Shepwood Partition Bricks.

Bronze Medal, 1899.

To Joseph Cliff & Sons.



Description.—These Facings and Partitions are formed with bricks having hollow spaces passing vertically through them, so that when placed over each other with bonded joints the spaces are continuous; and they also have continuous frogs on both beds. These spaces and continuous frogs are grouted with concrete as the bricks are built in position, thus forming a web or network of concrete in which the bricks are held fast. A partition  $2\frac{1}{2}$  inches thick, constructed in this manner, is as rigid as an ordinary 9-inch wall, and will support itself across a wide span, and may be used in place of fire-spreading lath-and-plaster partitions, and is especially adapted for closet and lavatory divisions where space is valuable.

Sizes.—9" $\times 2\frac{7}{8}$ " $\times 2\frac{1}{2}$ " thick.

PRICES.—On application. Glazed two sides.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds, and Baltic Wharf, Waterloo Bridge, London, S.E.

Flange Bar for Girders. Bronze Medal, 1896.

To THE LEEDS STEEL WORKS.



DESCRIPTION.—The Flange Bar for girders is a rolled section of steel in the form of a T bar with a double stalk, forming a plain deep groove to receive either web plates or lattice bars, as shown in sketch.

Sizes.-Flanges 7 in. and 10 in. wide.

PRICES .- On application.

Manufactured by Walter Scott, Ltd., Leeds Steel Works, Leeds.

Enamelled Cast Iron.

Bronze Medals, 1896 and 1897.

Silver Medal, 1898.

To CANNON HOLLOW WARE Co.

DESCRIPTION.—This ware is known to the trade by the registered trade mark "Porceliron." It has a highly glazed surface of white porcelain, incorporated with the iron by a special process. The following are the principal cast-iron articles produced in this ware: baths, lavatories, plug bowls, sinks, urinals, water closets, and siphon traps.

PRICES,-On application.

Manufactured by Cannon Iron Foundries, Limited, Deepfields, near Bilston, Staff.

#### Wrought Iron and Steel Tubes.

Bronze Medal, 1897.

To J. Russell & Co., Limited.

Description.—General assortment of light iron and steel Tubes, with specimens of bends, twists, Staffordshire knots, coils and bends, iron pipe twisted in many forms, for hydraulic, steam, gas, and water purposes.

Sizes .- 1 in. up to 6 in.

PRICES .- On application.

Manufactured by John Russell & Co., Limited, 15, Wellington Street, Leeds.

#### Architectural Terra-Cotta.

Bronze Medal, 1899.

To Joseph Cliff & Sons.

DESCRIPTION.—The Grey Terra-Cotta is very hard, almost vitreous. It is particularly suited to resist the smoky atmosphere of London and other large towns. On account of its quiet colour it is suitable for churches, but can be used on any class of building with good effect.

Sizes.—Usual.

PRICES.—On application.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds, and Baltic Wharf, Waterloo Bridge, London, S.E.

Excel Silver.

Bronze Medal, 1899.

TO WEBB'S ENGINEERING CO.

DESCRIPTION.—Excel Silver is a compound white metal; is suitable for all kinds of water fittings, sanitary appliances, etc., has a silver-white appearance, will not easily tarnish or oxidise.

PRICES .- On application.

Manufactured by Webb's Lamp Co., Limited, 11, Poultry, London, E.C.

DIVISION C .- CLASS I .- Section 3. Paints and other Protectives.

#### Antioxide.

Bronze Medal, 1889.

To Peters, Bartsch & Co.

Description.—For making into paint to be used for preventing Rust on Iron, Steel, and other Metals; as a paint for protecting Wood; and for preserving Placards exposed to the weather.

PRICES.-7s. 6d. per Tin of & Gallon.

Manufactured by Peters, Bartsch & Co., Derby.

### DIVISION C.—CLASS I.—Section 3. Paints and other Protectives. (Continued.)

#### Carbolineum Avenarius.

Bronze Medal, 1889.

To PETERS, BARTSCH & Co.

Use.—For preserving Wood and Ropes, and preventing dampness in Walls.

SIZE AND PRICE.—4s. 3d. per 1 Gallon Tin; 40-Gallon Casks, 2s. 8d. per Gallon.

Manufactured by Peters, Bartsch & Co., Derby.

#### Aspinall's Enamel and Lacquers.

Bronze Medal, 1890.

To Aspinall, Aspinall & Co.

Description.—Enamel made in various Colours for painting and protecting Ironwork, Woodwork, &c., and for Decorative purposes.

PRICES.—2d., 5d., 1s. 3d., and 2s. 6d. per Tin; and £1 per Gallon.

Manufactured by Aspinall's Enamel Co., Limited, New Cross, S.E.

#### Hall's Washable Distemper.

Bronze Medal, 1898.

To Sissons Bros. & Co., Ltd.

Sizes.—7 to 112 lb. tins or casks.

PRICES.—Special terms to the trade.

Manufactured by Sissons Bros. & Co., Ltd., Hull.

## DIVISION C.—CLASS I.—Section 3. Paints and other Protectives. (Continued.)

Duresco.

Bronze Medal, 1898.

To THE SILICATE PAINT Co. (J. B. ORR & Co.)

Description.—A washable water paint, damp proof, for treating stone, brick, cement, or wood, either for outside or inside use.

PRICES.—On application.

Manufactured by The SILICATE PAINT Co. (J. B. ORR & Co.), Charlton, S.E.

DIVISION C.-CLASS I.-Section 4. Wall Paper and Coverings.

\*Excellence of Design and Colour in Wall Papers and Silk Hangings.

Silver Medal, 1890.

To D'OYLY & Co.

"Sanitum" Washable Wall Paper.

Silver Medal, 1894.

To Walker & Carver, Limited.

Description.—A washable and sanitary paperhanging, which may be washed down with disinfectants without the colourings or the paper being injured.

Sizes.—In pieces of 12 yard lengths; 9 yard lengths for borders and friezes.

Manufactured by Walker & Carver, "Sanitum" Wall Paper Works, Pendleton.

\* See Note on Page 20.

DIVISION C .- CLASS I .- Section 4. Wall Paper and Coverings. (Contd.)

#### Cordelova Wall Covering.

Bronze Medals, 1896 and 1897.

To CORDELOVA Co.

Description.—Mounted Panels in low and high relief for walls and ceilings, including dados in imitation oak friezes, and ceilings in plaster effect. These decorations are painted in oil paint and varnished, and are washable.

Sizes .- In all sizes.

PRICES.-From 9d. per lineal yard of 24 inches wide.

Manufactured by The Cordelova Co., Limited, 74, Pitt Street, Edinburgh.

#### Opalite.

Bronze Medal, 1896.

To North Eastern Glazed Brick & Tile Co., Ltd.

Manufactured under Patents held by The North-Eastern Opalite Glazed Brick & Tile Co., Limited, Newcastle-upon-Tyne.

Adamant Plaster for Walls and Ceilings and Fireproof Flooring.

Bronze Medal, 1898.

TO THE ADAMANT CO.

PRICES.—At Works, Birmingham: No. 2 wall floating, 2s. 3d. per bag; No. 2x lath, 2s. 3d. per bag; No. 1 setting, 3s. per bag; No. 1X rough stucco, 3s. per bag; No. 1XX cornice backing, 2s. 9d. per bag; No. 2A cornice fronting, 5s. per bag; Chromolith, 6s. per bag.

Manufactured by The Adamant Co., Ltd., Commercial St., Birmingham.

#### DIVISION C .- CLASS I .- Section 5. Flooring.

# Solid Wood-Block Floor Paving. Bronze Medal, 1889.

To HOLLOWAY BROS.

DESCRIPTION.—This Paving is laid in Blocks, each Block having two of its sides splayed or tapered one way, and the two other sides the reverse way, so that they may be interlocked without the aid of ties or fastenings.

Sizes of Blocks.— $1\frac{1}{2}$  in. to 4 in. in thickness, and from 12 in. to 18 in. square, superficial.

PRICE.  $-1\frac{1}{2}$  in. thick, 6s. 6d. per yd. super.

Manufactured by Holloway Bros., Victoria Wharf, Belvedere Road, Westminster Bridge, London, S.W.

#### Inlaid Linoleum.

Bronze Medal, 1899.

To G. A. PERMAIN & Co., Southampton.

DESCRIPTION.—Each colour forming the pattern is a separate section of material, so that the pattern does not lose any of its design until the linoleum is completely worn off the canvas back.

Size.—6 ft. wide.

PRICES.—3s., 3s. 6d., and 4s. per square yard.

Manufactured by Greenwich Inlaid Linoleum Co., Newgate Street, London, E.C. DIVISION C .- CLASS I .- Section 5. Flooring. (Continued.)

## The "Non-slip" Artificial Stone. Bronze Medal, 1899.

To THE HARD YORK PATENT STONE Co.

DESCRIPTION.—The "Non-slip" Hard York Stone is a stone manufactured from the chippings of "Silex" stone. The chief features of the "Non-slip" stone are: Being a hard York stone it is non-slippery; it is made by hydraulic pressure of over 1000 tons and has no air cavities; in texture, foothold, and colour it is identical with natural York stone; has no cement face; is as workable as natural stone; it has no laminations, and is impervious to frost and climatic changes; it is less costly than natural stone.

Sizes.—3 ft.  $\times$  2 ft.; 2 ft. 6 in.  $\times$  2 ft.; 2 ft.  $\times$  2 ft.; and intermediate sizes.

PRICES .- On application.

Manufactured by The Hard York Nonslip Stone Company, Halifax.

DIVISION C .- CLASS I .- Section 6. Decorative Materials.

Wood Moulding.

Bronze Medal, 1890.

To Beves & Co.

DESCRIPTION.—Wood Mouldings wrought both in hard and soft woods.

Manufactured by Beves & Co., Church Street, Brighton.

#### Exhibit of Art Porcelain.

Silver Medal, 1889.

To THE WORCESTER ROYAL PORCELAIN CO.

Manufactured by The Worcester Royal Porcelain Co.

DIVISION C .- CLASS I .- Section 6. Decorative Materials. (Continued.)

Exhibit of Flooring and Wall Tiles. Silver Medal, 1889.

To Webb's Worcester Tileries Co.

Manufactured by Webb's Worcester Tileries Co., Worcester.

\* Enamelled Iron Plates for Decorative Purposes.

Bronze Medal, 1890.

TO HERMANN HEIM.

\* Decorative Tiles and Pottery.

Bronze Medal, 1890.

To H. CRESSWELL.

\* Enamelled and Decorated Fire Clay Tiles.

Bronze Medal, 1896.

To John Carr & Sons.

Exhibit of Decorative Pottery and Faience. Silver Medal, 1890.

To BURMANTOFT'S WORKS.

Manufactured at BURMANTOFT'S WORKS, LEEDS FIRECLAY CO., LIMITED.

\* Good Design and Colour in Upholstery Silks.

Bronze Medal, 1890.

To F. OLIVER & Co.

<sup>\*</sup> See Note on Page 20.

DIVISION C .- CLASS I .- Section 6. Decorative Materials. (Continued.)

## Artistic Pottery and Porcelain.

Bronze Medal, 1890.

To J. Haines, 70, Church Road, Brighton.

### Fancy Wood Decorations.

Bronze Medal, 1890.

To J. F. & G. HARRIS.

DESCRIPTION.—Adapted for Ceilings, Walls, Dados, &c. They can be fixed either straight or on a curve, being constructed for secret nailing.

Size.-Made from 1/2 in. to any thickness and in various woods.

Made by J. F. & G. HARRIS, 58 & 60, Wilson Street, Finsbury, E.C.

#### Wall Decorations in Burmantoft's Faience.

Silver Medal, 1897.

To THE LEEDS FIRECLAY Co., LTD.

Description.—A decoration for either interiors or exteriors of buildings in tiles or faience (constructional or applied), in any colour or colours.

PRICE. -According to design.

Manufactured by The Leeds Fireclay Co., Limited, Burmantoft's Works, Leeds.

#### Vitreous Glazed Terra Cotta.

Bronze Medal, 1897.

To THE LEEDS FIRECLAY CO., LTD.

DESCRIPTION.—A Terra Cotta with a vitrified face, produced to maintain in any atmosphere a clean appearance, and is suitable for use in towns, having a heavy and smoky atmosphere.

PRICE.—According to design.

Manufactured by J. CLIFF & Sons, The Leeds Fireclay Co., Limited, Burmantoft's Works, Leeds.

DIVISION C .- CLASS I .- Section 6. Decorative Materials. (Continued.)

Faience Tile Dados. Bronze Medal, 1897.

Wall Decorations in Leeds Faience.

Bronze Medal, 1898.

To LEEDS ART POTTERY AND TILE Co., LTD.

DESCRIPTION & PRICES .- Illustrated Catalogue on application.

Manufactured by Leeds Art Pottery & Tile Co., Limited, Leathley Road, Hunslet, Leeds.

Fibrous Plaster. Bronze Medal, 1898.

To A. R. DEAN, LTD.

Description.—Fibrous Plaster is used for decorative relief work, it is composed of plaster of Paris in conjunction with fibre or canvas.

PRICES.—Designs and estimates on application.

Manufactured by A. R. Dean, Ltd., Birmingham.

Tynecastle Canvas. Bronze Medal, 1898.

To C. A. LINE.

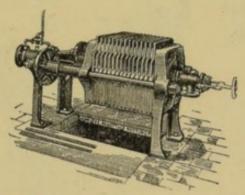
Description.—Tynecastle Canvas derives its name from the district in Edinburgh where it is produced. Its merits are its artistic surface and colouring qualities. The "Henri II" design was drawn from an old silk textile. This pattern measures  $30\frac{3}{8}$  inches wide. The price is 1s. 6d. per yard, in plain "Vellum," 31 inches wide; or 3s. per yard in plain "Canvas" in relief. Decorated samples to match or harmonise in colour with any curtains, carpets, etc.

DESIGNS AND PRICES.—On application.

Manufactured for A. Line, Burlington Chambers, New Street, Birmingham.

Paton's Filter Press, with Pneumatic Attachment. Silver Medal, 1889.

To Manlove, Alliott & Co.



Description.—The Filter-Press is an apparatus designed to filter sewage sludge through cloth or other similar filtering medium, which is fixed on movable frames arranged in such a manner that a large amount of filtering surface is provided in a small compass. The cloth being firmly supported, the liquid may be forced through under considerable pressure. The Press is intended to deal with the sludge as it comes from the settling tanks, and to discharge it in the form of dry cakes.

Manufactured by Manlove, Alliott & Co., Limited, Engineers, Nottingham.

## Fryer's "Destructor" with Jones's "Cremator." Silver Medal, 1889.

To Manlove, Alliott & Co.

Description.—The "Destructor" consists of a series of Furnaces or Cells with Sloping Hearth, so constructed that the refuse is fed on to the back or upper portion of the furnace, direct from the carts in which it is collected without any sertion or handling.

collected, without any sorting or handling.

The "Cremator" is a Supplementary Furnace, through which all the gases produced in the burning of the refuse are made to pass on their way to the chimney, and the gases being thus raised to a very high temperature, are rendered innocuous and inoffensive before being allowed to escape through the chimney into the atmosphere.

PRICE.—Varies from £400 to £1500 per Cell.

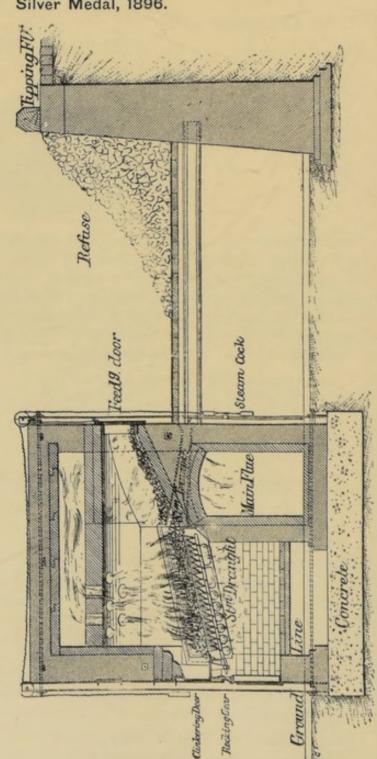
Manufactured by Manlove, Alliott & Co., Limited, Engineers, Nottingham.

Refuse Destructor.

Silver Medal, 1896.

To Horsfall Furnace SYNDICATE, LIMITED.

> DESCRIPTION.—Refuse Destructor, under Horsfall's and other patents, constructed with blowers for forced draught, and front flue arrangement, to ensure the "cremation" of the refuse and of all fumes given off thereby within the furnace itself. PRICES. - On application.



Manufactured by The Horsfall Destructor Co., Limited, Leeds.

## Horizontal Gas Engine.

Silver Medal, 1892.

To Crossley Brothers.

Description.—The block represents one of the latest type, viz., a 20 h.-p. (nominal) Engine, fitted with Tube Ignition and Timing Valve, and Cross-ley's Safety Gear to prevent the Engine starting backwards.

Sizes.-From 1 h.-p. to 170 h.-p.

PRICES.—1 h.-p. to 26.2 h.-p., £44 to £159. 33 h.-p. to 170 h.-p. on application.

Manufactured by Crossley Bros., Openshaw, Manchester.

# Crossley's Small Special High Speed Gas Engine. Silver Medal, 1894.

To CROSSLEY BROS.

Description.—Crossley's improved small type Horizontal Gas Engine, "BA" size, capable of indicating 3 h.p. at a speed of 250 revolutions per minute; fitted with patent pendulum Governor, regulating the gas consumption and speed of the engine in proportion to the work; also having two heavy fly wheels to ensure steady driving.

PRICES .- On application.

Manufactured by Crossley Brothers, Openshaw, Manchester.

Gas Engine Convertible into Oil Engine.

Bronze Medal, 1897.

To A. DOUGILL & Co.

Description.—The Oil, which can be any kind of American or Russian petroleum is admitted into the firing chamber by means of gravitation, or by a pump, as required. A lamp is used for starting the Engine, and after it has been worked for a short time under its load, the lamp can be taken away or put out and the Engine continues to work by its own internal combustion. The whole of the working parts are actuated by two cams, and the Engines are fitted with a hit and miss pendulum governor, which only allows the Engine to take Oil according to the work being done, and by which the speed can be regulated whilst the Engine is running.

The Engine is built on the Otto principle. In large cities or towns where buildings are being erected, this Engine can be connected to the Gas mains and worked by Gas instead of Oil. The Engine may also be worked by gasolene, for which a small Carburetter is supplied.

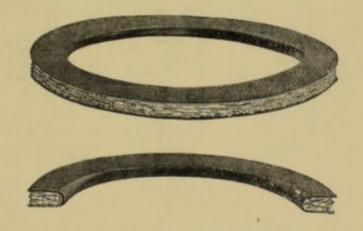
PRICES.—Stationary Engines, from £34 to £200; Portable, from £59 to £250.

Manufactured by A. Dougill & Co., Ltd., 36, Great George Street, Leeds.

#### Indestructible Washer.

Bronze Medal, 1892.

To Peters, Bartsch & Co.



Description.—These Washers are made out of thin, soft metal bent into a ring of U section, and the groove thus formed is filled with asbestos or hemp. The metal makes the joint, whilst the asbestos or hemp forms a cushion, which adapts itself to any unevenness in the flanges.

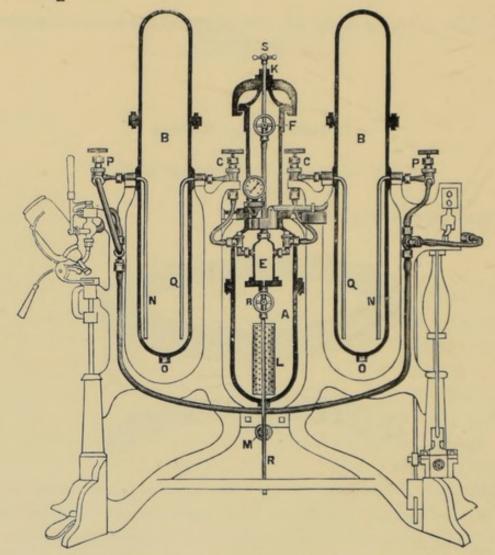
Sizes.—Made in sizes from  $\frac{1}{2}$  in. to 10 ft., or even more.

PRICES.—From 3s. per dozen upwards.

Manufactured by Peters, Bartsch & Co., Derby.

Aerated Water Machines. Bronze Medal, 1894.

To A. Lozé & Co.



Description.—Sulphuric acid and water are put into generator A. Cap K is fitted hermetically on top of generator. Perforated box L, containing bicarbonate of soda, is suspended to Rod S in neck of generator. For producing gas, L is brought into contact with acid and water.

B Cylinder on hollow arms is filled with liquid through bung O. The tubes Q and N, inside cylinder B, are connected by the hollow arms as follows:—N to water valve P, and Q to gas valve C. N water pipe goes down to bottom of B, and takes aerated water to valve P, which is the connecting valve to the filling machines.

E Accumulator with safety valve, check valves, and pressure gauge. through E all gas passes from generator to saturators, and it is connected

with A by valve F and with B by valve C.

PRICES.—On application.

Manufactured by A. Lozé & Co., 281, West Derby Road, Liverpool.

Machine for the preparation of ribbons required for typewriters and for the ribbons prepared by this machine.

Bronze Medal, 1894.

To Miss Guibal.

DESCRIPTION.—Inking, Winding, and Measuring Machine, capable of preparing many grosses yards of ribbon per day.

Sizes.—Average about 4 ft. long, 3ft. high, and 1 ft. 6 in. wide, for optional moter, foot and hand motion; smaller sizes, hand motion alone.

PRICES .- From 25 to 100 Guineas.

Manufactured only by Susanna J. F. Guibal, 9, Slater Street, Liverpool.

\* "Bland" Copying Machine.

Bronze Medal, 1889.

To W. BLAND & Co.

Fancy Stationery, Bindings, and Machine Rulings.

Bronze Medal, 1890.

To J. BEAL & SON.

Manufactured by J. Beal & Son, 55, East Street, Brighton.

\* See Note on Page 20.

# Black's Signalling and Speaking Tube Apparatus. Bronze Medal, 1889.

To R. W. Tomlinson.

Description.—The Speaking Apparatus and Bell are combined in one. It can be used as a Signal Bell only, or as a Speaking Tube. By pressing the india-rubber ball at the mouthpiece a bell is rung at each end of the Tube. When the mouthpiece is lifted a little valve falls out of the seat or neck of the mouthpiece, and the Tube is clear for speaking.

PRICES.—7s., 12s. 8d., and 18s. 8d. each end. With Indicator, 1s. 9d. extra.

Manufactured by Baxendale & Co., Miller Street, Manchester.

"Abel" Apparatus for Testing Flushing Point of Oil.

Bronze Medal, 1896.

To THE LONDON AGENCY, St. Mary Axe, London, E.C.

Domestic Motor.

Silver Medal, 1892.

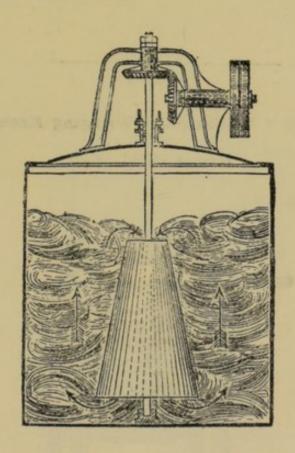
To CROMPTON & Co., LIMITED.

Manufactured by Crompton & Co., Limited, 35, Queen Victoria Street, E.C., and Chelmsford.

## Rapid Mixer for Liquids.

Bronze Medal, 1898.

To Burt, Boulton & Haywood.



DESCRIPTION.—Consists of a rapidly revolving hollow cone.

Sizes.—Can be made in all sizes.

PRICES.—Vary with requirements.

Manufactured by H. Young & Co., Eccleston Iron Works, Pimlico, S.W.

DIVISION C .- CLASS I .- Section 8. Laundry Appliances.

\* Greenall's Steam Washer.

Greenall's Improved Steam Washer.

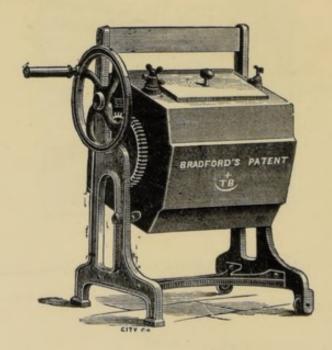
Silver Medals, 1890, 1892 and 1894.

To JOHN GREENALL

Vowel Y Washing and Wringing Machine.

Bronze Medal, 1894.

To T. BRADFORD & Co.



PRICES .- £4 4s. and £5 5s.

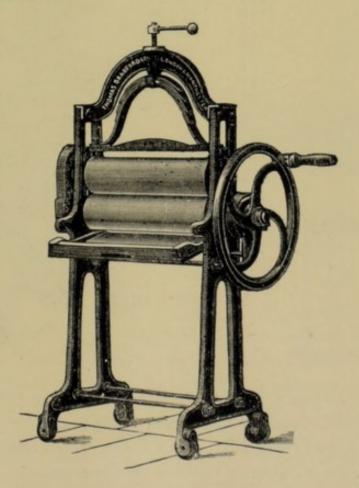
Manufactured by T. Bradford & Co., Crescent Iron Works, Salford.

\* See Note on Page 20.

## Differential Wringing and Mangling Machine.

Bronze Medal, 1834.

To T. BRADFORD & Co.

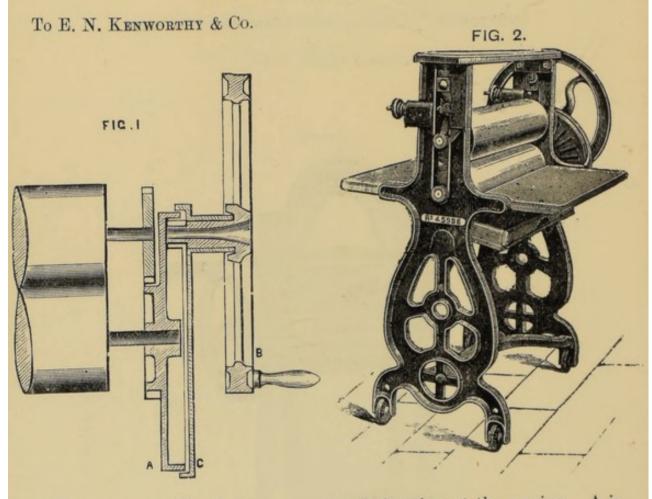


Sizes .- 21 in. Rollers to 30 in. Rollers.

PRICES.-From £3 5s. to £4 8s.

Manufactured by T. Bradford & Co., Crescent Iron Works, Salford.

# Equipoise Wringer and Mangle. Bronze Medals, 1894 & 1898.



Description.—Fig. 1 shows a sectional elevation of the gearing. A is an annular wheel keyed on the bottom roller shaft, and is driven by a pinion cast to the fly-wheel B. C is a fixture which forms a bearing for the fly-wheel, as well as being a guard for the annular wheel and pinion. The fly-wheel is kept in position by a catch hinged to the guard fixture C. Fig. 2 shows the new pressure arrangement and the mangling boards in position. The pressure arrangement consists of a knuckle joint, operated upon by a spiral spring.

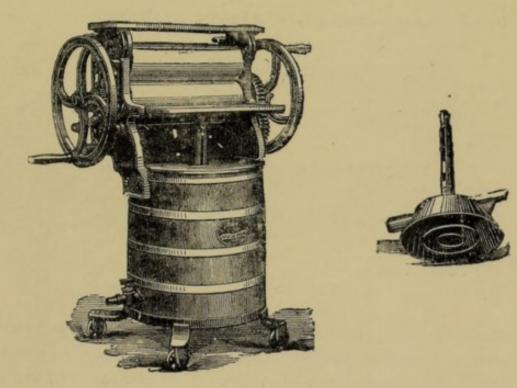
Sizes.— 20 in. 21 in. 24 in. 27 in. 30 in. PRICES.— £2 5s. £2 17s. 6d. £3 5s. £3 12s. 6d. £4.

Manufactured by E. N. Kenworthy & Co., Alpha Works, Oldham.

Paragon Washer and Wringer.

Bronze Medals, 1894 & 1898.

To E. N. KENWORTHY & Co.



Description.—An "atmospheric plunger" is used to perform the work of the old form of "Dolly." The washing part consists of a wooden tub, secured on an iron stand, supported on castors. Above the tub is fixed the wringing rollers. The wheel and handle give motion to a shaft placed behind, and on this shaft is a lever that enters the slotted recess in the handle of the "dolly" or plunger. By turning this wheel the plunger is moved upwards and downwards in the tub. The plunger is constructed of several cones, each placed inside the other, leaving air spaces between. These spaces, in working, enclose a volume of air that acts as a cushion, for forcing the hot water and soap through the clothes. In the plunger a spring is placed, so that if by carelessness the person using the machine puts too much in at a time, it yields, so as not to damage the clothes or machine.

PRICE.—From £5 5s. each.

Manufactured by E. N. Kenworthy & Co., Alpha Works, Oldham.

## Improved Challenge Ironing Machine.

Bronze Medals, 1898 and 1899.

To W. SUMMERSCALES & Co.

DESCRIPTION.—This machine consists of a truly-turned cylindrical cast iron roller, supported in cast iron frame, and revolving in steam-heated concave bed, with polished ironing surface. The roller can be lifted clear away from bed by means of hand-wheel, facilitating the cleaning of machine. A feed-lip is provided.

Sizes.-Made with roller from 54 in. to 108 in.

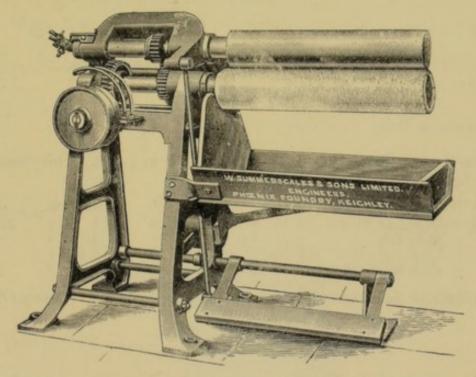
PRICES.—From £50 to £115, on rails at Keighley.

Manufactured by W. Summerscales & Sons, Ltd., Engineers, Keighley.

## Body Ironing Machine.

Bronze Medal, 1899.

To W. SUMMERSCALES & SONS, LIMITED.



Description.—The Machine consists of two truly turned cylindrical rollers of cast iron, supported at one end in strong cast iron frame. These rollers are 30 in. long by 6 in. diameter, the top one being highly polished and heated by a forced gas and air supply, and the bottom one is covered with felt and cotton; also the top roller is carried in a swinging arm operated by foot lever. When the machine is at rest the rollers remain apart ready to receive the linen to be ironed, and are brought together by means of a foot lever, which at the same starts the machine; and further, when released the rollers spring apart and the machine stops. The machine is driven by worm and spur gear, and arranged so that the wheels are always in gear, whether the top roller is raised or lowered. The gas connections are at the gearing end of machine, thus leaving the rollers quite free to the operator. The machine is driven at right angles to the shaft, thus economising space. The heated roller has a closed end, thus obviating any possibility of scorching or burning the linen.

PRICES.-30-in. Rollers, £35; 36-ir. Rollers, £26.

Manufactured by W. Summerscales & Sons, Limited, Phænix Foundry, Keighley.

\* Salt-Glazed Wash Tub and Rubber Combined.

Bronze Medals, 1898 and 1899.

To OATES & GREEN, LTD.

# White Enamelled Fireclay Wash Tubs. Bronze Medal, 1899.

To Howson & Sons, Limited.

DESCRIPTION.—Range of three Wash Tubs, in fireclay white enamelled, with pedestals to match.

Sizes of each Tub	$24 \times 20$			$27 \times 20$			$27 \times 24$			$30 \times 24$		
PRICES.—Complete Range	±9	16	0	£10	17	9	£12	7	0	£13	9	6
Each Tub	2	3	4	2	10	7	3	0	4	3	7	10
Each Pedestal	0	11	6	0	11	6	0	11	6	0	11	6
Each Waste Plug	0	6	8	0	6	8	0	6	8	0	6	8

Manufactured by George Howson & Sons, Limited, Hanley, Staffs.

DIVISION C .- CLASS I .- Section 9. Dairy Appliances.

\* Model Working Dairy.

Bronze Medal, 1889.

To MISS McCLEOD SPOONER.

Model Dairy.

Silver Medal, 1890.

To ARTHUR DANN.

Description and Use.—Cream separating by centrifugal force; the Jersey Creamer; Churning Butter; Working same, and weighing and making up; Cream Cheese making.

<sup>\*</sup> See Note on Page 20.

## Dairy Farmers' Working Dairy.

Bronze Medal, 1894.

To COOKE BROS.

Description.—Fitted up with concrete floor and modern dairy appliances, such as Alpha Laval Separator, Diaphragm Churn, and Albany Butter Worker, &c.

Manufactured by Cooke Bros., The Creamery, Tattenhall, Chester.

Victoria Churn. Bronze Medal, 1890.

To ARTHUR DANN.



DESCRIPTION.—This Churn is in the form of a barrel, without heaters either fixed or movable, and revolves over end ways. The entire end of the Churn forms the lid; hence, there are no corners out of sight, and it is easy to keep it clean. Set into the lid is a glass window which admits of the contents inside the Churn being seen, thereby preventing overchurning.

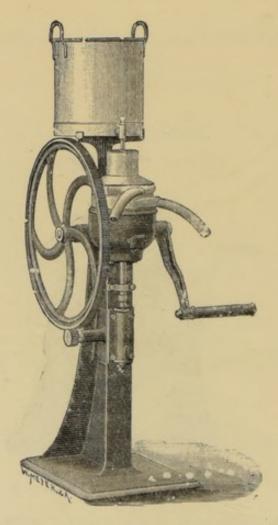
Sizes.— 2, 3, 4, 6, 9, 12 Gallons.

PRICES.-£2 15s. £3 5s. £3 17s. £4 14s. £5 5s. £5 15s.

Manufactured by Dairy Supply Co., Museum Street, London, W.C.

Alpha Cream Separator. Silver Medal, 1892.

To NORTH WILTS DAIRY Co.



DESCRIPTION.—This machine is fitted with "Alfa" Patent Discs, which by dividing the milk inside the separating bowl into a number of shallow layers, enable a given quantity of milk to be separated in one-half the time otherwise required.

PRICE.—Hand power, separates 100 gallons per hour, complete, £26 10s.

Sold by The Dairy Supply Co., Limited, Solo Agents, 28, Museum Street, London.

## New Arch Albany Butter Worker.

Bronze Medal, 1894.

To T. BRADFORD & Co.



Description.—The Roller is grooved helically like the worm of a screw, and is mounted in a bridge which travels backwards and forwards over the top of the working tray.

Sizes.-14 in. to 24 in.

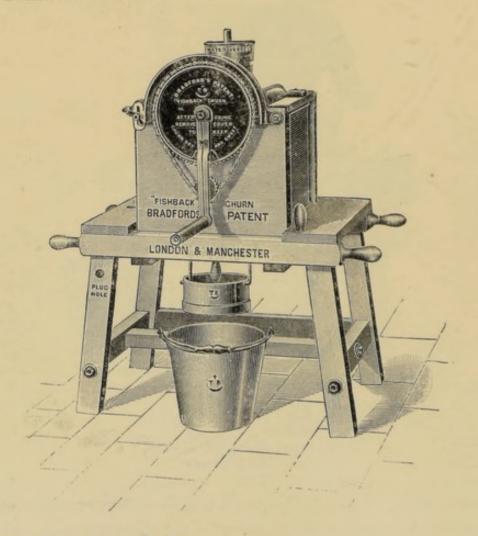
PRICES .- £2 10s. to £5.

Manufactured by T. Bradford & Co., Crescent Iron Works, Salford.

Fishback Churn.

Bronze Medal, 1894.

To T. Bradford & Co.



PRICES.-£2 4s. 6d. to £4 14s.

Manufactured by T. Bradford & Co., Crescent Iron Works, Salford.

## DIVISION C.—CLASS II.—WATER SUPPLY AND SEWERAGE,

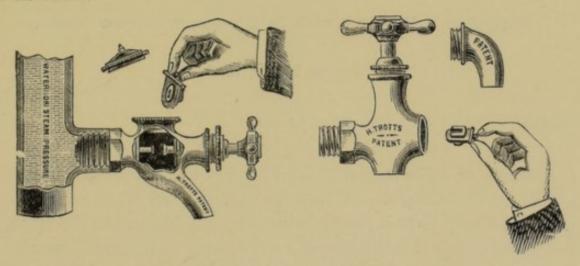
DIVISION C .- CLASS II .- Section 1. Apparatus for Water Supply.

#### Trott's Patent Valves.

#### Removable Valves for Hot and Cold Water Cocks.

Bronze Medals, 1889 and 1892.

TO H. TROTT.



Description.—These Valves consist of a Sliding or Swinging Valve in a chamber covered with a screwed Cap or Nozzle, the unscrewing of which facilitates the removal of the inner Valve, and the insertion of new Asbestos or Metal Discs, when necessary.

Sizes.—
$$\frac{3}{8}$$
 in.,  $\frac{1}{2}$  in.,  $\frac{3}{4}$  in., 1 in.  
Prices.—  $6/3$  8/-  $10/3$   $16/3$ 

Proprietors and Sole Manufacturers—Henry Conolly & Co., Patentees and Manufacturing Sanitary and Electrical Engineers, Head Office, 42, Hampstead Road, N.W.; Factories and Warehouses, Tolmers Square, N.W.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply.

(Continued.)

Combined Bath Valve with Interlocking Gear for Waste.

Bronze Medal, 1892.

TO TROTT VALVE AND ENGINEERING CO.

DESCRIPTION.—The Apparatus is operated by one handle turning round a front indexed dial-plate, and supplies hot, cold, and tepid water in any required proportions to the Bath through the same outlet, and also controls the waste valve which, by a simple interlocking arrangement, cannot be opened unless the inlet valves are closed.

PRICES.—Without waste, £5; Including waste, &c., £5 10s. and £6.

Proprietors and Sole Manufacturers—Henry Conolly & Co., Patentees and Manufacturing Sanitary and Electrical Engineers, Head Office, 42, Hampstead Road, N.W.; Factories and Warehouses, Tolmers Square, N.W.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

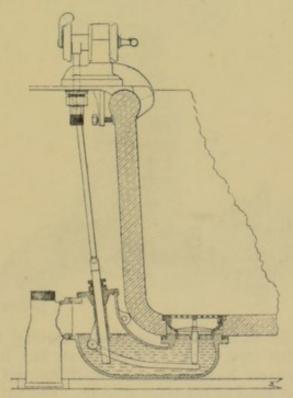
Duplex Supply and Waste Valve for Baths and Lavatories.

Bronze Medal, 1898.

Porcelain Bath with Duplex Supply Valves.

Bronze Medal, 1899.

To G. JENNINGS.



Description.—By the introduction of these fittings hot water cannot be turned on without first opening the cold valve, then hot and cold together, the handle having to be turned a two-thirds circuit of the dial before a hot supply only can be obtained; all risk of accidentally scalding a patient being thus effectually prevented. Both valves are opened full way by a one-half turn of spindle, and when released close gradually without percussion under the highest pressure. The position of the inlet unions can be varied to suit connections as may be required. For public baths a second or alternative dial face on exterior of partition in corridor can be provided, so that the manipulation of the fittings, by an ordinary handle or loose key, may be under the control of the attendant without entering the apartment. The same description of valve is made of a suitable form and size for lavatory purposes.

PRICES.—On application.

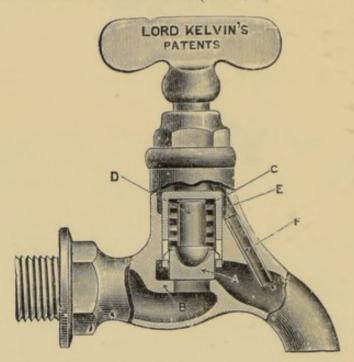
Manufactured by G. Jennings, Ltd., Lambeth Palace Road, London, S.E.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

Lord Kelvin's Water Tap. Bronze Medals, 1890 and 1892.

To Bostel Bros. (1890).

To Portsmouth Water Fittings Co. (1892).



Description.—The composite valve A on reaching the seat B, is not brought to a sudden stop as in ordinary taps, but is seated gradually, receiving meanwhile an increasing pressure from the spring C, applied through the rounded head of the rivet stop D. The turning of the spindle revolves the valve upon its seat, and both thereby acquire and maintain a perfect fit and burnish. No packing is used to prevent upward leakage. All water which passes upwards when the tap is opened enters the annular space E, and is drawn off into the bib by the current induced in the eduction tube F, by the velocity of the out-flowing water. This device is thoroughly effective when the outlet is free, but stop cocks and hose cocks are provided with the ordinary stuffing box. The rivet stop D is so arranged that when the tap is fully shut off it passes up the centre of the spring and bears on the solid metal, making it impossible for increased night pressure io lift the valve and allow water to escape. Users should, therefore, take care to shut fully off after use.

Sizes.— $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$ , 2. Prices.—3/- 4/6 5/9 6/6 9/6 18/- 26/- 44/-

Manufactured by Palatine Engineering Co., 10, Blackstock Street, Liverpool.

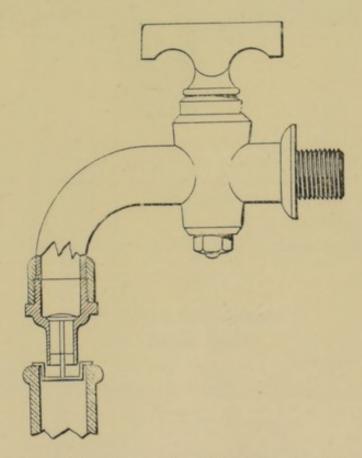
DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply.

(Continued.)

Whitehead's Automatic Taps for Drawing off Liquids.

Bronze Medal, 1898.

To CLARK'S OPTIMUS COFFEE CO., LTD.



DESCRIPTION.—Consists of a nozzle with internal valve, affixable to an ordinary liquid draw-off tap. By the pressure of the mouth of a bottle a valve is lifted, which allows the liquid to flow until the pressure of the bottle mouth is removed, when the valve will close.

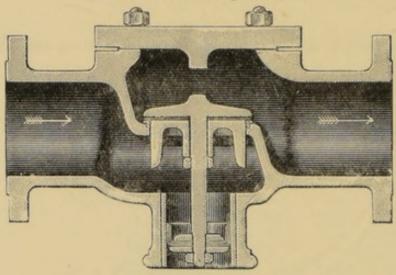
Prices.—On application.

Manufactured by Clark's "Optimus" Coffee Extract, Ltd., Queen's Road, Battersea. DIVISION C.-CLASS II.-Section 1. Apparatus for Water Supply. (Cont.)

## Excellence in Manufacture of Water Fittings. Silver Medal, 1889.

To GUEST & CHRIMES.

Pressure-Reducing Valve.



Description.—By varying the size of the Piston underneath the Valve at the inlet side, the pressure in water mains beyond the Valve or in house service pipes be may reduced to any extent desired. Made with Cast Iron body and Gun Metal working parts.

PRICES.-From £2 2s. to £7 each.

Manufactured by GUEST & CHRIMES, Rotherham.

## Self-Acting Air Valves.

Bronze Medal, 1889.

To GUEST & CHRIMES.

Manufactured by Guest & Chrimes, Rotherham.

## Improved Chain Pump. Bronze Medal, 1890.

TO W. CLEMENS ABELL & Co.

DESCRIPTION.—Consists of an Endless Chain with Discs of iron fixed at the joints, which is drawn through the barrel of the Pump.

Sizes.—2 in. to 4 in.

PRICES.—Pump 12 ft., £4 to £8; for extra length 5s. to 10s. 6d. per Foot.

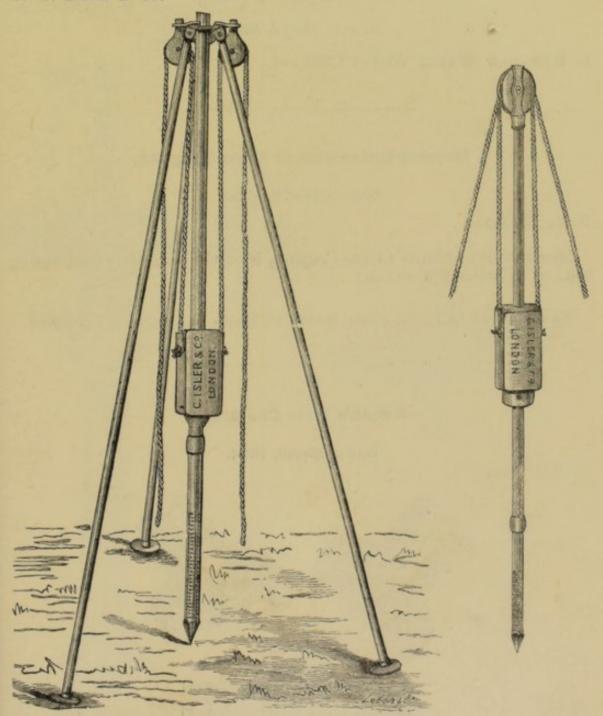
Manufactured by W. CLEMENS ABELL & Co., Worcester Wagon Works,

Worcester.

DIVISION C. -CLASS II.—Section 1. Apparatus for Water Supply (Continued.)

Tube Wells. Bronze Medal, 1898.

To C. ISLER & Co.



Sizes.—From 11 in. to 3 in. Tube.

PRICES.—3 feet, 1\frac{1}{4} in. Well Point, 10s.; 3 feet, 3 in. Sand Tubes, £1 18s. Tubing from 1s. per foot. Driving Apparatus from £5 5s. to £31.

Manufactured by C. Isler & Co., Artesian Works, Bear Lane, Southwark, S.E.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

Baker's Water Hydrant.

Bronze Medal, 1890.

TO BRIGHTON WATER WORKS COMPANY.

## Morris's Instantaneous Hose Coupling.

Bronze Medal, 1894.

To B. R. ISAAC.

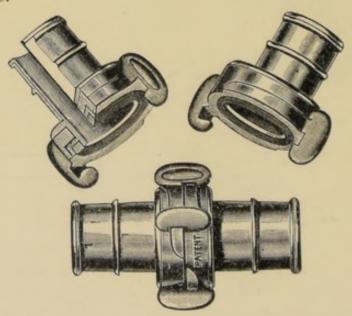
DESCRIPTION.--Morris's Hose Coupling is on the principle of the spring bolts of an ordinary door lock.

Manufactured by B. RICHARD ISAAC, 45, South John Street, Liverpool.

## Nunan's Hose Coupling.

Silver Medal, 1894.

To B. R. ISAAC.

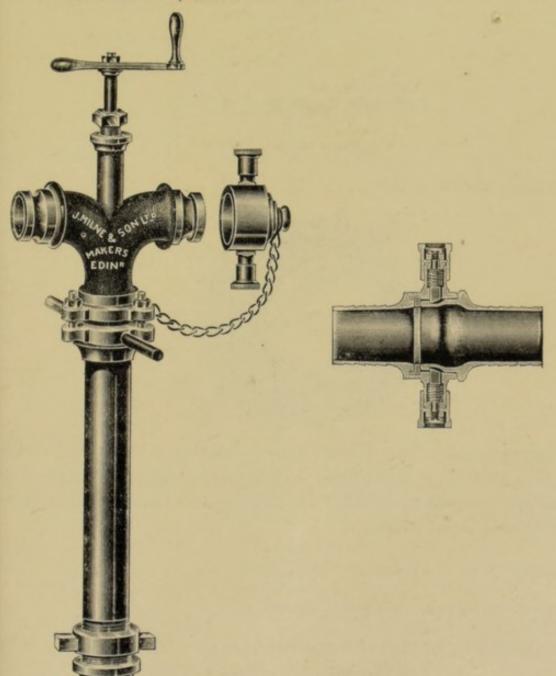


Manufactured by B. RICHARD ISAAC, 45, South John Street, Liverpool.

DIVISION C .- CLASS II .- Section 1. Apparatus for Water Supply. (Cont.)

"Instanter" Grip Fire Hose Connection.
Silver Medal, 1897.

To J. MILNE & SON, LTD.



Description.—The fittings are made of aluminium and the Rubber Washer in these connections is an improved section, giving a clear bore.

PRICE.—£1 5s. Valve steampipe for ball hydrant; double outlet, with blind cap, price, £5.

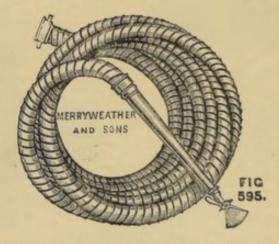
Manufactured by J. MILNE & Son, 60, Holborn Viaduct, E.C., and Edinburgh.

DIVISION C.-CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

#### Armoured India Rubber Hose.

Bronze Medal, 1890.

To MERRYWEATHER & SONS.



DESCRIPTION.—A Hose of India Rubber with Canvas Plies bound on the outside with Wire of Spring-Steel or Brass, the coil being self-holding and preventing wear of the Rubber by abrasion, and enabling the Hose to stand great internal pressure.

Sizes.—Made in all sizes from  $\frac{1}{8}$  in. upwards.

PRICE.—2s. per foot, 1 in. internal diameter.

Manufactured by Merryweather & Sons, Limited, Greenwich Road, S.E., and 63, Long Acre, W.C., London.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

\* Anderson's Pipe Coupling.

Bronze Medal, 1899.

To Anderson's Patent Pipe Coupling Syndicate.

## Enamelled Fireclay Cisterns.

Silver Medal, 1892.

To BROAD & Co.

Description.—The Cisterns are enamelled and glazed on the inside surfaces of sides, and bottom, all sharp angles being avoided.

Sizes.  $-36 \times 24 \times 18$ ;  $42 \times 24 \times 20$ ;  $42 \times 24 \times 24$ .

PRICES .- £3 10s.

£4 5s.

£5

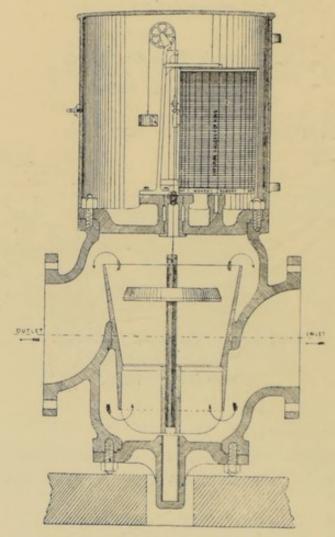
Manufactured by BROAD & Co., LIMITED, South Wharf, Paddington.

\* See Note on Page 20.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

Deacon's Waste Meter. Silver Medal, 1894.

To PALATINE ENGINEERING Co.



Description.—The Meter is placed in the service main, and the water has to pass up the conical chamber shown in the Illustration. In this chamber is a horizontal disc attached to a vertical rod, free to move up and down through the guide tube at the bottom of the conical chamber. When no water is passing, the disc falls to the bottom of the chamber; but directly a flow takes place, the disc is raised to a height proportionate to the amount of water passing. To the top of the rod carrying the horizontal disc is attached a wire which passes into the recording chamber above, and is kept taut by a weight. Attached to this wire is a small carriage, with a recording pencil pressing against the revolving drum driven by a clock. The movement of the carriage with the recording pencil correspond exactly with the movement of the disc in the conical chamber below, and records upon the drum the amount of water passing during a given time.

Sizes.—From  $1\frac{1}{2}$  inches diameter up to 36 inches.

PRICES.—On application.

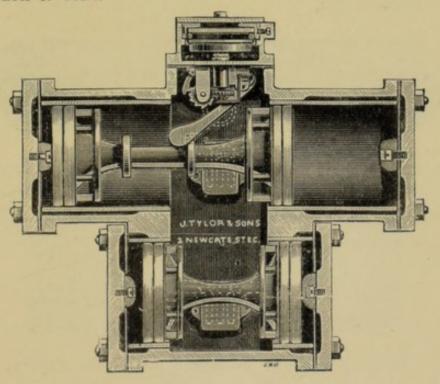
Manufactured by Palatine Engineering Co., 10, Blackstock St., Liverpool.

DIVISION C.--CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

#### Positive Water Meter.

Bronze Medal, 1892.

To J. TYLOR & SONS.



Description.—The Meter consists of a cast-iron casing, containing four cylinders lined with gun-metal, and open to the central water chamber. The pistons working in these cylinders are free to turn on their axes, and consequently take up the position of least friction. Each piston is provided with cup leathers, accessible and removable by loosening the plates at ends of Meter. The pistons are coupled by a gun-metal rigid connection. Each pair of pistons in its turn actuates the valve of the other pair in such a manner that no dead point occurs, and the movement of both pistons and valves is free and uncontrolled by guides, stuffing-boxes or bearings. The valves of the Meter, kept on their faces by the pressure of the water, are of the ordinary 3-port class, and are interchangeable without adjusting or removing other parts of the Meter.

Sizes.—  $\frac{3}{8}$  in.  $\frac{1}{2}$  in.  $\frac{3}{4}$  in. 1 in. PRICES.—£3 13s. 6d. £5 £7 7s. £10 10s.

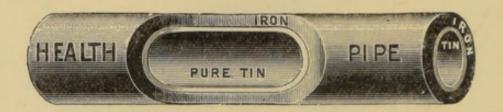
Manufactured by J. Tylor & Sons, Limited, 2, Newgate Street, E.C.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

#### Walker's Block Tin Lined Iron Pipe.

Bronze Medal, 1897.

To E. WALKER & Co.



DESCRIPTION.—This Pipe consists of an iron tube with an internal lining of block tin, so united at their surface of contact as to be inseparable by the action of the water. If required, it is also made with insulated lining as a protection against frost.

Sizes.—  $\frac{3}{8}$   $\frac{1}{2}$   $\frac{3}{4}$  1  $1\frac{1}{4}$   $1\frac{1}{2}$  2 in.

PRICES.— 6d. 8½d. 10½d. 1/3 1/10 2/2 2/6 per foot.

Manufactured by E. Walker & Co., Heckmondwike.

Lead Pipe made in any Length.

Bronze Medal, 1898.

To Rowe Bros. & Co.

PRICES .- On application.

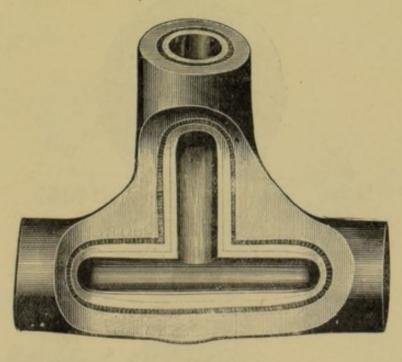
Manufactured by Rowe Bros. & Co., Clement Street, Birmingham.

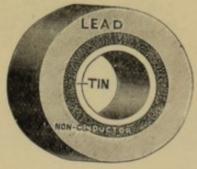
DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued).

#### Eureka Tin Lined Lead Pipe.

Bronze Medal, 1898.

To A. BARRACLOUGH & Co., LTD.





DESCRIPTION.—Consists of an outer case of lead and an interior pipe of tin, with a layer of asbestos between.

Sizes.— $\frac{3}{8}$  in. to 2 in., in lengths averaging 23 yards.

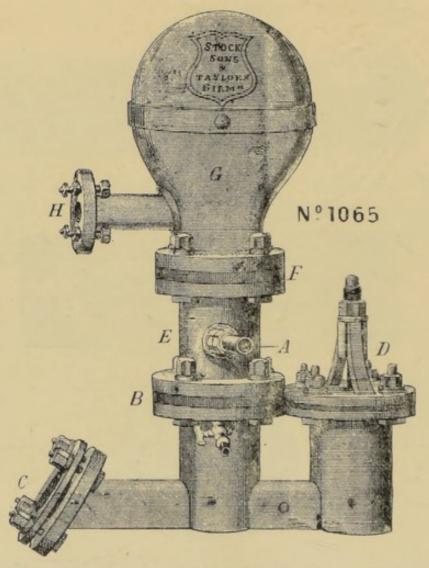
PRICES .- On application.

Manufactured by A. Barraclough & Co., Ltd., Eureka Works, Heckmondwike, Yorkshire. DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply. (Continued.)

### Hydraulic Ram with Valves.

Bronze Medal, 1898.

To STOCK SONS & TAYLORS, LTD.



DESCRIPTION.—A is the entrance pipe for the pure water to the body of the Ram. B is a flexible flanch, acted upon by the impure water entering the working part of Ram at C, and escaping at the pulse-valve D. At each pulsation the flexible flanch B forces pure water from the body of ram E through the valve in the flanch F into the air vessel G, and through a rise pipe at H to the tank or reservoir.

PRICE.—£7 5s. Larger if required, to £25.

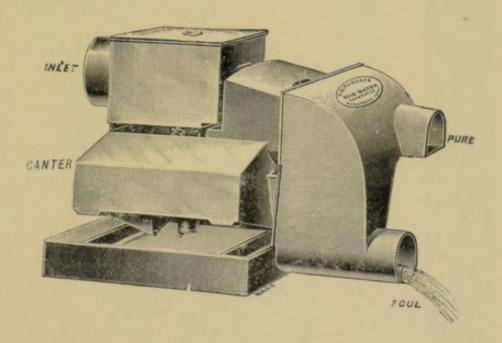
Manufactured by Stock Sons & Taylors, Limited, Birmingham.

DIVISION C .- CLASS II .- Section 2. Filtering and Softening Water.

#### Horizontal Rain Water Separator.

Silver Medal, 1892.

To C. G. ROBERTS.



Description.—The Horizontal Separator is made of zinc upon an iron frame. It consists of a fixed head that receives the water, and a fixed outlet box, with two delivery pipes for foul and pure water respectively. The canter, or third part of the Separator, is removable, and is balanced upon a pivot. A heavy weight on the back of the canter keeps the front of it usually lifted up in the position shown in figure. There are two open channels in the upper part of the canter. When the canter is up, the front channel directs the water that comes from the head into the (lower) foul water delivery pipe; when the canter is down, the back channel directs the water into the (upper) pure water delivery pipe.

PRICES ON RAIL AT HASLEMERE.—From £2 5s.

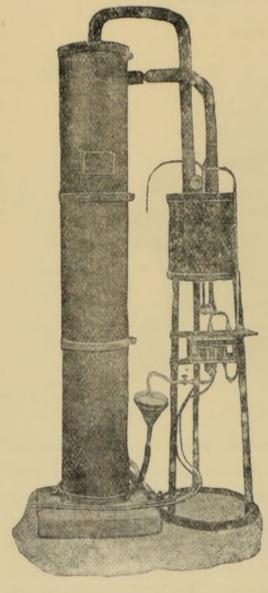
Manufactured by H. J. Rogers, Shottermill, Haslemere, Surrey.

DIVISION C.—CLASS II.—Section 2. Filtering and Softening Water. (Continued.)

#### Maiche Water Steriliser.

Silver Medal, 1898.

To MAICHE, LTD.



Description.—The water to be purified from the service pipes or other source, enters at the top of the column. It then passes through the inner of two concentric tubes, which are spirally coiled round a series of vertical pipes situated in the centre of the column. On reaching the bottom it ascends through the vertical pipes, and flows into the water heater shewn on the right of the column. It is here heated to 235° F. for a period of 20 minutes by a Bunsen flame, after which it flows out round the outside of the pipes in which the cold water flowed inwards; in so doing it gives up its heat to the inflowing water and is discharged cold. The working is controlled by a thermostatic valve which will only permit the discharge of water after having been raised to the temperature of 225° F. The supply of gas is also controlled automatically.

Sizes.—These sterilisers are supplied in all sizes for household or trade purposes.

Manufactured by MAICHE, LTD., 56, Berners Street, London, W.

Vaillard Desmaroux Water Steriliser. Silver Medal, 1898.

To J. E. Webb, Poultry, E.C.

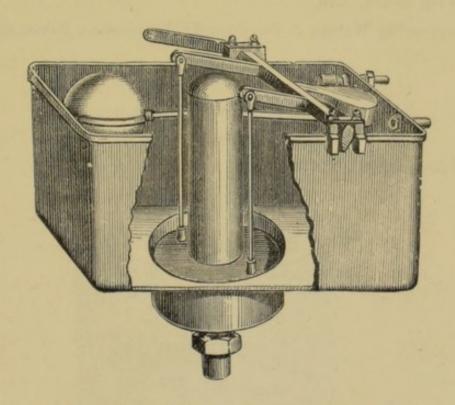
DIVISION C .- CLASS II .- Section 3. Water Waste Preventers.

# Shanks's "Reliable" Water-Waste Preventer.

Bronze Medals, 1889 and 1892.

To J. Ward & Son, 1889.

To Portsmouth Water Fittings Co., 1892.



Description.—Is made entirely without valves, on the Siphon principle. There is a Well or Dip, in which an Annular Disc works but does not fit closely, and through the centre of this Disc stands the Siphon-Pipe. The Disc being depressed by the Lever, forces the water into the Pipe and starts the Siphon.

	Painted,	Glass Enamelled,	Galvanized,	Porcelain Enamld.
PRICES 2 Gal	ls., 19/6	24/-	24/6	26/6
3 ,,	21/6	26/-	27/-	29/-
4 ,,	25/-	30/-	32/-	33/-

Manufactured by Shanks & Co., Barrhead, N.B.

## DIVISION C.—CLASS II.—Section 3. Water Waste Preventers. (Continued.)

# "Tornado" Water-Waste Preventer. Bronze Medal, 1889.

To R. W. Tomlinson, Worcester.

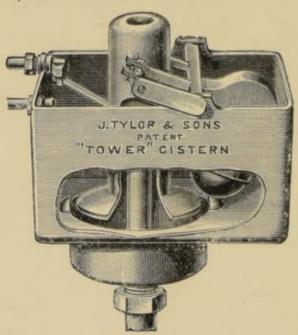
## The Winser After-Flush Cistern. Bronze Medal, 1889.

To Winser & Co., Ltd.

Manufactured by Winser & Co., Ltd., 52, Buckingham Palace Road, S.W.

"Tower" Waste Preventer.
Silver Medal, 1890.

To J. TYLOR & SONS, LIMITED.



DESCRIPTION.—This is an Annular Siphon Cistern; by pressing the iron dome into the well in which it works, the water is driven into the pipe and starts the Siphon.

Sizes.—1 Gallon (for Urinals), 2 Gallons, and 3 Gallons.

PRICES.-1 Gallon from 10s.; 2 Gallons from £1; 3 Gallons from £1 5s. 6d.

Manufactured by J. Tylor & Sons, Limited, 2, Newgate Street, E.C.

DIVISION C .- CLASS II .- Section 3. Water Waste Preventers. (Continued.)

\* The Presto Seat Action Siphon Waste Preventing Cistern.

Bronze Medal, 1892.

To John Knowles & Co.

Silent Arrangement for Tower Waste Preventer.

Bronze Medal, 1892.

To J. TYLOR & SONS, LIMITED.

DESCRIPTION.—A Valve, with weight and float, is attached to dome of Siphon. When the dome is pulled down to start the Siphon, the weight keeps the Valve closed; but when the water level falls in the Cistern, below the float, the Valve is opened, admitting air into the top of the Siphon, and preventing the gurgling noise formerly made when air and water entered together at the bottom of the Siphon.

PRICE.—4s. 6d. in addition to price of Cistern.

Manufactured by J. TYLOR & SONS, LTD., 2, Newgate Street, London, E. and Belle Isle, York Road, N.

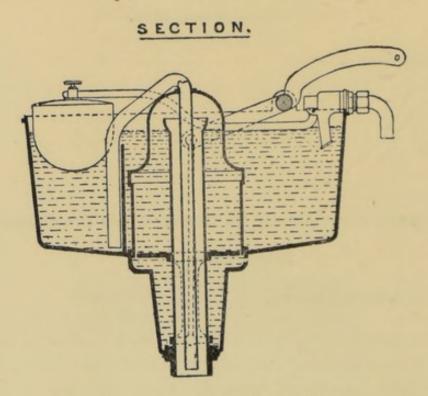
<sup>\*</sup> See Note on Page 20.

DIVISION C .- CLASS II .- Section 3. Water Waste Preventers. (Continued.)

Quick-Filling Flush Siphon Cistern for Closets.

Bronze Medal, 1892.

To G. JENNINGS.



DESCRIPTION.—The cistern is put in action by the raising of the plunger inside the dome driving the water over the top of the inner pipe of the Siphon. The float of the valve is placed in a separate compartment, which is emptied by a small Siphon discharging down the flush pipe, and filled at the last moment by water passing over a weir.

Sizes .- 1 Gallon,

2 Gallons.

PRICES.—£1 1s. to £1 7s. 6d. £1 10s. to £1 17s. 6d.

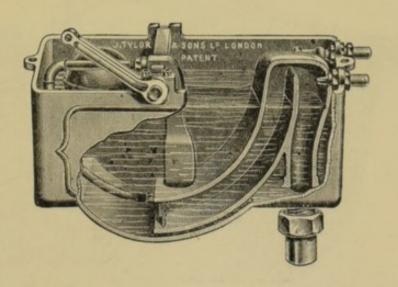
Manufactured by G. Jennings, Limited, Lambeth Palace Road, London, S.E.

DIVISION C .- CLASS II .- Section 3. Water Waste Preventers. (Continued.)

#### Column Waste-Preventing Cistern.

Bronze Medal, 1894.

To J. TYLOR & SONS.



Description.—"Column" Valveless Waste-Preventing Siphon Cistern. The water is pushed over the bend of Siphon by means of a ram which loosely fits into the enlarged and rectangular-shaped mouth of Siphon. The ram is connected with the lever of pull.

Sizes.—2 Gallons. 3 Gallons.

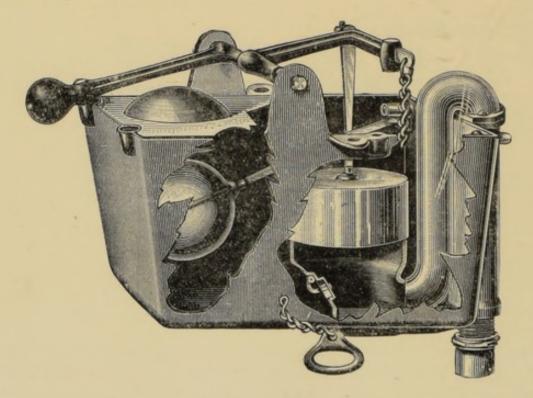
PRICE.-£1 6s. 6d. £1 11s. 6d.

Manufactured by J. TYLOR & SONS, LIMITED, 2, Newgate Street, London, E.C. DIVISION C.—CLASS II.—Section 3. Water Waste Preventers. (Continued.)

Anderson's Siphon Flushing Cistern with Foreing Action.

Bronze Medal, 1894.

To PERRIN, HUGHES & Co.



DESCRIPTION.—The water is driven over the bend of the Siphon by depressing the plunger; a small flap valve prevents the water being driven back into the Cistern.

Sizes.-2, 3, and 4 Gallons.

PRICES.—From 30s. each.

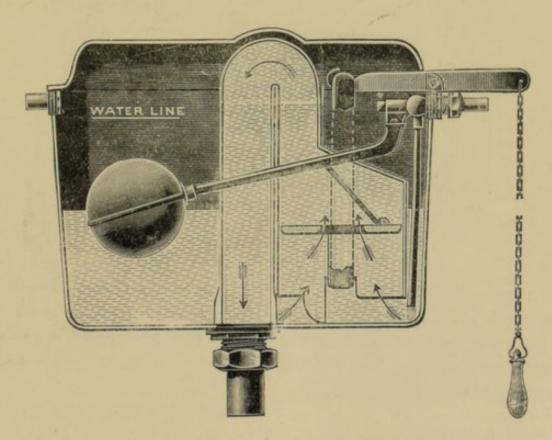
Manufactured by Perrin, Hughes & Co., 23 & 25, Hatton Garden, Liverpool.

DIVISION C .- CLASS II. - Section 3. Water Waste Preventers. (Cont.)

#### Evered's Eveflus Water Waste Preventer.

Bronze Medal, 1896.

To EVERED & Co.



DESCRIPTION.—The water is lifted over the bend of the siphon by means of a disc which fits in the chamber alongside the siphon pipe. As soon as the siphon is started a flap valve opens in the disc to allow the rest of the water to pass.

Sizes.—1 Gallon. 2 Gallons. 3 Gallons.

PRICES.— £1 1s. £1 4s. £1 10s.

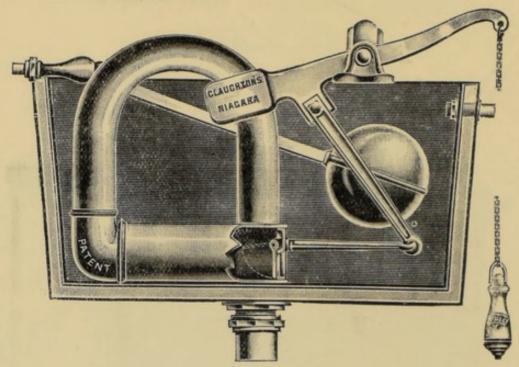
Manufactured by EVERED & Co., LIMITED, Drury Lane, London, W.C.

## DIVISION C.—CLASS II.—Section 3. Water Waste Preventers. (Continued.)

#### The "Niagara" Water Waste Preventer.

Bronze Medal, 1897.

To CLAUGHTON BROS., LIMITED.



DESCRIPTION.—At the bottom of the cistern is a horizontal cylinder connected with the syphon. The pull-chain drives a piston along this cylinder and forces the water over the syphon bend; the piston is provided with a valve opening inwards, which allows the water to pass from the cistern into the syphon.

	2 Gallon.	2½ Gallon.	3 Gallon.
PRICE COMPLETE.	21s.	22s.	23s.
" If lined with 5 lbs. sheet lead	22s. 6d.	23s. 6d.	24s. 6d.
" 61bs. "	24s.	25s.	26s.
If with Cast Iron cover (enamel painte	58.	5s. extra.	
If with Polished Mahogany or Waln	nut		
Tank Panelled		44s.	47s.
If with Polished Oak Tank (natural			
antique)	328.	34s.	37s.

Parts.—Complete set of "Niagara" fittings,  $1\frac{1}{4}$  in. syphon, 10s. 6d.;  $1\frac{1}{2}$  in. syphon 12s.

Manufactured by CLAUGHTON BROS., LIMITED, Sanitary Lead Works, Bramley, Leeds.

DIVISION C.—CLASS II.—Section 4. Flushing and Watering.

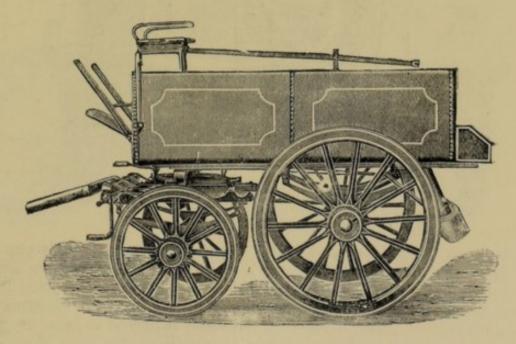
Improved Street Watering Van with Double Distributors and Valves.

Bronze Medals, 1889 and 1890.

Balanced Water Cart.

Bronze Medal, 1892.

TO W. CLEMENS ABELL & Co.



DESCRIPTION.—Constructed with bodies of flanged steel plates, riveted to the iron frame of channel, and Tee Bars, fitted with Double Distributors and Valves for watering the whole or any section of the road. Either of the Valves can be instantly stopped by the driver.

Sizes.—300 Gallons, 350 Gallons, 400 Gallons, and 460 Gallons.

PRICES .- £40,

£41 10s.,

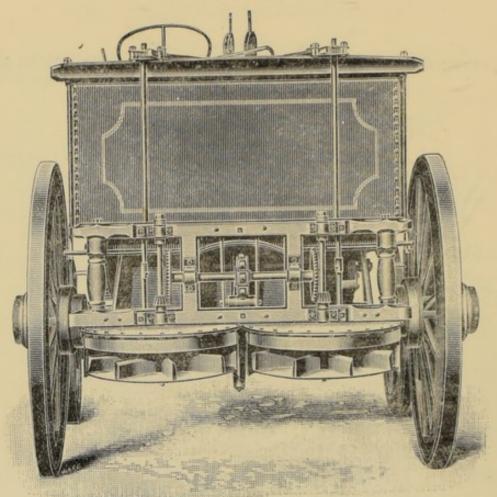
£43,

£45.

Manufactured by The Gloucester Railway Carriage and Wagon Co., Ltd., Gloucester.

DIVISION C .- CLASS II .- Section 4. Flushing and Watering. (Continued.)

New Rotary Watering Van. Bronze Medal, 1898.



Description.—The special feature in this Van is that variations in width of spread are made from the driver's seat by the use of two levers, one for each disc. The valves being in close contact with the discs, their action is instantaneous, both in altering width of spread or shutting off water. When the spread is reduced, the water supply is reduced in proportion to the width, and when passing an article on the road the water can be cut off instantaneously, on one or both sides. The spreading discs are driven by a single chain belt underneath the body of Van, which prevents dirt being thrown on to it by the travelling wheels. Discs can be thrown in and out of gear while the Van is in motion by means of a friction clutch, or they can be fitted with an ordinary clutch if preferred. The gearing frame is cast all in one piece, and is fitted with adjustable bearings and oil boxes. All wearing parts and parts subject to strains are made from malleable iron or crucible steel castings.

Sizes .- 400 and 430 gallon capacity.

PRICES .- £55 and £56.

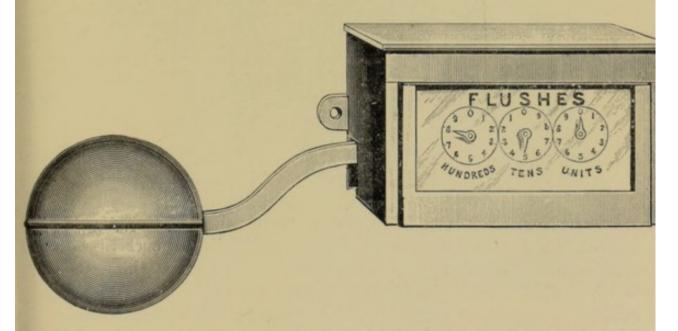
Manufactured by WM. GLOVER & SONS, LTD., Eagle Works, Warwick.

DIVISION C .- CLASS II .- Section 4. Flushing and Watering. (Continued.)

Flush Indicator.

Bronze Medal, 1892.

To WATER CARRIAGE ENGINEERING Co.



Description.—This instrument is constructed so as to record, by the action of a floating ball, exactly the number of flushes given from a flush Tank. It enables a meter to be dispensed with, as the number of flushes recorded, multiplied by the capacity of the cistern in gallons, give the consumption of water.

Size.—(Illustration) Half Full Size.

PRICE.-No. 7, 12s. 6d.

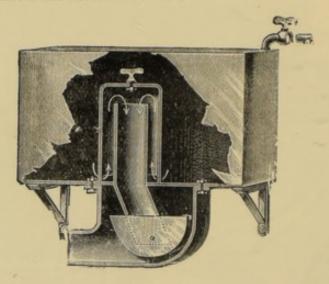
Manufactured by The Water Carriage Engineering Co., Limited, Sheffield.

DIVISION C.-CLASS II.-Section 4. Flushing and Watering. (Continued.)

Automatic Flushing Siphon with Tipping Bucket at Outlet.

Bronze Medal, 1892.

To Water Carriage Engineering Co.



Description.—When the feed water has risen in the tank as high as the bend of the siphon, it runs down the long leg into the tipping bucket, which is placed in the chamber underneath. When it has risen in this tipping bucket to the bottom of the long leg it traps the siphon. In the act of trapping it slightly compresses the air in the pipe, and as a consequence the feed ceases to run down the long leg until the water in the tank has risen sufficiently high to form a head with a pressure sufficient to overcome the air pressure in the siphon. This slight head forces more water down into the tipping bucket, which compresses the air in the siphon still more, and consequently requires a greater head to force more water down. When the tank is filled to the required level the tipping bucket is also filled to its tipping point, and it then cants over and discharges its contents, untrapping the siphon and releasing the compressed air contained in it, the head of water in the tank instantly charging the siphon.

Sizes.—15 Gallons to 200 Gallons.

PRICES.-From £2 10s. to £13.

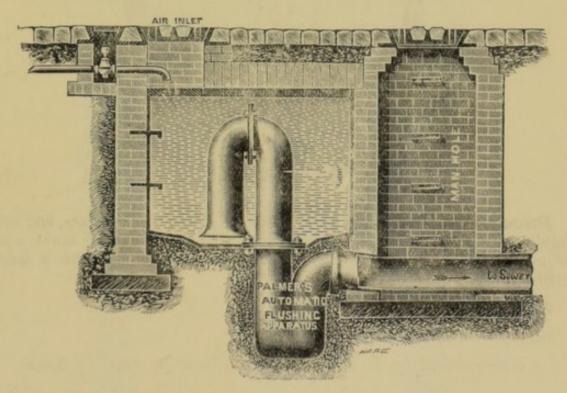
Manufactured by The Water Carriage Engineering Co., Limited, Sheffield.

DIVISION C .- CLASS II .- Section 4. Flushing and Watering. (Continued.)

#### Palmer's Automatic Flushing Siphon.

Bronze Medal, 1892.

To E. R. PALMER.



Sizes.—2 ft. to 36 ft. diameter.

PRICES.—From £2 upwards according to size.

IN PARTS,—Three parts.

Manufactured by E. R. Palmer, Hygiene Works, Beckenham.

The Climax Automatic Flushing Siphon.

Bronze Medal, 1892.

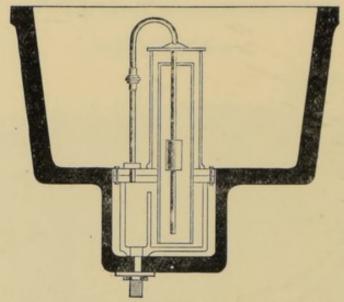
To S. GROSSMITH, Daniel Street, Portsea.

DIVISION C.—CLASS II.—Section 4. Flushing and Watering. (Continued)

#### Automatic Flush Tank.

Bronze Medal, 1899.

To J. DUCKETT & SON, LIMITED.



Description.—This tank, being made in glazed earthenware, and containing only few metal parts, is less corrodible than ordinary tanks made of metal. It works equally well with a mere dribble or with a larger volume of water.

Sizes.—From 1 gallon and upwards.

PRICES.—On application.

Manufactured by J. Duckett & Son, Limited, Burnley, Lanc.

DIVISION C .- CLASS II .- Section 5. Sinks.

#### Yorkshire Salt-Glazed Sink.

Bronze Medal, 1889.

To Joseph Cliff & Sons.

Description.—Made in Salt-Glazed Stoneware in various shapes and sizes.

Size. -24 in.  $\times$  18 in.; 6 in. outside.

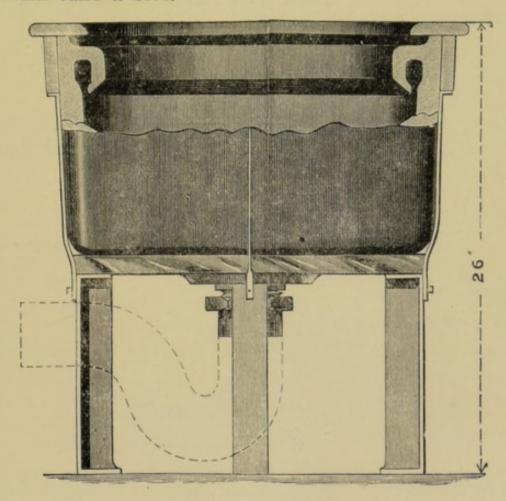
PRICE.-6s. 5d.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

"Cecil" Slop Sink.

Silver Medals, 1889, 1890 and 1894.

To Joseph Cliff & Sons.



DESCRIPTION.—The chief feature in this Sink is the flushing rim which is made in the material and is part of the Sink itself. The Sink is fixed with a lead trap above the level of the floor.

No. 2. No. 1.

Sizes.—18 in. × 18 in. and 22 in. × 22 in. outside.

PRICES .- £1 17s. 6d. and £3 10s.

IN PARTS.—Galvanized Iron Frame and Legs, including Iron Straps and Tie Rods, 15s.; Pitch-pine Top, 15s.; Brass Outlet and Union, 11s. extra per set.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

Enamelled Fire Clay Hospital Sink. Bronze Medal, 1889.

White Enamelled Fire Clay Sink. Bronze Medal, 1890.

White Enamelled Fireclay Sink, without fittings. Bronze Medal, 1897.

To JOSEPH CLIFF & SONS.

Description.—Made in "Imperial" Ware.

Sizes.—20 in. × 16 in.; 13 in. outside.

PRICE.-£1 5s.

Kitchen, Housemaid, Butler's, and other forms are made in same ware.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay
Co., Ltd., Wortley, Leeds.

# White Enamelled Fireclay Sinks without Fittings. Bronze Medal, 1897.

To FARNLEY IRON Co.

DESCRIPTION.—These Sinks are made of porcelain ware.

Sizes .-- Various.

PRICES.—On application.

Manufactured by FARNLEY IRON COMPANY, LIMITED, Farnley, near Leeds.

# White Enamelled Fireclay Sinks. Bronze Medal, 1892.

To Broad & Co.

SIZES AND PRICES.—White Enamel,  $20 \times 15 \times 6\frac{1}{2}$  in. to  $48 \times 24 \times 8$  in. outside, 10s. to £2 15s.;  $21 \times 15 \times 8\frac{1}{2}$  in. to  $48 \times 24 \times 12$  in. outside, 14s. to £3 5s. Angle Sinks, 2 ft., 10s. 2 ft. 4 in., 12s. 6d. Cane glazed, 2 ft., 6s., 2 ft. 4 in., 7s. 6d.

Manufactured by Broad & Co., South Wharf, Paddington.

\* Indurated Wood Fibre Sinks.

Bronze Medal, 1892.

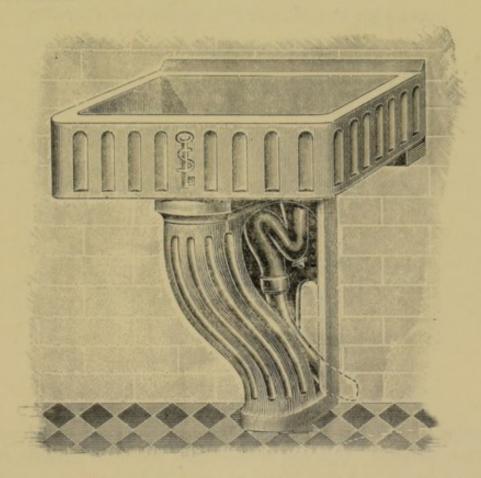
To MILNE, SONS & MACFIE.

<sup>\*</sup> See Note on Page 20.

Cullis & Beavan's Combined Sink-standard and Waste.

Bronze Medal, 1899.

To H. J. HOLT.



DESCRIPTION.—This, as the name implies, provides effective means for the double purpose of supporting the kitchen or housemaid's sink or a lavatory basin, and at the same time within the hollow standard conveying the waste pipe; it is so constructed that the pipe can traverse the entire length of the standard and thus be adjusted to the outlet of any sink.

Sizes.—Height, 22 in.; width, 7 in.; depth, back to front at top, 15½ in.

PRICES. — Standard only.
Cane: 8s.

White:

8s. 10s. 6d. Standard with waste pipe and bend. 12s. 14s. 6d. Standard with waste pipe and galvanised trap complete.

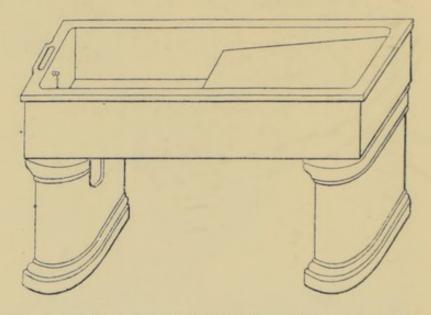
19s.
21s. 6d.

Manufactured by Skey & Co., Tamworth.

Ideal Sink and Supports in Enamelled Fire-clay.

Bronze Medal, 1894.

TO THOMAS W. TWYFORD.



Description.—White enamelled Fire-clay Sink, supported on white enamelled pedestals. One end of sink deep, the other shallow, for wood drainer.

Sizes.— $36 \times 21 \times 9\frac{1}{2}$  in.  $48 \times 21 \times 9\frac{1}{2}$  in. Back 16 in. high.

PRICES.—With Taps, Plug, and Washer, £5 6s. £6 12s. 6d.

Manufactured by TWYFORDS, LIMITED, "Cliffe Vale" Pottery, Hanley.

#### Ideal Sink in Two Compartments.

Bronze Medal, 1898.

To TWYFORD'S, LTD.

DESCRIPTION.—The Sink is made in glazed fireclay, with division forming two separate Sinks, on one of which provision is made for supporting wood drainer. Each compartment has a wooden rim on the front edge, and a standing overflow moulded in the earthenware, four taps, and two plugs and washers, and includes loose wood drainer, and patent inserta wood rim on each Sink.

Sizes.—
$$36 \times 21 \times 9\frac{1}{2}$$
-in.  $48 \times 21 \times 9\frac{1}{2}$ -in.   
(Prices.— £7 0 6 £8 7 0

Manufactured by Twyford's, Ltd., Hanley, Staffordshire.

#### Triple Vegetable Sink.

Bronze Medal, 1898.

To TWYFORDS, LTD.

Description.—Made in glazed ware, with standing waste moulded on the back.

Sizes .- 5 ft.

PRICES .- On application.

Manufactured by TWYFORDS, LTD., Hanley, Staffs.

#### Imperial Porcelain Kitchen and Scullery Sinks.

Bronze Medal, 1894.

To Joseph Cliff & Sons.

Description.—These are made in white enamelled "Imperial" porcelain ware

Sizes.—
$$24 \times 18 \times 6$$
.
  $36 \times 20 \times 7$ .
  $42 \times 24 \times 8\frac{1}{4}$ .

  $30 \times 20 \times 7$ .
  $36 \times 24 \times 7$ .
  $48 \times 24 \times 8\frac{1}{2}$ .

 Prices.— £1 0 0
 £1 5 0
 £2 5 0

 £1 2 6
 £1 10 0
 £2 15 0

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Lld., Wortley, Leeds.

#### White Enamelled Fireclay Sinks.

Bronze Medal, 1897.

To LEEDS FIRECLAY Co., LIMITED.

Description.—Sizes, &c., as above.

Manufactured by The LEEDS FIRECLAY Co., LIMITED.

#### White Enamelled Fireclay Sinks.

Bronze Medal, 1896.

To W. C. GIBSON & Co., LIMITED.

SIZES.—17  $\times$  13  $\times$  5 in. to 60  $\times$  24  $\times$  6 in.; 16  $\times$  16 in. to 28  $\times$  28 in.; and 18  $\times$  15  $\times$  8 in. to 48  $\times$  24  $\times$  12 in.

PRICES-On application.

Manufactured by W. C. Gibson & Co., Limited, Scotswood Fireclay Works, Scotswood, Newcastle-on-Tyne.

#### Cane Glazed Sinks.

Bronze Medal, 1896.

To JOHN CARR & SONS.

DESCRIPTION.—These are made of finely ground, highly tempered, semivitreous Clay. The Glaze is applied direct on to the Clay, and the burning completed at one operation.

Sizes.—Overflow Pattern:  $18 \text{ in.} \times 15 \text{ in.} \times 8 \text{ in.}$  depth, to  $48 \text{ in.} \times 24 \text{ in.}$   $\times 12 \text{ in.}$  depth. Ordinary Pattern:  $24 \text{ in.} \times 16 \text{ in.} \times 7 \text{ in.}$  depth, to  $48 \text{ in.} \times 24 \text{ in.} \times 7 \text{ in.}$  depth. London Pattern:  $18 \text{ in.} \times 14 \text{ in.} \times 5 \text{ in.}$ , to  $48 \text{ in.} \times 24 \text{ in.} \times 7 \text{ in.}$ 

PRICES.—Overflow Pattern: 7s. 8d. to £2 10s. each. Ordinary Pattern: 8s. 4d. to £1 7s. 8d. each. London Pattern: from 4s 8d. to 27s.

Subject to trade discounts.

Manufactured by JOHN CARR & SONS, Low Lights, North Shields.

#### White Glazed Sinks.

Bronze Medal, 1896.

To WM. HARRIMAN & Co.

Description.—Made in fireclay, covered with an imperishable white glaze, suitable for use in sculleries and kitchens.

Size.—From 18 to 48 in. long, and varying in depth from 5 to 12 in.

PRICE.-From 5s. 4d. to 69s. each.

Manufactured by WM. HARRIMAN & Co., LIMITED, Newcastle-on-Tyne.

Salt Glazed Sinks.

Bronze Medal, 1896.

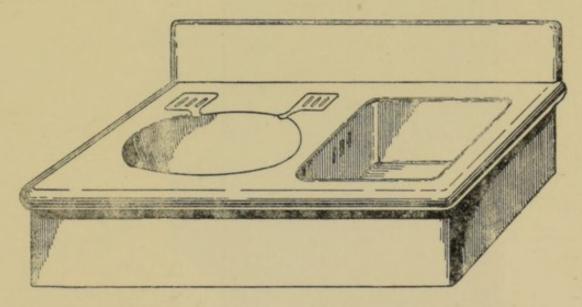
To WM. INGHAM & SONS.

Manufactured by WM. INGHAM & SONS, Wortley, Leeds.

#### Combined Sink and Lavatory.

Bronze Medal, 1898.

To FARRER, BARBER & Co.



DESCRIPTION .- Made in white or cane glazed heavy fireclay.

SIZES AND PRICES .-

 $36 \times 21 \times 10$ , white-glazed, £5, with taps and plugs.

 $42 \times 21 \times 10$ , , £5 15s. , , ,

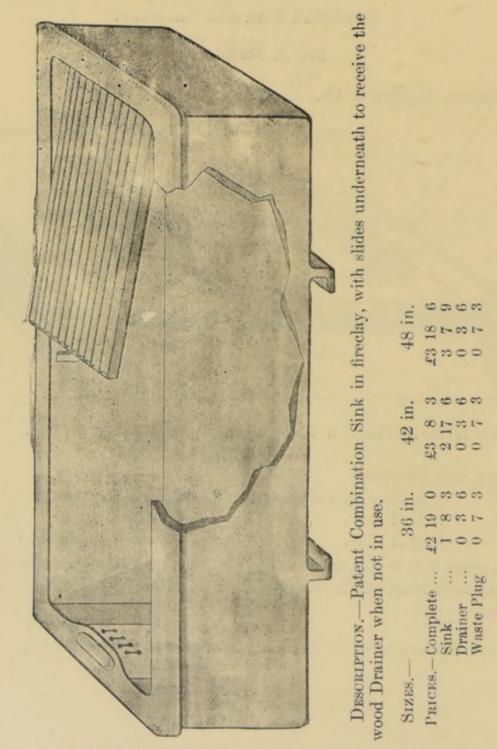
 $48 \times 21 \times 10$ , " £7 2s. " "

The prices include sink and lavatory combined, in highly glazed fireclay, onecold tap to lavatory, and rubber plugs, with brass washer and chain to lavatory and sink.

Manufactured by Farrer, Barber & Co., Smethwick.

# Combination Fireclay Sink with Wash Board. Bronze Medal, 1899.

To G. Howson & Sons, Limited.

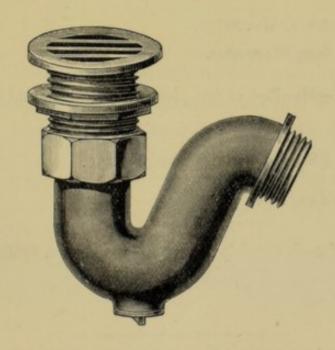


Manufactured by George Howson & Sons, Limited, Hanley, Staffs.

#### Sink Waste Fittings.

Bronze Medal, 1897.

To J. MILNE & SON, LIMITED.



Description.—Cast brass slop sink waste with fly nut, union and trap screwed for iron pipe.

Sizes.—  $1\frac{1}{2}$  in. 2 in. Diameter over Flange,  $3\frac{1}{2}$  in.  $3\frac{7}{8}$  in. , Screw,  $2\frac{1}{4}$  in.  $2\frac{5}{8}$  in.

PRICE.—11s. 6d. and 15s. each.

Manufactured by J. MILNE & Son, Edinburgh; and 60, Holborn Viaduct, E.C.

#### DIVISION C -CLASS II. - Section 6. Baths and Lavatories.

#### Rufford's Porcelain Bath.

Silver Medals, 1889.

To R. W. Tomlinson, Worcester.

To. J. WARD & SON, Worcester.

Description.—Moulded in one piece of Porcelain, and glazed inside and out.

Size.—From 4 ft. 8 in. to 68 in. long outside.

PRICES .- From £3 to £16.

Manufactured by Rufford & Co., Stourbridge.

\* Imperial Spray Bath.

Bronze Medal, 1890.

To J. SMEATON, SON & Co.

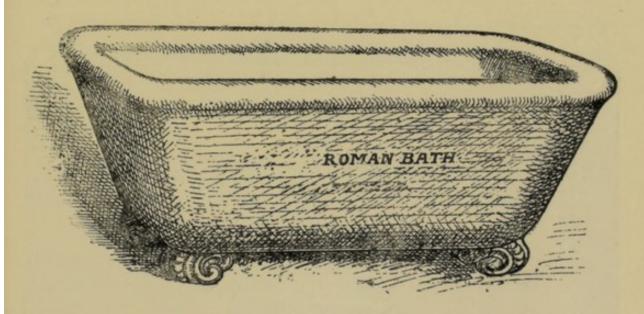
\* See Note on Page 20.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

Roman Bath.

Silver Medal, 1889.

To Joseph Cliff & Sons.



Description.—These Baths are made of Imperial Porcelain Ware, with flat unglazed edge, for enclosing in wood casing, or with glazed roll edge and outside left plain for decorating without any enclosing woodwork.

Sizes,-5 ft. 3 in. and 6 ft. long.

PRICES .- £8 and £9 10s. each at Works; with glazed roll, £10 5s. and £11 15s. each.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

DIVISION C.-CLASS II.-Section 6. Baths and Lavatories. (Continued.)

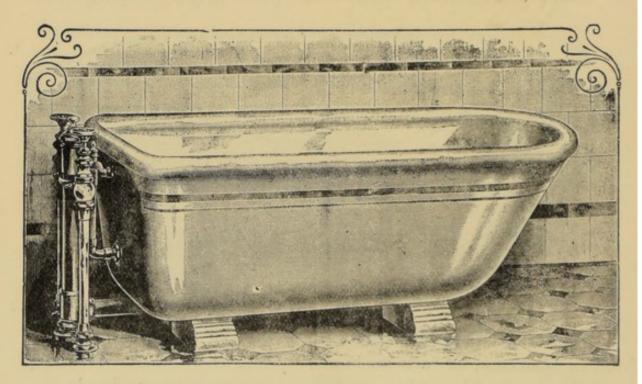
Imperial Porcelain Bath. Silver Medals, 1889, 1890 and 1894.

> The Nursery Bath. Silver Medal, 1889.

White Enamelled Fireclay Bath, without fittings.

Bronze Medal, 1897.

To Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd.



Description.—These Baths are made of Imperial Porcelain Ware, with flat unglazed edge, for enclosing in wood casing, or with glazed roll edge and outside left plain for decorating without any enclosing woodwork.

Sizes.—Taper or Parallel Bath, 5 ft., 5 ft. 7 in., and 6 ft. long. PRICES.—£7 10s., £8, and £9 10s.; with glazed roll, £9 15s., £10 5s., and £11 15s.

Size.—Nursery Bath, 4 ft. 6 in. long.

PRICES.-£6; with glazed roll, £8 5s. each.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

# White Enamelled Fireclay Bath without Fittings. Bronze Medal, 1897.

To FARNLEY IRON Co.

DESCRIPTION.—These Baths are made of porcelain, glazed inside only or with glazed roll on the top.

Sizes.—Small, 5 ft. long; Ordinary, 5 ft. 6 in.; Large, 6 ft.

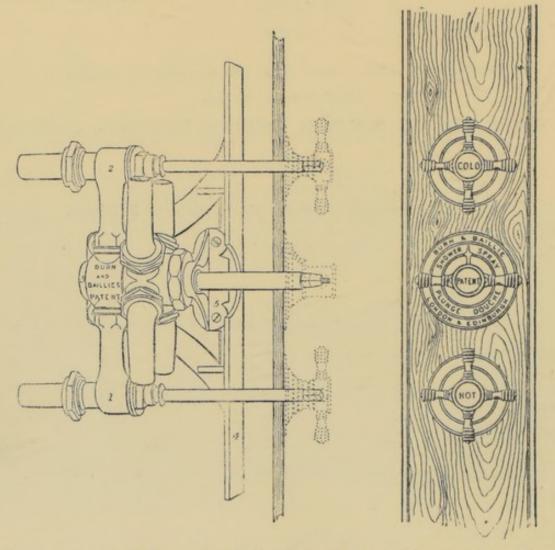
PRICES.—On application.

Manufactured by FARNLEY IRON Co., LIMITED, Farnley, Leeds.

DIVISION C.-CLASS II.-Section 6. Baths and Lavatories. (Continued.)

Combination Bath. Bronze Medal, 1890.

TO BURN & BAILLIE.



Description.—Only one handle is required in addition to the ordinary hot and cold water taps. When the temperature of the water has been regulated, by means of this handle, plunge, spray, shower, wave or douche may be obtained by simply turning the indicator to either on the dial plate. Enamelled iron canopy, combination supply apparatus with four outlets for plunge, shower, spray, and wave or douche, with unions for hot and cold services.

Size.-5 ft. 9 in. long, inside.

PRICE.-£16 15s.

Manufactured by Burn Bros., 23, Charing Cross, S.W.

DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Continued.)

### Hot and Cold Water Mixer, with Indicating Mixer.

Bronze Medal, 1896.

To G. JENNINGS.

Manufactured by George Jennings, Ltd., Lambeth Palace Road, S.E.

#### Shanks' Enamelled Iron Bath.

Bronze Medal, 1892.

To Portsmouth Water Fittings Co.

Description.—Fitted with hot, cold, and waste fittings, soap dishes, standing waste and overflow in one piece with the Bath. Adjustable trap. With rolled edge, ornamental feet, and outside decorations. To stand without wood enclosure.

SIZE .- 5 ft. 6 in.

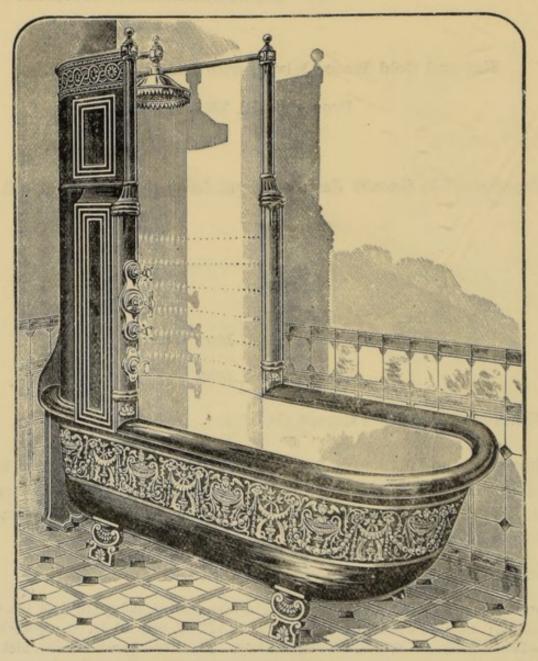
PRICE.—Japanned, £3 9s. 6d. and £4; metallic enamelled, 2nd quality, £4 15s. 6d. and £5 8s.; metallic enamelled, 1st quality, £5 12s. 6d. and £6 5s. 0d.; porcelain enamelled, £7 4s. and £7 17s. 6d. respectively. Taper and parallel sided, nickel-plated fittings, 3s. extra; trap above floor line, 1s. 6d. extra.

Manufactured by Shanks & Co., Barrhead, N.B.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

### Shanks' Independent Spray and Plunge Bath. Bronze Medal, 1892.

To Portsmouth Water Fittings Co.



Description.—Plunge is of cast-iron, with waste and overflow. Spray of zinc or copper. Fittings are the Eureka Fittings. Plunge, Spray, and Shower, with rolled edge and ornamented outside, to stand without enclosure. Fitted with Circular Spray.

PRICE.—Independent Bath, with Cast-Iron Plunge and Plate Zinc Spray, Metallic Enamelled inside and Japanned outside, with Nickel-Plated Shower and Tube, and Eureka Fittings, £27 10s.; with Copper Spray, £35.

Manufactured by Shanks & Co., Barrhead, N.B.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

#### Jones' Combination Bath.

Bronze Medal, 1898.

TO PARKER, WINDER & ACHURCH, LTD.

DESCRIPTION.—The Bath, made in cast iron, with zinc sink, is a combination of bath, sink and dolly tub, all dirty water being run off by outlets. It has a cover and can be used as a table.

Size.—3 ft. 6 in. long, 2 ft. wide, 2 ft. 5 in. high.

PRICE.-£4 5s.

Manufactured by Alldays, Onions, Ltd., Sparkbrook, Birmingham.

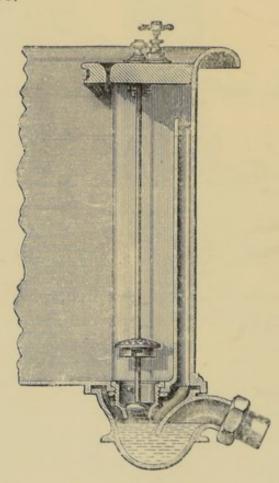
DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Cont.)

"Fin de Siecle" Bath with Modern Waste.

Bronze Medal, 1896.

"Fin de Siecle" Bath. Silver Medal, 1897.

To SHANKS & Co.



Description.—The standing waste and overflow pipe is in an open recess at the end of the bath, in which the valve rod works. The grating is of large size, and is fitted above the valve with a slotted or bayonet catch arrangement so that it can be removed for cleansing purposes. The overflow is cast on behind the waste recess, and enters the waste above the seal of trap. Each time the taps are turned on a nozzle throws jet of water down the sides of the overflow.

Sizes.— 5 ft. 6 in. 6 ft. 6 in. 7 ft.

Prices.—Metallic Enamelled £8 12s. 6d. £9 2s. 6d. £9 12s. 6d.

Porcelain Enamelled £10 10s. £11. £11 10s.

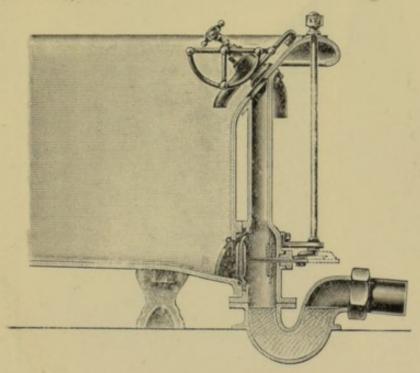
Manufactured by Shanks & Co., Barrhead, N.B.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

Perfecto Bath.

Bronze Medal, 1898.

To SHANKS & Co., LTD.



Description.—The fittings end of the Bath is sloped, and the soap plate removed from any contact therewith, so that both are accessible for cleaning purposes, and any chance of dirt gathering between underside of plate and end of bath is obviated. The overflow of cast iron, enamelled inside, is wide and straight, and open for cleaning purposes. The waste valve is  $2\frac{1}{2}$  ins. dia., and is actuated by a new and simple mechanism. There is no fouling surface between the Bath and the waste valve. The grating, of nickel-plated brass, is hinged, and may be lifted for clearing the waste. The trap is of cast iron, glass enamelled, and is full way  $2\frac{1}{2}$  dia., The roll rim is returned under, giving a round surface. The bath itself is of cast iron, white porcelain enamelled inside and on roll, with white enamel outside.

Sizes.—Taper: length inside, 5 ft. 6 in.; overall, 6 ft.  $6\frac{1}{2}$  in.; width inside at scoop end, 2 ft. 2 in. Parallel: length inside, 5 ft. 6 in.; overall, 6 ft.  $6\frac{1}{2}$  in.; width inside, 2 ft. 2 in.

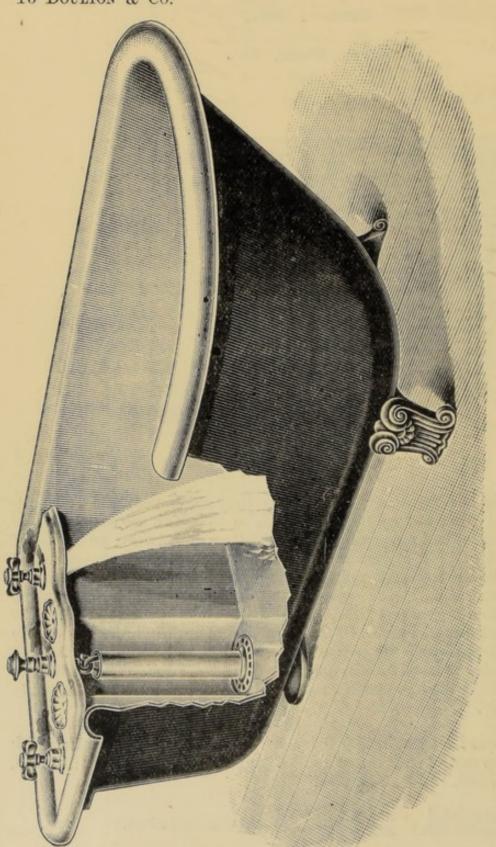
PRICES.—Taper-sided £11 15s. to £15 Parallel-sided £12 5s. to £16 according to fittings.

Manufactured by Shanks & Co., Ltd., Tubal Works, Barrhead.

#### DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Cont.)

#### Vitreous Porcelain Enamelled Bath. Bronze Medal, 1899.

To Doulton & Co.



DESCRIPTION.—By an entirely new process white and coloured vitreous enamels are applied to unprepared cast iron baths. By the nature of the process they become an integral part of the iron castings. The surfaces of the bath are cleanly and durable. The same enamel can be applied to other articles, such as lavatories, closets, sinks, etc. ::: 111

PRICES.—No. 272v.—5 ft. 6 in. parallel cast iron, with 4 in. rolled edge, hot, cold, and waste brass fittings on pottery plate
No. 273v.—Ditto, ditto, taper
No. 274v.—Ditto, ditto taper
No. 275v.—Ditto, ditto taper

Manufactured by Messrs. Doulton & Co., Lambeth, London, S.E.

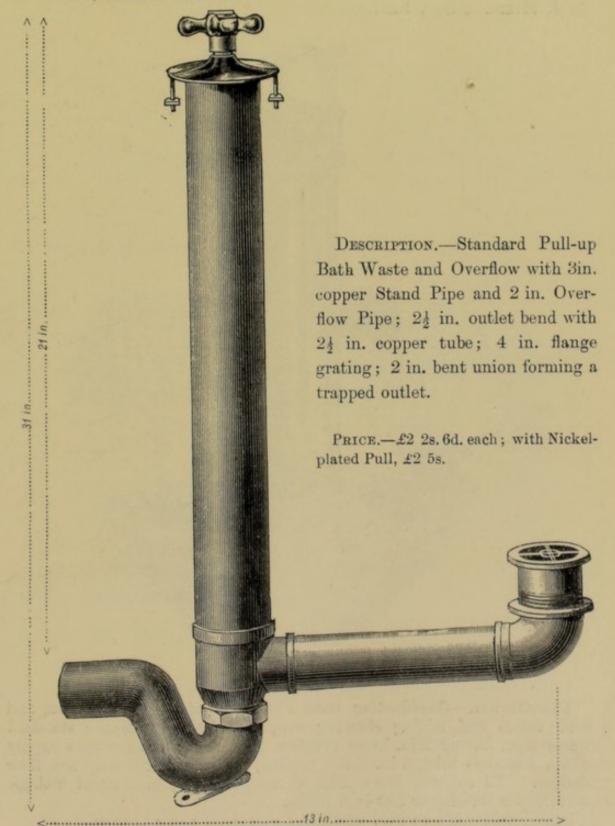
Nickel-plated or white metal fittings, 5s. 6d.

DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Continued.)

Standing Waste and Overflow, with Trapping Bend for Bath.

Bronze Medal, 1892.

To MILNE, SONS & MACFIE.



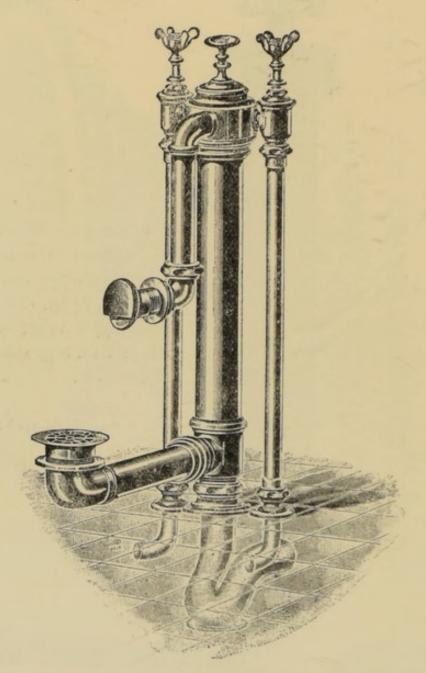
Manufactured by James Milne & Son, Limited, Milton House Works, Edinburgh; 60, Holborn Viaduct, London; 48, Wellington Street, Leeds; and 111, St. Vincent Street, Glasgow

DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Continued.)

Upright Combination Bath Fittings with Large Outlets.

Bronze Medal, 1897.

To J. MILNE & SON, LIMITED.



Description.—Combination Bath Fitting, consisting of 1 in. hot and cold valves and mixing chamber supported by 3 in. copper standard waste pipe, having 2 in. inner overflow pipe, solid drawn copper supply pipes, steamless inlet, 5 in. outlet grating, 2 in. cast brass trap and floor flanges. All exposed parts polished, copper pipes, gun metal fittings. Suitable for fire-clay or cast-iron Baths.

PRICE.—Gun metal, £7 10s.; Nickel-plated all above floor line, £8 15s.

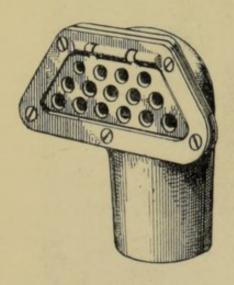
Manufactured by J. Milne & Son, Edinburgh; & 60, Holborn Viaduct, E.C.

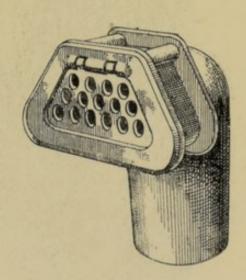
DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

Hinged Grating for Overflow of Bath.

Bronze Medal, 1890.

To BURN & BAILLIE.





DESCRIPTION.—The grating of overflow is hinged so as to permit of the overflow pipe being thoroughly cleansed by means of a brush.

PRICES.—For Iron Bath, 12s.; For Fireclay Bath, 14s. 6d.

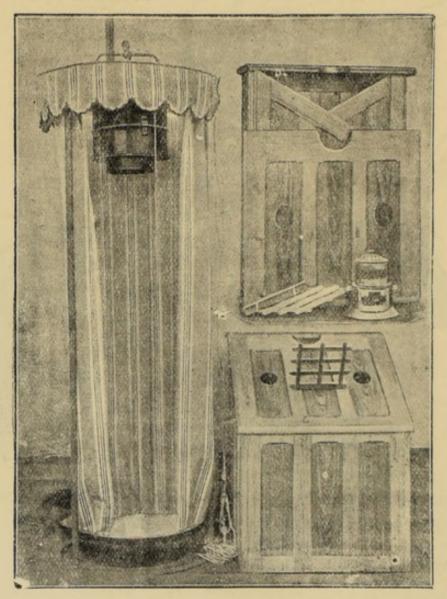
Manufactured by Burn Brothers, 23, Charing Cross, S.W.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

#### Domestic Turkish Bath.

Bronze Medal, 1894.

To REV. W. S. WALFORD.



DESCRIPTION.—Consists of a Sweating Chamber, which can be folded up after use, and a graduated hot and cold Shower Bath.

Size.—Space complete, 6 ft. 6 in. square × 9 ft. 6 in. high.

PRICE.-£12 12s.

Parts.-Two parts, £6 6s. each.

Manufactured by A. Blake & Son, Dollingbro', Wickham Market.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued)

#### Lavatory Basin and Fittings.

Bronze Medal, 1890.

To J. TYLOR & SONS, LIMITED.

Description.—The Supply and Waste-Valves are fixed to it; by unscrewing the Cap of the Waste Pull-up the Overflow and Waste-Valves can be lifted out for cleaning. There is no metal in the Basin.

Sizes.—Basin, 14 in.  $\times$  11 in.; 17 in.  $\times$  12 in.;  $18\frac{1}{2}$  in.  $\times$  13 in.: 20 in.  $\times$  14 in

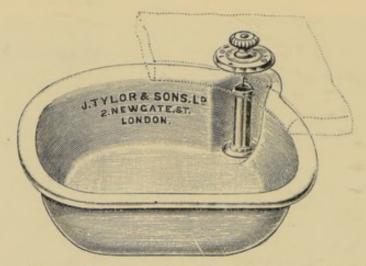
PRICES.—With Valves, £2 15s., £3 5s. 6d, £3 14s., and £4 4s. 6d., with Skirting, and £2 6s. 6d., £2 15s., £2 18s., and £3 6s. 6d. without Skirting. Plated Fittings, 5s. 4d. extra.

Manufactured by J. TYLOR & SONS, LIMITED, 2, Newgate Street, E.C.

DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Continued.)

## Lavatory with Lifting Standing Waste Outlet. Bronze Medal, 1892.

To J. TYLOR & SONS, LIMITED.



DESCRIPTION.—The Waste and Overflow Valve is placed in a recess in the basin, which allows of the valves being cleaned, and leaves the whole area of the basin available for use.

Sizes.—Four Sizes varying from 14 in. × 11 in. to 20 in. × 14 in.

PRICES.—From £1 12s. 6d. to £2 18s. 6d. Plated Mountings, 4s. 9d. extra.

Manufactured by J. Tylor & Sons, Limited, 2, Newgate Street, E.C.; and Belle Isle, York Road, N.

Imperial Lavatory.
Bronze Medal, 1889.

To J. WARD & SON.

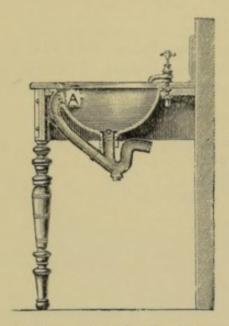
DESCRIPTION.—It has a vertical stand-pipe, with waste and overflow made in one piece with the basin and table-top, and containing tubular plug, which acts as waste valve and overflow. The channels for the inlet of water are formed in the earthenware.

PRICE.—No. 90A Basin,  $24\frac{1}{2} \times 18\frac{1}{4}$  in., with Bowl,  $18 \times 12$  in., £3 8s. , 91A ,,  $27\frac{1}{2} \times 20$  , ,  $20\frac{1}{4} \times 13\frac{1}{2}$  ,, £3 15s. Manufactured by Shanks & Co., Barrhead, N.B. DIVISION C.—CLASS II. - Section 6. Baths and Lavatories. (Continued.)

Lavatory with Overflow which can be cleansed.

Bronze Medal, 1890.

TO BURN & BAILLIE.



Description.—The movable grating A affords easy access to the overflow pipe, which may be cleaned out down to the brass trap, which is arranged with the overflow pipe entering directly opposite the outlet, so that a free passage, without check, is provided for overflow water. The waste grating is made to lift out, and there is a brass cleansing screw in the bottom of the trap beyond.

SIZE AND PRICE.—Lavatory Basin, 14 ins. diameter inside, complete, and ready for fixing, from £3 7s. 6d. each.

Manufactured by Burn Brothers, 23 & 24, Charing Cross, S.W.

### Cabinet Lavatory Stand. Bronze Medal, 1892.

To G. JENNINGS.

Description.—The basin is square at back, rounded in front. Direct delivery of the supply over the edge of basin without projection, concealed overflow, earthenware outlet arm, removable discharge plug, and grating.

PRICES.—Rectangular, from £3 7s. 6d.; Angular, from £3 5s.

Manufactured by G. Jennings, Ltd., Lambeth Palace Road, London, S.E.

DIVISION C.—CLASS II.—Section 6. Baths and Lavatories. (Continued.)

## Combined "CV" and Athena Lavatory Basin. Bronze Medal, 1894.

To THOMAS W. TWYFORD.

Description.—A Lavatory Basin with "C V" Improved Standing Waste and Overflow, the chief feature of which is its being easily taken out and cleaned. Supported on an "Athena" Cast Iron Stand.

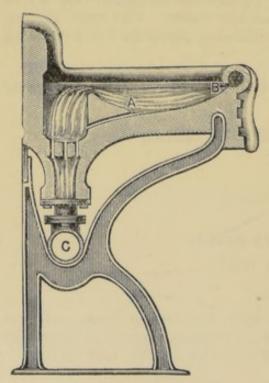
Sizes.—Various sizes and designs.

PRICES.—Including Towel Rail, Shelf, and Mirror, £8 14s. (White or Ivory Basin). Porcelain Basin, £12.

Manufactured by TWYFORDS, LTD., Cliffe Vale Pottery, Hanley.

## Instanter Lavatory with Running Water. Bronze Medal, 1894.

To SHANKS & Co.



PRICE. - £2 12s. 6d. per Basin.

Description.—The basins are fitted in ranges and are made of enamelled fire-clay. A flushing-pipe B with a number of jets is formed in front of the basins, and extends from end to end of the range. Water flows through this pipe from one single supply tap, and gives a supply of running water in all the basins A, which overflows into the waste C at the back. All the basins can be controlled by one supply tap.

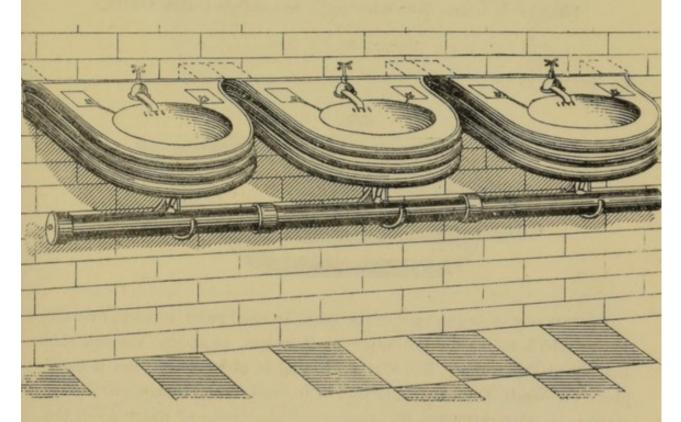
Manufactured by Shanks & Co., Tubal Works, Barrhead, N.B.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Cont.)

#### Corbelled Glazed Lavatory Basin.

Bronze Medal, 1896.

To Bowes Scott & Western, Limited.



Description.—Made of heavy fireclay slabs, with lugs for building into wall, concealed overflows, ½-in. brass screw-down taps, brass careless plugs, painted cast-iron brackets, with adjustable support for waste pipe.

SIZES AND PRICES.—Size of Slab, 18 in.  $\times$  18 in.; 11 in. diameter Basin (for Schools). With Salt Glazed Slab, £1 12s. 6d.; Buff Glazed Slab, £2 1s.; White Glazed Slab, £2 9s. per Basin. Also made with Basins 13 in.  $\times$  11 in. and 16 in.  $\times$  12 in.

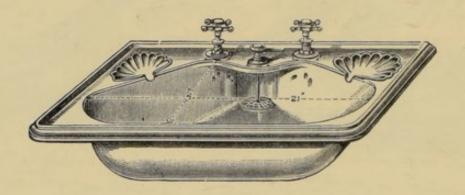
Manufactured by Bowes Scott & Western, Limited, Broadway Chambers, Westminster, London, S.W.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

Shanks' Modern Lavatory with accessible quick waste.

Bronze Medal, 1894.

To SHANKS & Co.



Description.—At the back of the Basin an open recess is made, over the top of which there is a projection in Porcelain, as shewn, through this the Waste-Pull works. The Outlet Grating is of large size, and is fitted above the Waste Valve with a slotted or bayonet catch arrangement. Two small orifices are arranged for sending a little stream of water down the Overflow, other two jets impinge upon the grating; while the other perforations introduce the water direct to the Basin. The Taps are fitted into a special recess made for them in the Basin.

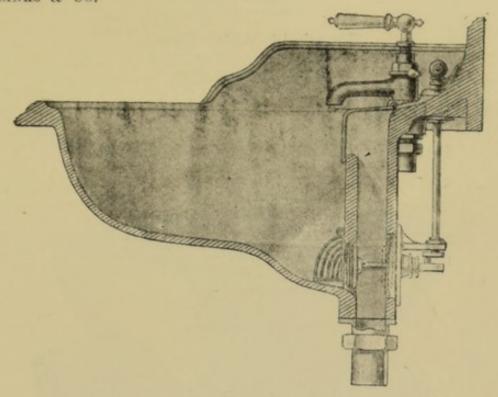
PRICES.-From £3 10s. to £5 3s.

Manufactured by Shanks & Co., Tubal Works, Barrhead, N.B.

DIVISION C .- CLASS II .- Section 6. Baths and Lavatories. (Continued.)

Perfecto Lavatory. Bronze Medal, 1898.

To SHANKS & Co.



Description.—The overflow is large and straight, and being covered with a hinged nickel-plated grating, is accessible for cleaning. The waste valve seating is made in the earthenware, and the valve, a soft rubber disc. The valve is opened or shut by a turn of the lever handle on top of lavatory. The discharge orifice is covered with a hinged nickel-plated brass grating, for accessibility. The lavatories are made in vitro-porcelain, which is non-absorbent and non-crazing, being vitrified throughout.

Sizes.—Table Top,  $28\frac{1}{2}$  in.  $\times$  23 in.; Basin,  $20\frac{1}{2}$  in.  $\times$   $13\frac{1}{2}$  in.

PRICES.—From £5 18s. to £11 6s. 6d.

Manufactured by Shanks & Co., Ltd., Tubal Works, Barrhead.

#### Shampoo and Douche. Bronze Medal, 1890.

To R. Holbrook.

Description.—Consists of a Stand and Spreader, with India Rubber Pumping Arrangement.

PRICE.-10s. 6d., in Box.

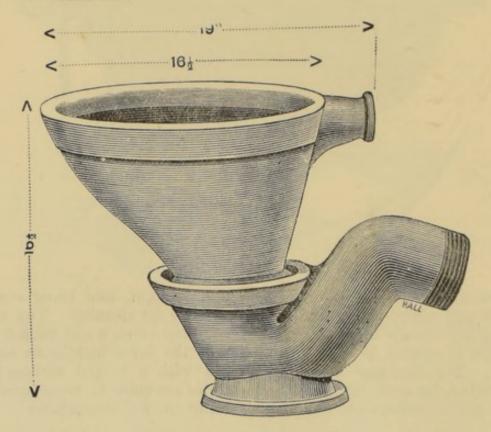
Manufactured by Spong & Co., High Holborn, London, W.C.

#### DIVISION C .- CLASS II .- Section 7. Water Closets.

#### Household Water Closet.

Bronze Medal, 1889.

To R. W. Tomlinson.



DESCRIPTION.—The Closet and Trap are made separately in earthenware. The Basin has a flushing rim. The water stands in the Trap, not in the Basin.

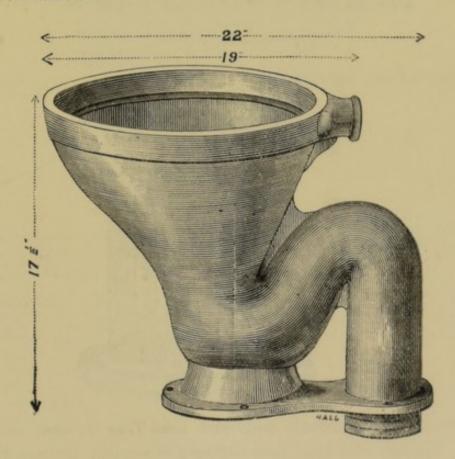
PRICES.—White Basin and white Trap, 12s. 3d.; white Basin (printed) and white Trap, 14s. 9d.; white Basin (gold lines) and white Trap, 18s.; Traps with Ventilating Pipe, 9d. extra.

Manufactured by Sharpe Bros. & Co., Swadlincote Potteries; London Office, 76, Finsbury Pavement, E.C.

Burton Water Closet.

Bronze Medal, 1889.

To R. W. Tomlinson.



DESCRIPTION.—The Closet and Trap are made in one piece of earthenware with Flushing-rim, and Trap above Floor-line.

PRICES.—Cane and White, 18s. 9d.; Cane and Printed, £1 2s. 6d.; White, £1 4s. 9d.; White and Printed, £1 8s. 9d.; White and Gold, £1 13s.

Manufactured by Sharpe Bros. & Co., Swadlincote, Burton-on-Trent.

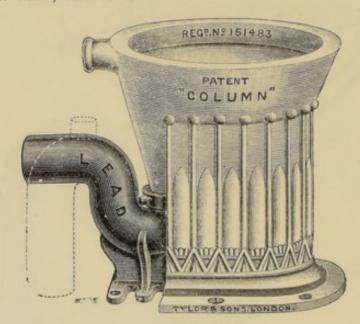
Column Water Closet.

Bronze Medal, 1890.

Column Closet and Slop-Sink Combined.

Bronze Medal, 1894.

To J. TYLOR & SONS, LIMITED.



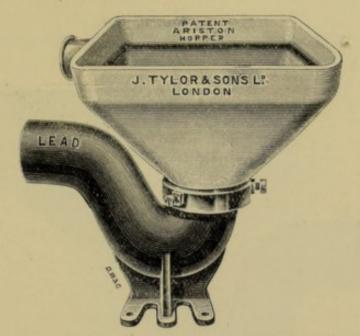
DESCRIPTION.— This Closet is made with Lead Trap to shoot either out or down. The use of a Lead Trap enables a wiped-joint between the trap and the soil-pipe to be well made. The Lead Trap is joined to the earthenware basin by a brass collar, as in the ordinary Valve closet.

PRICES.—From £2 1s. 6d. to £2 15s. 6d.

Manufactured by J. TYLOR & SONS, LIMITED, 2, Newgate Street London, E.C.

The "Ariston" Slop-Sink Water Closet. Silver Medal, 1890.

To J. TYLOR & SONS, LIMITED.



Description.—Square Earthenware Basin with Flushing Rim; separate Reversible Lead Trap, to enable wiped-joint to be made with soil pipe; all fixed above floor line.

Sizes.—Top of basin (outside measure), 14 in.  $\times$  16 in.; Outlet (inside measure),  $3\frac{1}{2}$  in. Depth of basin, 10 in.; Total height of top of basin above floor when fixed, 17 in.

PRICE OF CLOSET .- White, £2 9s.

Manufactured by J. TYLOR & SONS, LTD., 2, Newgate Street, London, E.C.

#### Shanks' Tubal Wash-Out Closet. Bronze Medal, 1889.

To J. WARD & SON.

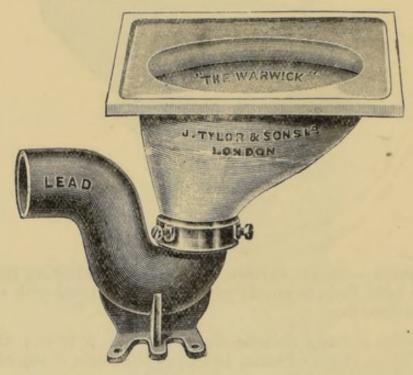
Sizes.—Top of Basin, outside measure, 2 ft.; Outlet, inside measure  $3\frac{1}{2}$  in.; Depth of Basin, 7 in.; Total height of top of Basin above floor when fixed,  $17\frac{1}{2}$  in.

PRICES.—Fine Earthenware, White, £2 2s. 6d.; Printed, £2 14s.; Strong Fireclay, White Enamelled inside and Buff Glazed outside, £1 16s. 6d.

Manufactured by Shanks & Co., Barrhead, N.B.

# Warwick Combined Slop Sink and W.C. with Lead Trap. Bronze Medal, 1892.

To J. TYLOR & SONS, LIMITED.



DESCRIPTION.—This Slop Sink is made of white earthenware, with lead trap to shoot either out or down. The lead trap is joined to the earthenware basin by a simple brass collar and red lead or putty joint, as in an ordinary valve closet. This joint between earthenware and metal is above the trap, and the whole is above the level of the floor. The water stands higher than the joint between closet and trap.

Size.—One size only.

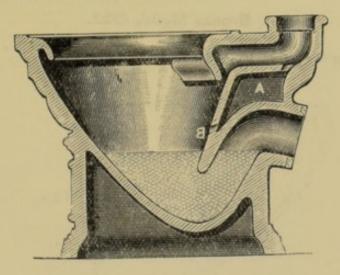
PRICE.-£1 18s.

Manufactured by J. Tylor & Sons, Limited, 2, Newgate Street, E.C.: and Belle Isle, York Roal, N.

Shanks' Citizen Combined W.C. and Slop Sink with "P" Trap.

Bronze Medal, 1892.

To Portsmouth Water Fittings Co.



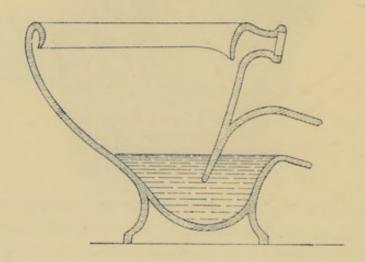
Description.—The Basin and Trap are so constructed that a large surface and depth of water is secured in the basin and trap. The special formation and sweep of the trap render it washed out by the flush of water, which, by means of the spreader or fan, washes the basin and falls with force in the centre. To prevent the trap remaining empty if siphoned, a service box is constructed, which catches part of the flush, and allows its contents to percolate through a little hole arranged for the purpose, after the flush is past.

PRICE.—No. 82 Closet, as shown, £2 7s. 6d.; with decorations in colours and gilding, £3 2s. 6d.

Manufactured by Shanks & Co., Barrhead, N.B.

# Trident Hopper Water Closet with "P" Trap. Bronze Medal, 1892.

To Portsmouth Water Fittings Co.



DESCRIPTION.—The Closet and Trap are made in one piece of Earthenware, with Flushing Rim and Trap above floor line.

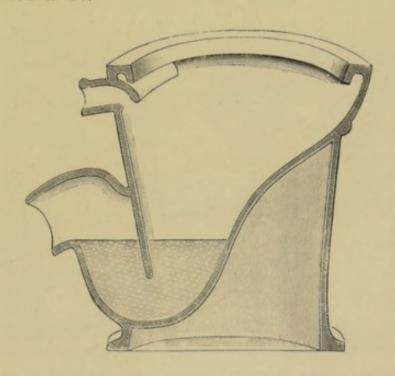
PRICES.—Fireclay, £1; Plain White or Ivory Basin, £1 5s.; Printed Pattern £1 16s.

Manufactured by TWYFORD, LIMITED, Cliffe Vale Pottery, Hanley, Staffordshire.

#### Perfection Wash-Down Closet.

Bronze Medal, 1894.

То Ј. Dіммоск & Со.



Description.—The Closet is pedestal form, constructed on the Wash-down or short hopper principle, having a straight back outlet, with deep water seal of two inches; the cup of basin retains a water depth of five inches as soon as it is discharged.

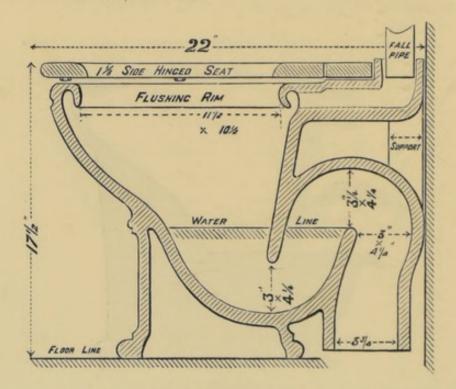
PRICE.—Water-closet complete, decorated in flown mulberry, and including mahogany seat, earthenware paper box, two-gallon cistern, brackets, pull and chain, £4 2s.

Manufactured by J. DIMMOCK & Co., Albion Works, Hanley, Staffordshire.

"Clencher" Washdown Closet.

Bronze Medals, 1897 and 1899.

To J. DUCKETT & SON, LIMITED.



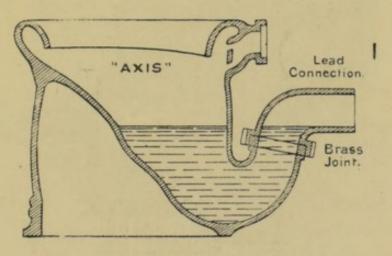
Description.—Pedestal Closet, made in one piece of ware. The trap has a 2 in. seal. The flushing rim is connected with the supply pipe by two oblique channels. No rubber cone is required for nozzle. Seat is hinged to a back rail which is bolted to the ware, thus dispensing with brackets. Water surface in basin is 7 in.  $\times$   $5\frac{1}{4}$  in. Closet is self-contained and strong, and can be supplied with P, Q, or S trap.

PRICES .- On application.

Manufactured by J. Duckett & Son, Limited, Sanitary Ware Works, Burnley.

## Axis Water Closet with Screw Brass Joint. Bronze Medal, 1898.

To TWYFORDS, LTD.



Description.—The closet is pedestal form, constructed on the wash-down or short hopper principle. Connection between outlet of basin and lead bend is under water, but above the level of the floor. Has large surface of water in basin and deep seal in trap.

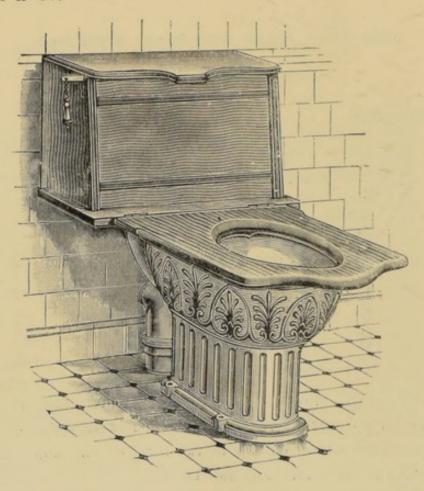
PRICES.—Cane ware, white inside, £1 16s.; white earthenware, £2 2s.; printed pattern, £2 5s.; enamelled, £2 14s.

Manufactured by TWYFORDS, LTD., Hanley, Staff.

Combination Closet with Cistern immediately behind.

Bronze Medal, 1894.

To SHANKS & Co.



Description.—The Closet which should be of the short Hopper pattern is made in one piece of strong Enamelled Fireclay, either with S or P trap, and has a large inlet Horn, six times the capacity of an ordinary horn, made in one piece with Closet. A Cistern, on single or double valve principle, with an Outlet Valve correspondingly large, with inlet horn of Closet, is placed at the back of Closet, and connected direct to that inlet horn. When Cistern Valve is lifted, the contents of Cistern are rapidly precipitated through the large opening into the Basin.

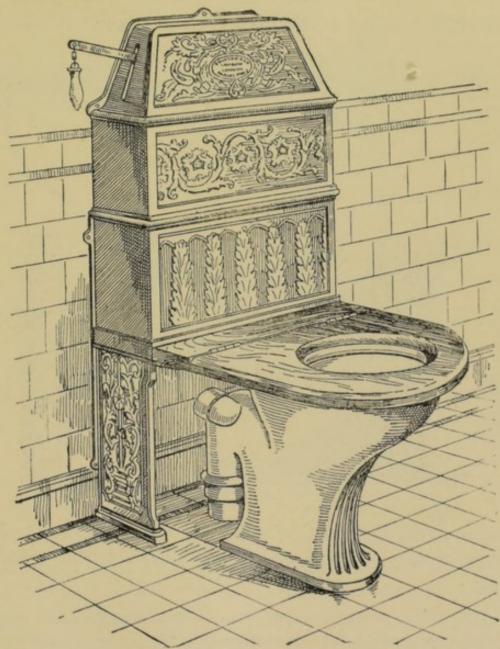
PRICE.—£4; with pine casing and mahogany seat, £4 10s.; with mahogany or walnut seat and casing, £5.

Manufactured by Shanks & Co., Tubal Works, Barrhead, N.B.

"Compact" Wash-down Closet.

Bronze Medal, 1899.

To Doulton & Co.



DESCRIPTION.—Under some conditions, such as want of necessary height, etc., it is inconvenient to fix the ordinary tank. This apparatus is designed by means of a siphon of very large bore to meet such requirements. The tank is placed at a very low head above the basin, but sufficient to set up siphonic action, and a large volume of water is quickly discharged into the basin.

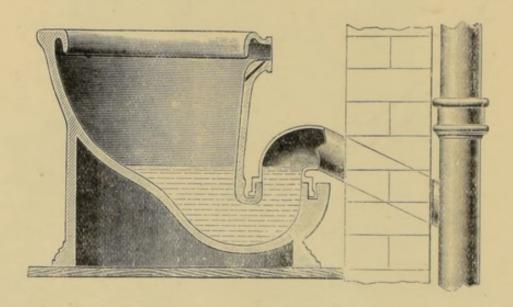
PRICES.—No. 517H.—Strong glazed ware closet, white inside and brown out, with polished pine seat, ornamental c.i. cistern, brackets and pipe cover, painted £4 15s. Can be supplied with turn-down (S) or shoot-out (P) trap.

Manufactured by Messrs. Doulton & Co., Limited, Lambeth, London, S.E.

### Aquarius Water-closet and Fittings.

Bronze Medal, 1899.

To C. W. OUTRAM & Co.



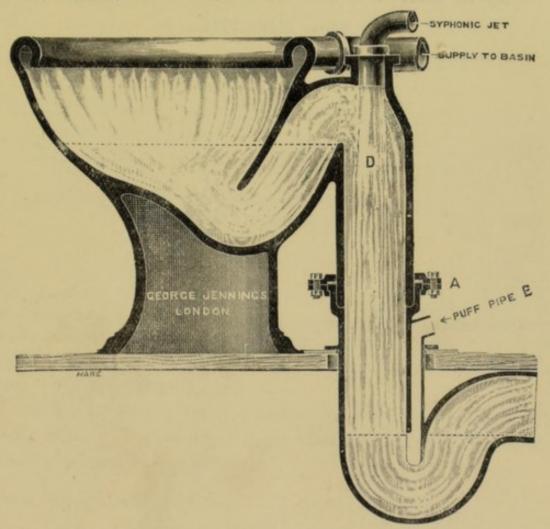
Description.—The outlet is adjustable to any position; the joint is below the water line, and if not sound the defect would be revealed by leakage.

PRICES.—No. S 30, as shown, with P. Earthenware Bend, cane and white, 26s., white, 30s. Extra for S Earthenware Bend, 2s. 6d. Extra for Special Aquaris Vent, 1s. 6d., less trade discount.

Manufactured by C. W. OUTRAM & Co., Woodville, Burton-on-Trent.

Century Siphonic Closet with Open Air Ventilation between Traps.
Silver Medal, 1894.

To G. JENNINGS.



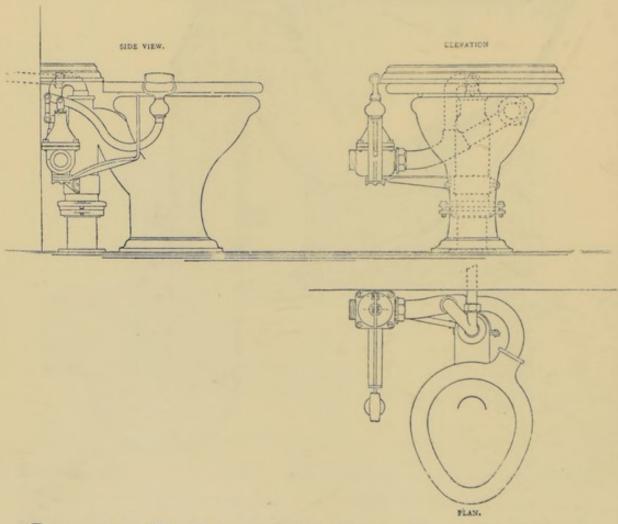
Description.—The service pipe from cistern has two connections to Closet, one into flushing rim in usual manner, the other into the top of long leg of Siphon pipe D. The supply from cistern is thereby divided into two streams, one flushes the basin, the other rushes down the leg D, expels the air through puff pipe E, starts the Siphonic action and empties the basin, which is refilled with clean water by an after flush arrangement in the cistern. A special feature of this Closet is the vent pipe E, which is conducted to the outer air, and not into the apartment.

PRICES.—Complete with cistern and down service pipe, seat, and lead trap, from £5 5s.

Manufactured by G. Jennings, Ltd., Lambeth Palace Road, London, S.E.

Syphonic Closet with Non-Waste Preventing Supply Valve.
Silver Medal, 1897.

To G. JENNINGS.



Description.—The Syphonic action and general arrangement of the closet is described on page 149. The improvement, represented by the accompanying illustrations, consists in the adaptation of a suitable form of Regulating Supply Valve, by means of which the w.c. or any number of closets can be connected by a service pipe direct from a general storage cistern in any position convenient for this purpose: consecutive flushes are immediately available, and noise in action is thereby reduced to a minimum.

PRICE. -£4 7s. 6d.

Manufactured by G. Jennings, Ltd., Lambeth Palace Road, London, S.E.

Syphonic Closet with Waste Preventing Supply Valve, giving 3 gallons flush.

Silver Medal, 1897.

To G. JENNINGS.

Description.—The Syphonic action and general arrangement of the closet is described on page 172, in combination with the arrangement of Supply Valve described on opposite page.

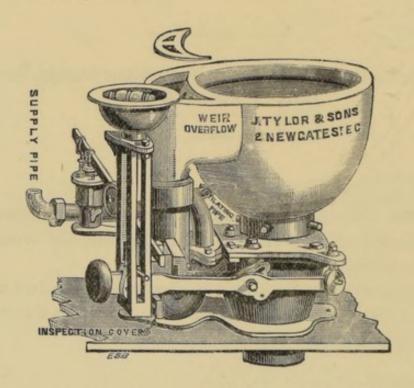
A further improvement has been devised, restricting the flush or quantity of water used whilst dispensing with the waste preventing flushing cisterns heretofore required for this purpose.

PRICE COMPLETE.-From £4 18s.

Manufactured by G. Jennings, Limited, Lambeth Palace Road, S.E.

# Weir Overflow, Valve Water Closet for Lead Trap. Bronze Medal, 1890.

To J. TYLOR & SONS, LIMITED.



Description.—With parallel action adjustable pull, and anti-friction guide; full-sized flushing rim basin, with large Weir overflow, which is flushed each time the handle is raised. This overflow can be examined and cleaned.

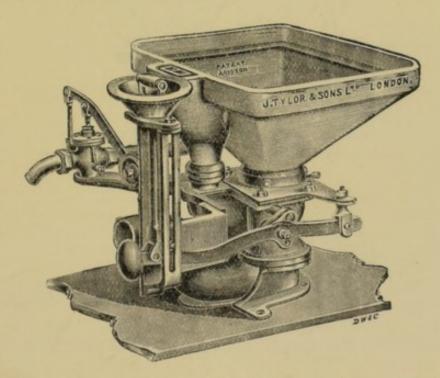
Sizes.—Top of Basin, outside measure, 14 in.  $\times$  16 in.; Outlet, inside measure,  $3\frac{1}{2}$  in; Depth of Basin, 11 in.; Total height of top of Basin above floor when fixed, 17 in.

PRICES.-From £5 8s.

Manufactured by J. Tylor & Sons, Limited, 2, Newgate Street, London, E.C.

Ariston Valve Closet. Bronze Medal, 1894.

To J. TYLOR & SONS.



Description.—Patent "Ariston" Valve Closet, with reversible lead trap above floor level, brass collar, parallel action pull, and adjustable brass sunk dish. Square white china basin with flushing rim, and large overflow with removable cleaning cover and one inch regulator Valve. This Closet having a square basin is adapted for use as a slop sink.

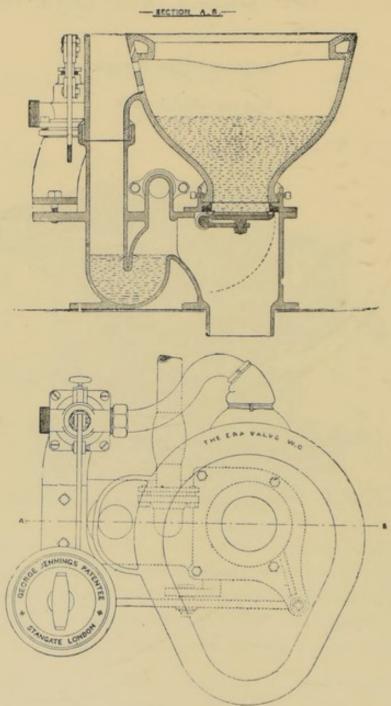
PRICE.-£7 6s.

Manufactured by J. Tylor & Sons, Limited, 2, Newgate Street, London, E.C.

DIVISION C.—CLASS II.—Section 7.—Water Closets. (Cont.)

"Era" Valve Closet. Bronze Medal, 1899.

To G. JENNINGS.



Description.—This Closet is of the Bramah type with full way antipercussive regulating service valve, flushing rim basin, large weir overflow, union for vent, pipe to valve box at highest point, iron work galvanised with brass couplings and mount.

PRICES COMPLETE.—White earthenware basin, £4 4s.; painted earthenware basin, £5; decorated in colour, £5 10s.; decorated and gilt, £6 6s.

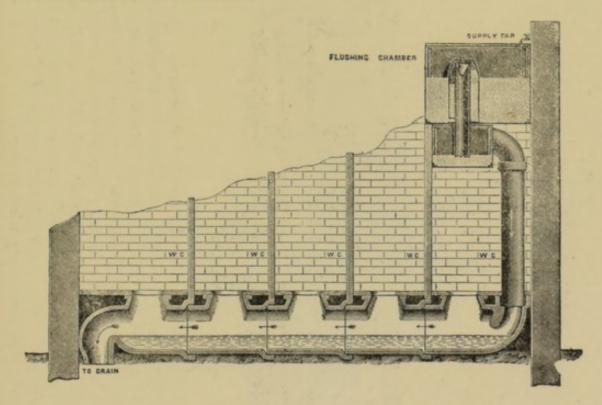
Manufactured by G. Jennings, Limited, Lambeth Palace Rd., London, S.E.

DIVISION CLASS II.—Section 7. Water Closets. (Continued.)

### Self-Cleansing Trough Closet.

Bronze Medal, 1894.

To Bowes Scott & Western.



Description.—The Trough or Latrine is made in Salt Glazed and in Enamelled Stoneware.

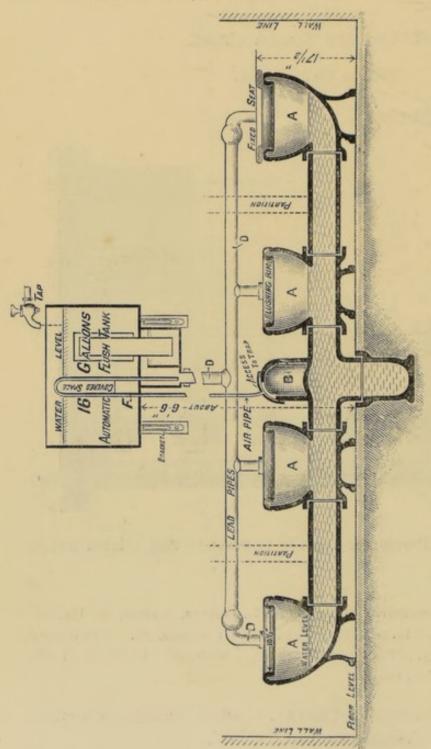
SIZES AND PRICES.—Enamelled Stoneware, 2 ft. centres, 2 seats, £1 17s. 6d.; 3 seats, £2 12s. 6d. 2 ft. 6 in. centres, 2 seats, £2 2s.; 3 seats, £3. 3 ft. centres, 2 seats, £2 6s. 6d.; 3 seats, £3 8s. Salt Glazed, 2 seats, £1 11s. 6d. to £1 19s; 3 seats, £2 3s. 6d. to £2 16s. 6d.

Manufactured by Bowes Scott & Western, Limited, Broadway Chambers. Westminster, London, S.W.

### DIVISION C.—CLASS II.—Section 7. Water Closets. (Continued.)

### Latrine with Isolated Pans. Bronze Medal, 1899.

To J. DUCKETT & SON, LIMITED.



The cistern is of strong galvanised iron The standing water The outlet trap may be placed in the middle of range (as shewn on plan) or in any other surface is 13 in. by 12 in., and 9 in. below top of seat. Each basin has a flushing rim with vertical in all cases provided with There is ample space to fix it between the range and the back wall. Description.—The basins are in pedestal form of enamelled stoneware. stop tap, so that the range may be syphoned empty when required preferred). basin is supplied when outlet is preferred under basin. when sent out are all marked ready for fixing. but can be supplied of enamelled flushing apparatus. required position.

Sizes.—In ranges of from 2 to 10 persons. Prices.—On application.

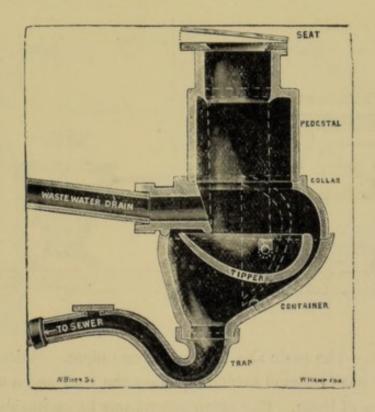
Manufactured by J. Duckett & Son, Limited, Burnley, Lanc.

DIVISION C. - CLASS II .- Section 7. Water Closets. (Continued.)

Day's 'Stafford" Slop Water Closet.

Bronze Medals, 1894, 1896, and 1897.

To Sanitation Improvement Co., Wolverhampton.



Description.—This Closet is for utilizing waste water from sinks, baths, &c. The tipper is directly under the seat. By moving the pedestal the tipper can be taken out and all parts cleaned or repaired at little cost.

Sizes. - Patterns A, B, and C.

PRICES.-£1 12s. 6d. £1 17s. 6d. £2 9s.

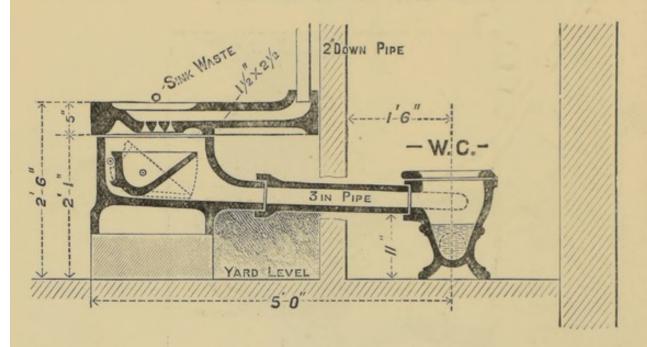
Manufactured by DAY'S SYNDICATE, LIMITED, Horsehay, Salop.

DIVISION C.—CLASS II.—Section 7. Water Closets. (Continued.)

The "Rapid" Slop-water Closet.

Bronze Medal, 1899.

To J. DUCKETT & SON, LIMITED.



Description.—The basin and trap are in one piece. Pedestal has a side inlet and short open channel extending along the back and a short distance along both sides of basin. This arrangement acts like a flushing rim. It is not liable to become choked. The automatic tipper is fitted with Duckett's improved buffers, and is covered with a special perforated dish 18 in. by 18 in by 6 in. Facilities are provided for tilting the automatic tipper by hand when desired. The galvanised-iron sink waste-pipe is fitted with a copper flap, to prevent cold air passing into the dwelling. Provision for ventilating closet trap is provided when required.

PRICES.—In salt-glazed ware, including pedestal, special trap, connecting pipe, tipper, box, dish, sink pipe with copper flap, £1 16s. 6d.

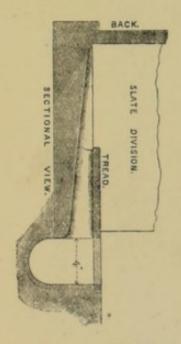
Manufactured by J. Duckett & Sor, Limited, Burnley, Lanc.

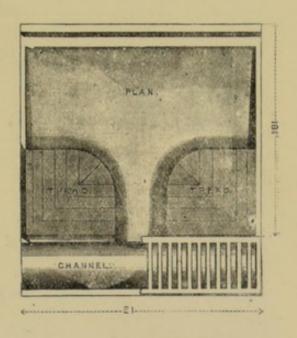
#### DIVISION C .- CLASS II .- Section 8. Urinals

#### Beancliffe Urinal Base.

Bronze Medal, 1889.

To Joseph Cliff & Sons.





DESCRIPTION.—The Bases are independent of the Channel for carrying away the water, and can be set at one and the same level throughout. Every part is accessible for cleaning, and the Channel can be swept out from end to end upon removing the gratings.

PRICES.—Single Stall Bases, with Treads, £1; Double, £2.

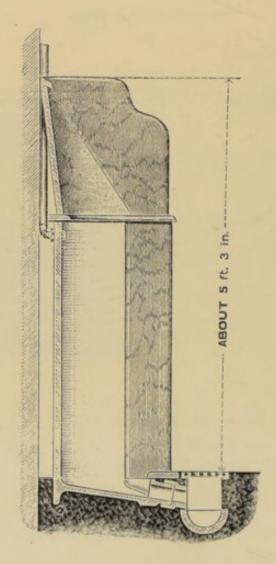
Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

DIVISION C .- CLASS II .- Section 8. Uri ls. (Continued.)

Special Urinal.

Bronze Medal, 1890.

To Doulton & Co.



DESCRIPTION.—The Back forms a segment of a circle, and the Base is well dished, both being made in strong Salt-Glazed Stoneware. A copper Sparge-Pipe is carried round the back (protected by the Slate top), and flushes both Back and Base.

PRICES.—From £7 15s., Single.

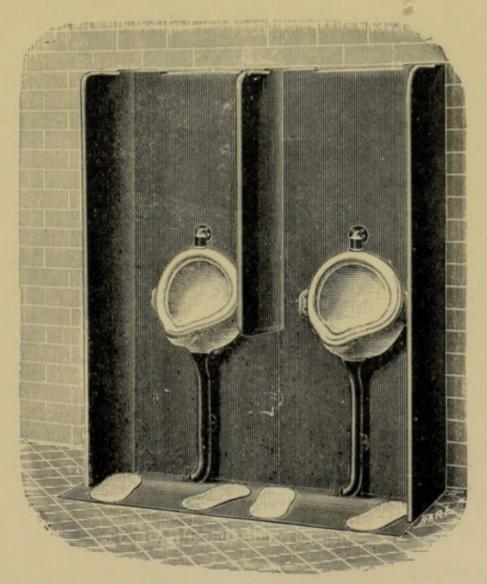
Manufactured by DOULTON & Co., Lambeth, London, S.E.

DIVISION C .-- CLASS II .- Section 8. Urinals. (Continued.)

Improved Urinal.

Bronze Medal, 1890.

To BURN & BAILLIE.



Description.—The Foot-plates, which are placed so that a person using the Urinal is not comfortable unless standing upon them, are intended to keep the user well forward to the basin to ensure its being used, thus avoiding the splashing of urine against the Enamelled Slabs; the outlet gratings of the Basin and of the Channels are movable.

PRICES.-From £6 15s. to £8 10s.

Manufactured by Burn Bros., 23 and 24, Charing Cross, S.W.

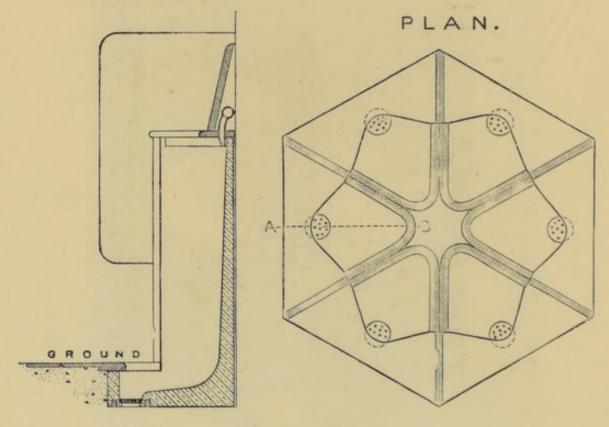
DIVISION C .- CLASS II .- Section 8. Urinals. (Continued.)

Porcelain Radial Urinal, with Stall and Pan in one piece.

Bronze Medal, 1894.

To G. JENNINGS.

SECTION ON LINE AB.



Size.—4 ft. high, 12 in. deep; width in centre, 15 in.

PRICES.—In Plain Slate, from £7; in Enamelled Slate, from £9 10s.; in Polished Marble, from £10 15s. each. Arranged in Single Stalls, Straight Ranges, or Groups as shewn.

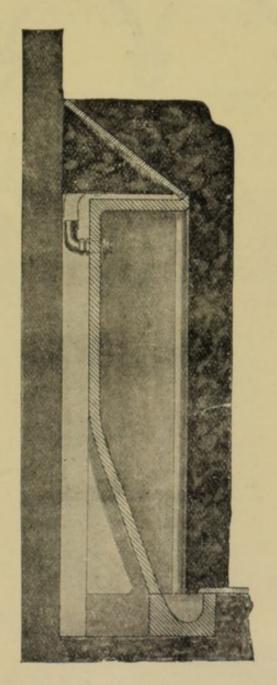
Manufactured by George Jennings, Ltd., Lambeth Palace Road, London, S.E.

DIVISION C .- CLASS II .- Section 8. Urinals. (Continued.)

Urinals with Enamelled Fireclay Backs for Automatic Flushing.

Bronze Medal, 1896.

To SHANKS & Co.



DESCRIPTION.—These Urinals are made in one piece. The flushing is supplied by means of a spreader fixed at top of angle back. From the height of the spreader, and extending down the sides to the gutter, there is a lip in the fireclay to prevent the water spreading beyond it.

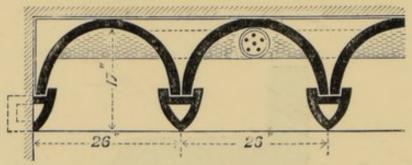
PRICES.—£7 2s. 6d. per stall to £10 10s. per stall.

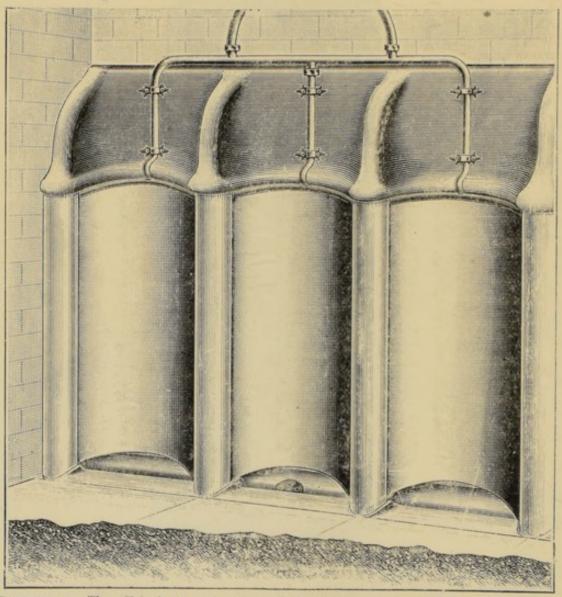
Manufactured by Shanks & Co., Barrhead, N.B.

DIVISION C .- CLASS II .- Section 8. Urinals. (Continued.)

Enamelled Glazed Urinals.—Bronze Medal, 1898.

To J. DUCKETT & SON, LTD.





DESCRIPTION.—These Urinals are made of enamelled ware in two widths. Pillars and caps are under cut for cement key. Vertical joints of caps are behind flush pipes. Each range is erected, fitted, and numbered before leaving the works, so that the parts can be put together afterwards. Being highly glazed these Urinals cannot be written upon and defaced.

SIZES .- "A" size, 23 in. from centre to centre; "B" size, 26 in.

PRICES .- On application. Made in Amber and in White Enamelled Ware.

Manufactured by J. DUCKETT & SON, LTD., Sanitary Ware Works, Burnley, Lancashire.

DIVISION C.—CLASS II.—Section 8. Urinals. (Continued.)

### Range of White Enamelled Urinals.

Bronze Medal, 1899.

To GEO. HOWSON & SONS, LIMITED.

Description.—Fireclay Urinal Range, buff glazed, or enamelled white, in any number of stalls, fitted complete with automatic flushing cistern and flush pipes, galvanized or brass tread-plates covering channel.

Sizes.—According to number of stalls or space.

PRICE.—Complete for three persons, £21 10s. 6d.

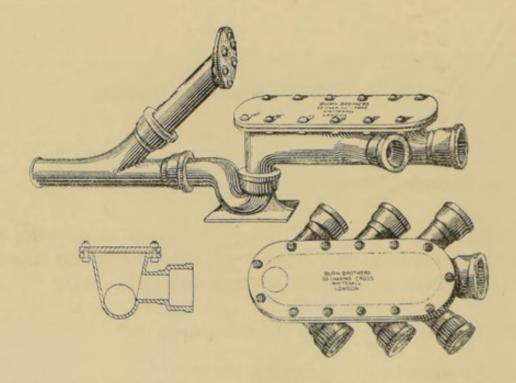
Manufactured by George Howson & Sons, Limited, Eastwood Sanitary Works, Hanley.

DIVISION C .- CLASS II .- Section 9. Sewers, Drain Pipes, & Accessories.

Cast Iron Drain-Pipes, Inspection-Chamber, and Traps.

Bronze Medal, 1890.

TO BURN & BAILLIE.



DESCRIPTION.—They are made of the strength of water-pressure mains, three-eighths of an inch thick; the joints being caulked with yarn and run with molten lead. The Inspection Cap is fixed with Galvanized 1ron Bolts and G. M. Nuts.

Size.—Pipes in 3 ft., 6 ft., and 9 ft.

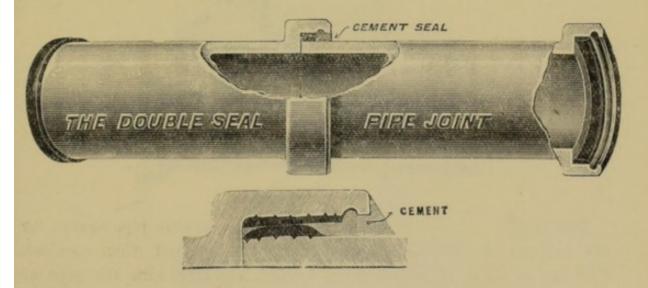
PRICES.—On application.

Manufactured by Burn Bros., 23 and 24, Charing Cross, London, S.W.

### Double Seal Pipe Joints.

Silver Medal, 1890.

To Joseph Cliff & Sons.



DESCRIPTION.—These pipes are similar to the Stanford jointed pipes but have in addition a deeper and undercut socket, so that after the pipes have been laid and tested, an ordinary cement joint can be made in addition to the Stanford joint.

Sizes —4 in., 6 in., 9 in., 12 in., 15 in., 18 in. diameter.

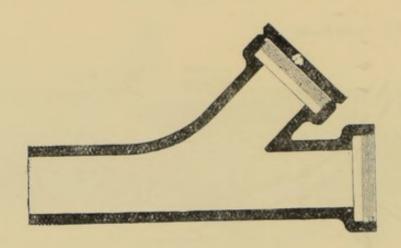
PRICES.—8d., 1s., 1s. 6d., 2s. 3d., 3s. 9d., 5s. per foot.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

Joinder for Drains.

Bronze Medal, 1898.

To G. JENNINGS.



Description.—For introduction in lines of stoneware pipe sewers, for the purpose of facilitating future connections as and when required. The cap or cover of socket being formed, together with the pipe or junction, in one piece of vitrified glazed stoneware, leakage of any kind is prevented, whilst its removal leaves the open socket in readiness for the continuity of the branch drain. A few sharp blows upon a fine-edged chisel at the cutting groove are all that is necessary to ensure a clean fracture at this point.

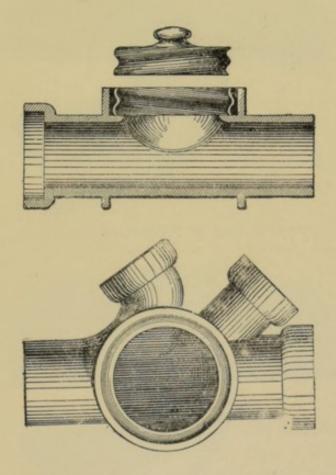
Sizes and Prices.—Extra cost of Junctions (any pattern) with the Patent Joinder: 4 in., 0s. 9d.; 6 in., 1s. 0d.; 9 in., 1s. 9d.; 12 in. diam., 2s. 9d. Each branch extra on cost of Junction. Separate Capped Sockets any size also supplied.

Manufactured by George Jennings, Lambeth Palace Road, London, S.E.

Sykes's Access Pipes and Junctions.

Bronze Medal, 1899.

To Albion Clay Co., Limited.



Description.—Access is obtained for cleansing through the screw-plugged inspection hole. The stoppers are gas and watertight when fixed with Russian tallow.

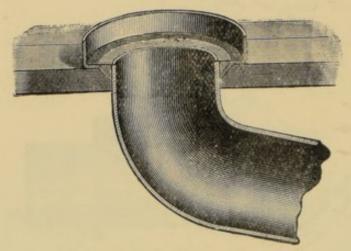
Sizes and Prices.—6 in. Pipe, Bend, or Junction, with 9 in. Screw Stopper, 10s. each plain, and 1s. 6d. extra each for Side Inlets.

Manufactured by Albion Clay Co., Limited, Albion Works, Woodville, Burton-on-Trent.

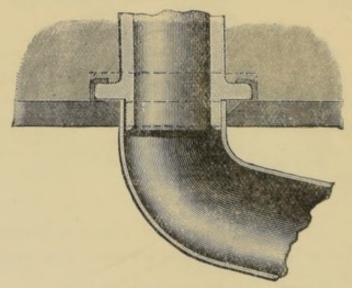
Collar Joint for connection of Soil-Pipe to Water-Closet.

Bronze Medal, 1890.

To BOSTEL BROS.



Showing Joint ready to receive W.C.



Showing Joint with Closet in place.

DESCRIPTION.—The Lead Collar is wiped with plumbers' metal to the Soil-Pipe and then bossed over the flange of the trap, the closet being previously bedded in the usual way.

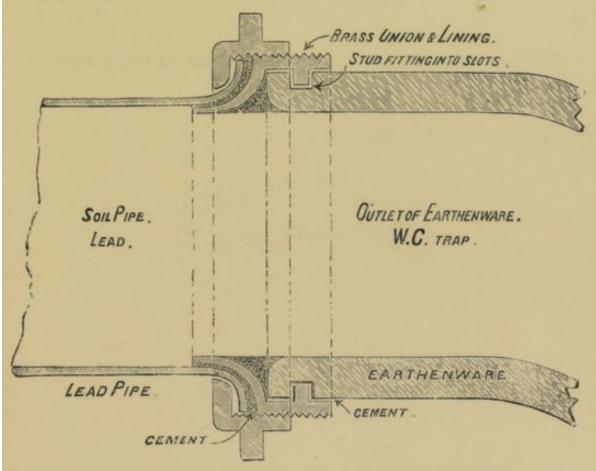
PRICE.-From 2s. 6d.

Manufactured by Bostel Bros., 18 & 19, Duke Street, Brighton.

Union Joint for Connection of Soil-Pipe to Water-closet.

Bronze Medal, 1890.

To D. T. BOSTEL.



Description.—This Joint is for the purpose of connecting an earthenware P trap with a lead soil-pipe. It is made in Brass-work, and consists of two parts, one of which fits on to the outlet of the trap and is fixed by three Studs cast on the inside which slip into Grooves made in the earthenware, and by a half-turn it is fixed. The other part forms a Cap with a Female Thread to fit a Male Thread on the first part, after this part is fixed to the Trap. To make the Joint slip the Cap on to the soil-pipe, which is then opened with a Tan Pin and painted inside. The water-closet is then placed in position and the whole screwed up, the Joint being above the floor. Cement used: Red lead and gold size cement.

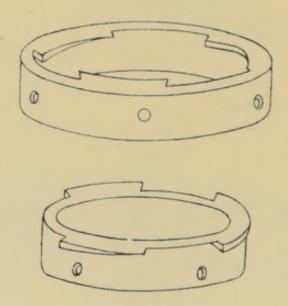
PRICE.-11s. each.

Manufactured by D. T. Bostel & Son, 73, Ebury Street, London, S.W.

Bayonet Joint for Connecting Closet Basin to Metal Pipe.

Bronze Medal, 1892.

To Portsmouth Water Fittings Co.



DESCRIPTION.—Consists of two metal flanges made to fix with wedge shaped ribs on outside of smaller flange and on inside of the large flange, tightening the joint like the thread of a screw.

PRICES.-Cast Iron, 3s. 6d. and 4s. 6d.; Brass, 10s.

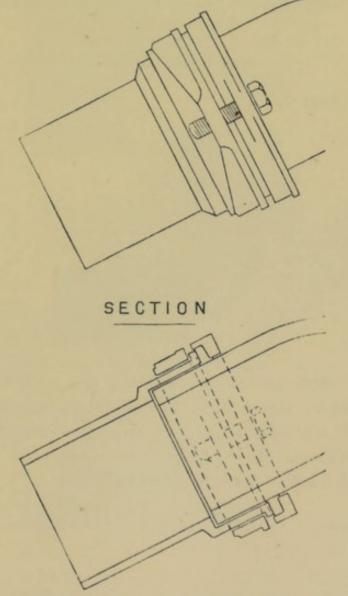
Manufactured by TWYFORDS, LTD., Cliffe Vale Pottery, Hanley, Staffordshire.

Joint for Connecting Closet Basin to Metal Pipe.

Bronze Medal, 1892.

To G. JENNINGS.

### ELEVATION



DESCRIPTION.—The joint is made with an India-rubber Ring, which is tightly compressed against the flange of the lead soil pipe and the earthenware trap by means of two galvanised-iron collars, which are placed one above and the other below the ring and drawn together by two screw bolts.

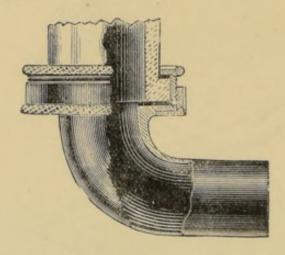
PRICE.-From 10s.

Manufactured by G. Jennings, Ltd., Lambeth Palace Rd., London, S.E.

Union Joint with Divided Gland for Coupling Flush Pipe with Basin of W.C.

Bronze Medal, 1892.

To QUIRK & SHARP.



DESCRIPTION.—This connection consists of a split collar threaded on the outer surface, which is placed round the flush inlet immediately behind the beading. Over this is screwed up an ordinary union carrying a brass bend flanged at the bottom. Between the face of the brass bend and the earthenware inlet a rubber washer is inserted.

Sizes .- Various.

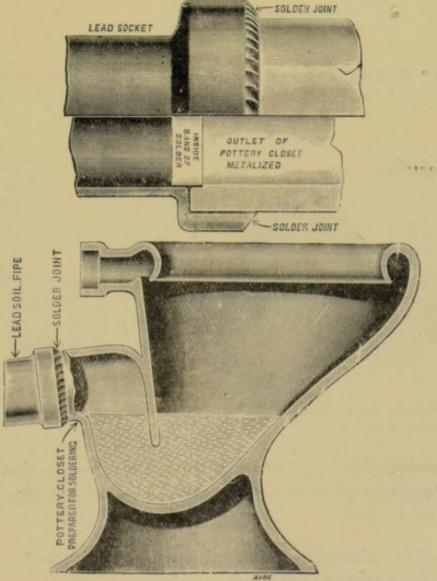
PRICE.-7s. 6d.

Manufactured by Quirk & Sharp, 31, Islington, Liverpool.

Metallo Keramic Joint for Connecting Lead to Earthenware.

Silver Medal, 1894.

To Doulton & Co.



Description.—The earthenware is painted over with a metallic solution and then fired. A thin film of metal is formed on the surface of the earthenware, and to this a branch of lead pipe is soldered, thus enabling a lead pipe to be attached by the ordinary solder joint. In the illustration the metallic coating covers the end of the earthenware pipe, and underlies the solder joint which is shown in section.

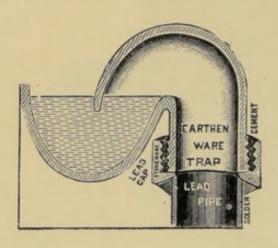
PRICES.-With Closet, from £3 12s. 6d. to £6 11s.

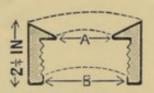
Manufactured by Doulton & Co., Lambeth, London S.E.

"Enable" Method of Connecting Lead Pipe with Earthenware Pipe.

Bronze Medal, 1894.

To T. Robinson.





DESCRIPTION.—A Stoneware socket covered with lead, so that an Earthenware closet trap can be cemented into it, and a lead soil pipe connected with the outside lead.

Sizes.—The "Enable" closet trap Connection to suit any size closet, and the Connecting Block to suit 4 inch soil pipe.

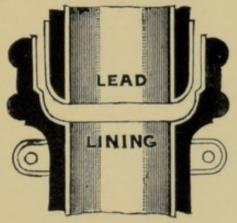
PRICES.—The Closet Connection 2s. 6d.; The Soil pipe Connection 3s. 6d.

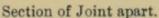
Manufactured by T. Robinson, Wardle, near Rochdale.

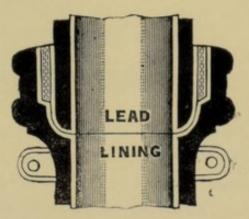
### Lead-lined Iron Pipes.

Bronze Medal, 1899.

TO SANITARY LEAD LINING & PIPE BENDING CO.







Section of Joint made.

Description.—These Pipes are made of cast iron of best quality and finish, and are lined with lead of 5 lb. substance, or with lead of heavier substance to order. They are used for soil and waste pipes of every description, and for ventilating shafts. The joints are made with metallic lead, staved as in jointing ordinary iron pipes.

Sizes.-2 in. to 6 in. diameter.

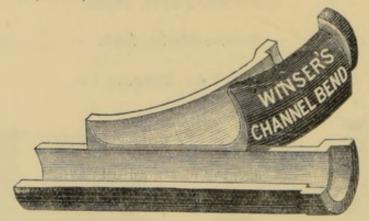
PRICES .- On application.

Manufactured by The Sanitary Lead Lining & Pipe Bending Co., Ltd., John Street, Adelphi, London, W.C.

Enamelled Drain Channels.

Bronze Medals, 1889 and 1890.

To WINSER & Co., LTD., and J. CLIFF & SONS.



DESCRIPTION.—The outer side is carried higher than the inner, and curved over, so that the sewage, as it rises in passing round the bend, is concentrated and folded over like a wave, and turned in the direction of the out-go. They are all made with sockets and a broad flat rebated base.

Sizes.—4 in., 6 in., and 9 in. (straight channels).

PRICES.—2s., 2s. 8d., and 4s. each.

Manufactured by Winser & Co., Ltd., 52, Buckingham Palace Road, London, S.W.

White Enamelled Straight and Curved Channels for Inspection Chambers to Drains.

Bronze Medal, 1892.

To BROAD & Co.

Description.—These are designed for use in Inspection Chambers.

Size.-4 in., 5 in., 6 in., 9 in. and 12 in.

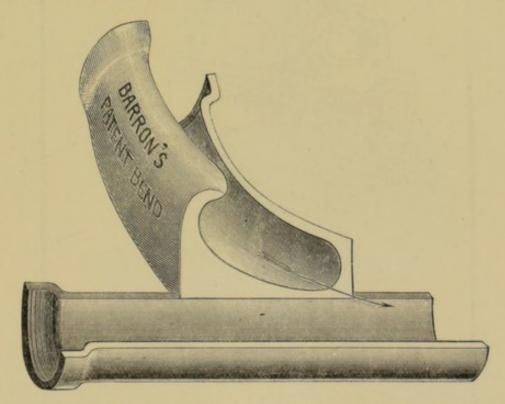
Manufactured by Broad & Co., Ltd., South Wharf, Paddington, W.

Barron's Channel Bends made to pass Drain Plug. Bronze Medals, 1896 and 1898.

To WM. HARRIMAN & Co.

Barron's Channel Bends. Bronze Medal, 1899.

To Hooper & Ashby, Southampton.



DESCRIPTION.—The form is three-quarter circular at the inlet, and elliptical at the outlet; thus concentrating the sewage to the inner side of the channel bend, and deflects same in an oblique direction. The inner side is made higher at the outlet and slightly curved to compensate for the loss of area caused by the sloping side. Sufficient space is provided for the insertion of drain test plug.

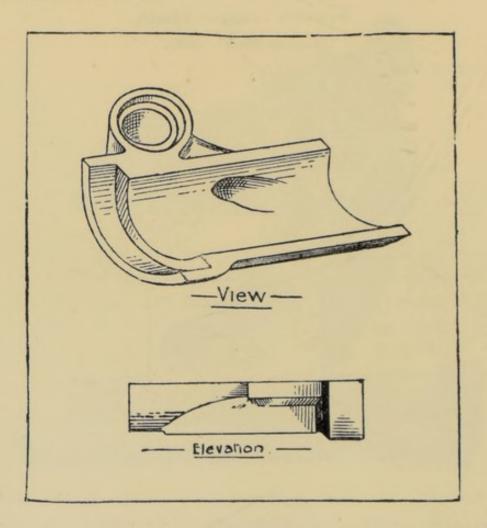
PRICES. -4in., 3s. 6d.; 6 in., 5s.

Manufactured by WM. HARRIMAN & Co., LTD., Newcastle-upon-Tyne.

DIVISION C .- CLASS II .- Section 9. (Continued.)

## Floor Channels with Socket for Waste Pipes. Bronze Medal, 1898.

To WM. HARRIMAN & Co.



DESCRIPTION.—White glazed floor channel, with patent vertical rest bend inlet to receive waste pipes, having a flat base, and so arranged as to deliver right in the flow of channel. Made in right or left hand, with one or more inlets.

Sizes.-6-in. channel, 2-in. inlets, 1-ft. lengths.

PRICE .- 3s. 6d.

Manufactured by WM. HARRIMAN & Co., LTD., Newcastle-on-Tyne.

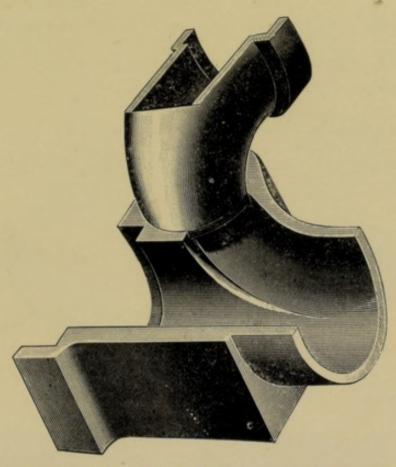
Green's Wyvurst Channels and Inlets for Manholes.

Bronze Medal, 1898.

To SUTTON & Co.

"Wyvurst's" Channels. Bronze Medal, 1899.

To J. CLIFF & SONS.



DESCRIPTION.—The inlets, which fit into vertical sockets on the junctions or terminals in the inspection chambers, may be placed at any angle desired, and consequently admit of connections being made with drains from any direction. The channels are so constructed that fouling and splashing are prevented.

Sizes.—			9 in.	6 in.	4 to 6 in.	4 in.
PRICES.—Junctions : Double			7s. 6d.	58.	4s. 6d.	3s. 9d.
Single, ri Terminals: Double				3s. 6d.	38.	2s. 6d.
Single			6s. 6d. 4s. 6d.	3s. 9d. 2s. 6d.	3s. 3d. 2s. 3d.	2s. 6d. 2s.
Inlets: Double			7s. 6d.	4s. 6d.	48.	3s. 9d.
Single	***		5s. 6d.	3s.	2s. 9d.	2s. 6d.
Lengtheners	***	***	48.	2s. 6d.	2s. 3d.	28.

Manufactured by Sutton & Co., Union Pottery, Overseal, near Ashby-de-la-Zouch.

### White-glazed Dorset Clay Channels.

Bronze Medal, 1899.

To G. JENNINGS.

Description.—Channel Pipes made of vitrefied Dorset clay instead of fireclay, enamelled white.

PRICES.—On application.

Manufactured by G. Jennings, Ltd., Lambeth Palace Road, S.E.

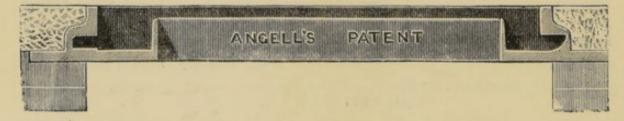
Improved Air-tight Manhole Cover.

Bronze Medal, 1889.

To A. T. ANGELL.



This cover, although removable, is locked and firmly fastened when closed.



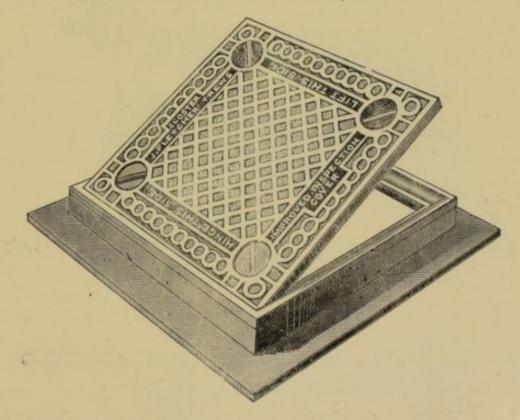
Sizes.—16 in.  $\times$  14 in. up to 3 ft.  $\times$  2 ft.

Manufactured by A. T. ANGELL, 2, Drayton Gardens, London, S.W.

Trew's Manhole Cover.

Bronze Medal, 1889.

TO THE SANITARY AND (ECONOMIC ASSOCIATION, LIMITED.



DESCRIPTION.—This is made in two parts; one forms the frame, which is a fixture; the other the movable cover, which is without hinge. The cover consists of a casting 18-inch square, having a flange on each side. When the cover is closed, the flange fits into a corresponding groove in the frame. One of these flanges is rounded and forms a substitute for a hinge. It is made air-tight by filling the groove with grease.

Size.—18 in.  $\times$  18 in.

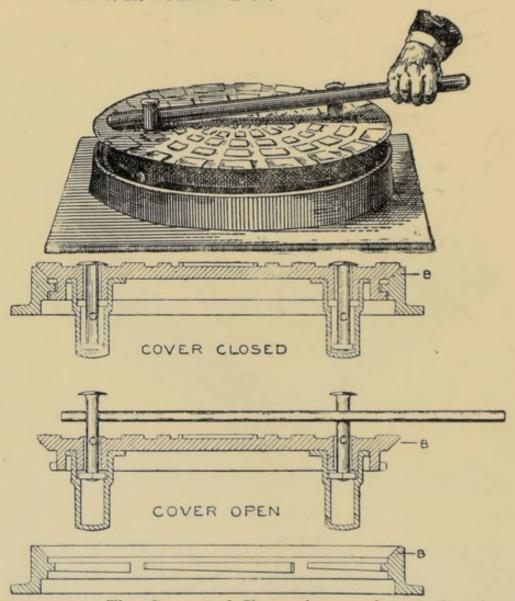
PRICES.—Black Iron, £1 2s.; Galvanised, £1 15s.

Manufactured by The Sanitary and Œconomic Association, Limited, Gloucester.

Durrans' Metallic Jointed Air-Tight Cover. Bronze Medal, 1889.

Manhole Cover with Metal-faced Joint. Bronze Medal, 1890.

To H. DEAN and T. H. DURRANS & Co.



DESCRIPTION.—The Cover and Frame have truly turned and ground bevelled faces B, which are brought together by a bayonet joint fastening (with ribs and inclined planes). To open the Cover the two drop handles C are raised, and a bar of iron serves as a lever to turn the Cover. It is locked when down, and cannot be opened without the lever.

Sizes.—18 in., 20 in., and 24 in. diameter.

PRICES.-£2, £2 10s., and £2 15s.; Locking extra.

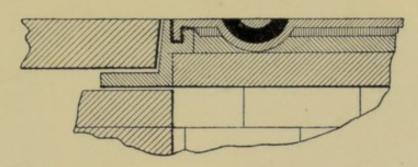
Manufactured by House Sanitation Company, 15a, Upper Baker Street, London, N.W.

### Air-tight Manhole Cover.

Bronze Medal, 1889.

To Winser & Co., Limited.

### Nº 1.



DESCRIPTION.—The Covers are made with a grooved joint all round, as shown in the section, which can be filled with oil or glycerine, or fitted with india-rubber packing. They are made with two forms of outer flange. The one shown is generally used when the Cover is fitted in concrete or similar paving.

Sizes.—1 ft. 10 in.  $\times$  1 ft. 4 in. to 3 ft. 6 in.  $\times$  2 ft. 6 in.

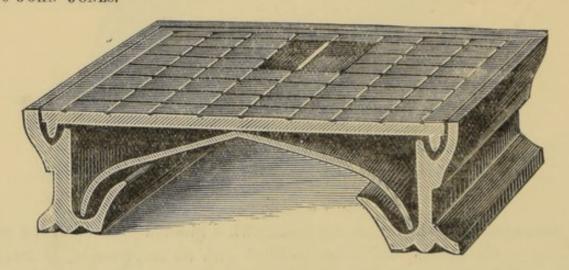
PRICES.-15s. to £3 3s. each.

Manufactured by Winser & Co., Limited, 52, Buckingham Palace Road, London, S.W.

### Manhole Cover for Drains. Bronze Medal, 1890.

Condensation Manhole Cover (Double). Silver Medal, 1894.

To John Jones.



DESCRIPTION.—The Inner Cover is arched, which allows the moisture from the drain, which condenses on it, to run down to the Groove, into which the Cover fits, and thus makes an air-tight joint. The top Cover is flat with the surface of the ground, and also fits into another groove that may be filled with any suitable material, thus forming a second seal. Where required the Covers are made in one piece.

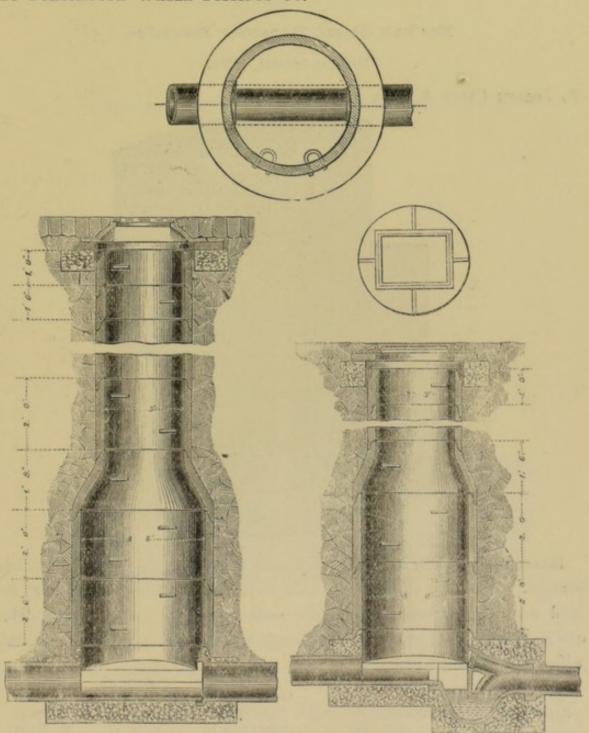
Size.—23 in.  $\times$  13½ in., 24 in.  $\times$  17in., 26 in.  $\times$  20 in., 27½ in.  $\times$  18½ in., 34½ in.  $\times$  22½ in., 36 in.  $\times$  20 in., 57 in.  $\times$  39 in.

PRICE.-From £1 7s.

Manufactured by John Jones, Carlyle Works, Church St., Chelsea, S.W.

Tyndale's Rock Concrete Manhole for Sewers and Drains. Bronze Medal, 1892.

To Portsmouth Water Fittings Co.



DESCRIPTION.—Made in Rock Concrete Rings in sections to enable manholes of any depth to be constructed quickly.

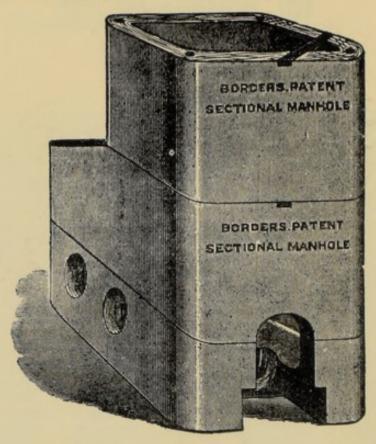
Sizes.—Base Rings, 36 in.  $\times$  24 in.; Tapers, 36 in. to 27 in.  $\times$  18 in.; Shaft Rings, 27 in.  $\times$  24 in. or 12 in.

PRICES.-From 6s. 6d. per foot.

Manufactured by Henry Sharp, Jones & Co., Limited, Bourne Valley Works, Poole.

## Border's Glazed Stoneware Manholes. Bronze Medal, 1899.

To Joseph Cliff & Sons.



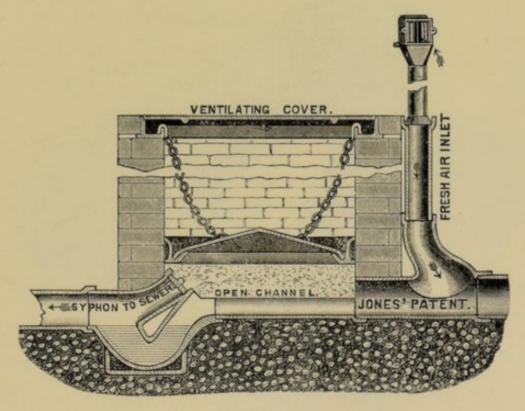
Description.—The Manhole has a solid section at the bottom, in which channels can be had as desired. One, two, or three large sections may be used near the bottom and smaller sections up to ground level. The channels can be had at any point or angle and the wall sections can be had without the channel base.

	Inside measurements.	Salt glazed.	Cream glazed.
SIZES AND PRICES.—Section A	$20\times20\times18$	£1 14 0	£2 6 0
"В	$36 \times 20 \times 18$	2 8 0	3 5 0
Bottom Section with 2 side channels	$36 \times 20 \times 18$	2 4 0	3 0 0
Step Irons and Dowels extra. Top Sec Manhole Frames and covers provided.	tion can be had	with 4 in. a	ir inlet. Iron

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Baltic Wharf, Waterloo Bridge, London, S.E.

# Condensation Seal Cover for Bottom of Manholes. Bronze Medal, 1892.

To JOHN JONES.



Description.—Intended for bottom of deep Manholes, to be fixed about one and a half feet above open channel, thus limiting the space in which foul gases can accumulate.

Size.—26 in.  $\times$  20 in. and 36 in.  $\times$  24 in.

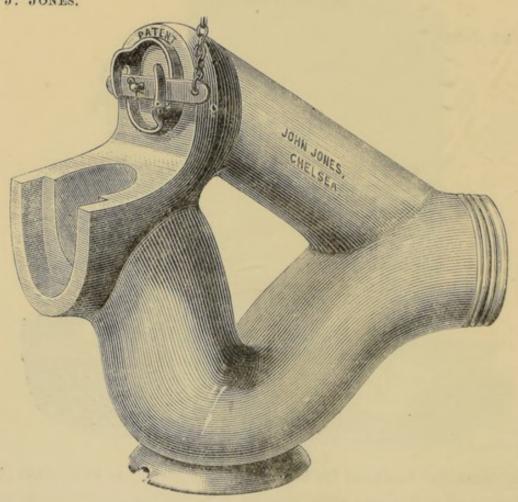
PRICE. -25s. and 35s. Galvanised Chain and hooks 1s. per lb.

Manufactured by John Jones, Carlyle Works, Church Street, Chelsea, S.W.

Releasable Stopper for Cleaning Arm of Disconnecting Trap.

Bronze Medal, 1897.

To J. Jones.



DESCRIPTION.—The Inspection Cap is fixed by means of a lever catch, which can be released by a chain, in order to empty the inspection chamber, should it get filled, by the stoppage of the trap.

PRICE.—In galvanized iron, 6s. 6d.; brass, 8s. 6d. Length of chain extra.

Manufactured by J. Jones, Carlyle Works, Church Street, Chelsea, London, S.W.

#### Adjustable Gradient Indicator.

Bronze Medal, 1890.

To THOMAS JAMES MOSS FLOWER.



DESCRIPTION.—For the purpose of laying drain pipes at a given inclination. Generally used in conjunction with straight edge.

Sizes .- About 10 to 15 inches long.

PRICES.—A Pattern, £2 15s. 0d. C Pattern, £1 1s. 0d. B , £1 17s. 6d. D , £1 10s. 0d.

Manufactured by T. J. Moss Flower, Scottish Buildings, Bristol.

\* Indicating Gradient Blocks.

Bronze Medal, 1890.

To THE SANITARY AND DOMESTIC ENGINEERING COMPANY.

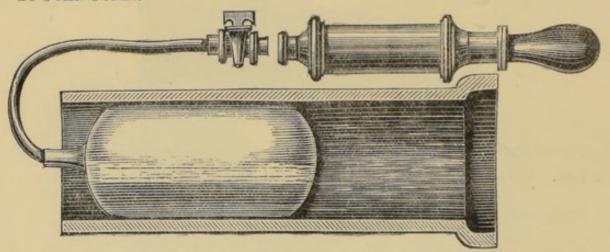
Drain Stopper.

Bronze Medal, 1890.

Bag Drain and Pipe Stopper.

Bronze Medals, 1892 and 1896

To John Jones.



DESCRIPTION.—The Stopper consists of a cylindrical-shaped Bag, which is placed in the pipe and inflated with a small Air-Bellows or Pump, for stopping pipes for the purpose of testing, &c.

Sizes.-Made for 4 in., 6 in., 9 in., 12 in., 15 in., and 18 in. pipes.

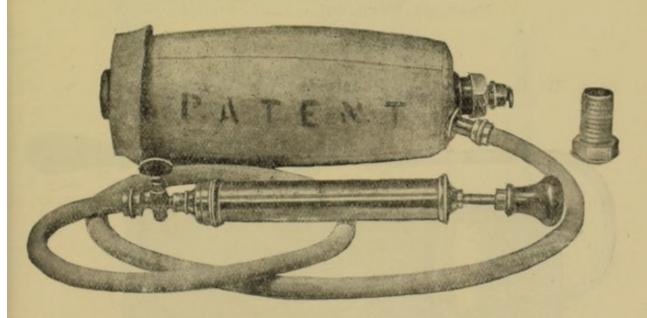
PRICES.— £1, £1 2s., £1 8s. 6d., £1 18s. 6d., £2 8s. 6d., £2 18s. 6d. £3 3s. per set complete. Air Inflators 4s. and 5s. 6d. each. Set, comprising 4 in., 6 in., 9 in., and Best Inflator, £3 8s.

Manufactured by John Jones, Carlyle Works, Church Street, Chelsea, London, S.W.

Bag Drain Stopper, with Central Outlet.

Bronze Medal, 1896.

To J. Jones.



Description.—A barrel-shaped bag, built on embedded wire rubber hose the hose being 14 in diameter. Shaped with proofed gauze, then coated all over with pure rubber, and finally covered with proofed canvas, trebly stitched. There are special brass connections, fixing either end of bag. At the inlet end is a dished rubber washer, fixed by means of the brass connection. At the outlet end is a brass cap, by means of which the water can be gradually let off. At side of bag is the attachment with length of tubing, and tap at extreme end, through which the bag is inflated.

Sizes.—4 in., 5 in., 6 in., 9 in., 12 in., 15 in., 18 in., but any size can be made.

PRICE.—From £1 5s. 6d. upwards.

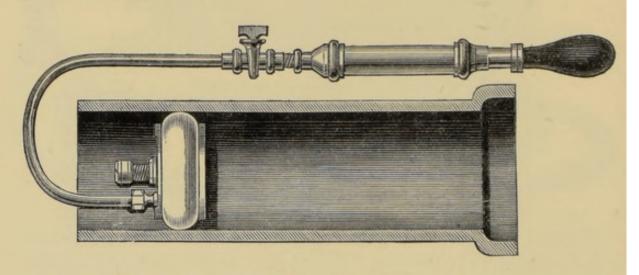
PARTS .- Bag and Air Pump.

Manufactured by John Jones, Carlyle Works, Church St., Chelsea, S.W.

#### Pneumatic Expanding Drain Stopper.

Bronze Medal, 1894.

To A. W. REID & Co.



DESCRIPTION.—This consists of a hollow rubber cushion fixed between metal plates, to which is connected a length of flexible tube fitted with a stop-cock and small force pump. The appliance is fitted with a removable cap to allow the drain to be emptied gradually.

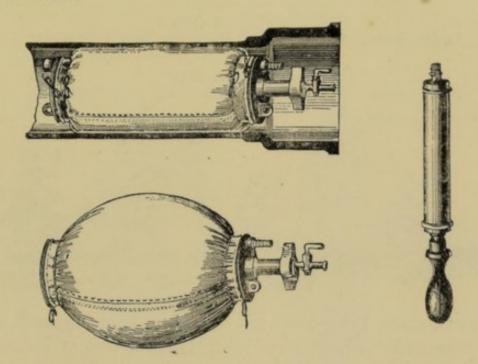
SIZES AND PRICES.—In Galvanised Iron (including Pump), 4 in., 18s. 6d.; 6 in., £1 1s.; 9 in., £1 7s. 6d. Set of 4 in., 6 in., and 9 in., with one Pump, £3 2s. In Brass (including Pump), 4 in., £1 1s. 6d.; 6 in., £1 5s.; 9 in., £1 15s. Set of 4 in., 6 in., and 9 in., with one Pump, £3 16s. 6d.

Manufactured by A. W. Reid & Co., 69, St. Mary Axe, London, E.C.

#### Expanding Drain Stopper.

Bronze Medal, 1898.

To BURN BROS.



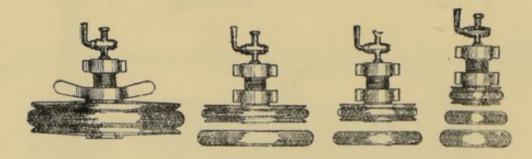
Description.—The Stopper has a range of expansion from 4 in. to 9 in. diameter, and is provided with loose canvas covers to suit the various sizes of drain pipes. A tube is carried through the centre for the application of smoke or air tests, and is provided with a plug for use with water test, or when applied in testing a drain in sections. Connections are provided whereby the Stopper may be inflated from either end. An eyelet is fixed in each end for attaching cords, by means of which the plug may be drawn to any point in a drain between manholes and there inflated, using an air tube of sufficient length to reach the Stopper. The Stopper may be drawn into the drain a distance of say 3 ft., the length being determined by knotting the cord at regular intervals. The testing apparatus is connected by means of a similar Stopper or an ordinary expanding plug at the end of the drain, and the air or smoke test applied. If the test is satisfactory the Stopper is released, drawn say 3 ft. further along the drain, inflated, and the test applied to the 6 ft. of drain.

PRICES.—Stopper as shown, with 6 ft. of air tube, air cock screwed to fit pump, and three canvas covers for 4-in., 6-in., and 9-in. drains, £1 14s. Extra canvas covers for renewal, 4 in., 1s. 4d.; 6 in., 1s. 8d.; 9 in., 2s. each. Air pumps, 6s. each. Additional length of air tube,  $3\frac{1}{2}$ d. per ft. run.

Manufactured by Burn Bros., 24, Charing Cross, London, S.W.

# India Rubber Expanding Plug for Drain Testing. Bronze Medal, 1890.

TO BURN & BAILLIE.



Description and Use.—These are used for plugging up drains and for testing either with water, smoke, or other tests. Instead of having a bolt and nut by which to draw up the flanges a brass tube and nut are used, to which an india-rubber tube can be connected.

They are made in sets comprising two sizes of brass flanges and six moulded india-rubber rings (with which any sized pipe from 3 in. to  $6\frac{1}{2}$  in. diameter may be plugged), and one test cock.

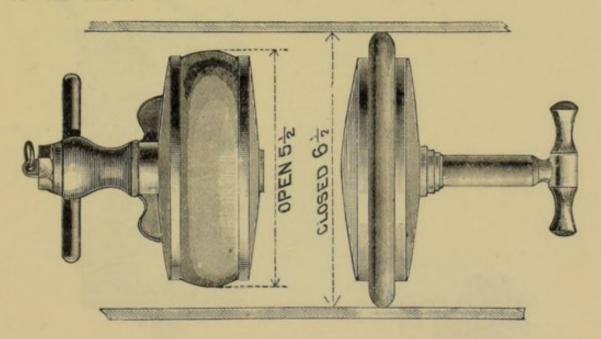
Sizes.—3, 4,  $4\frac{1}{2}$ , 5, 6,  $6\frac{1}{2}$  inches.

PRICE COMPLETE. -£1 9s. per set. 9 in. expanding plug with test cock, 17s. 6d.

Manufactured by Burn Brothers, 24, Charing Cross, S.W.

## Expanding Screw Drain and Pipe Stopper. Bronze Medal, 1892.

To JOHN JONES.



Description.—This Stopper consists of two galvanized iron plates or discs, between which a hollow rubber ring of special construction is fixed by means of grooves in the plates. It is screwed up by a T handle, the rubber expanding quite an *inch*. Made with or without outlets.

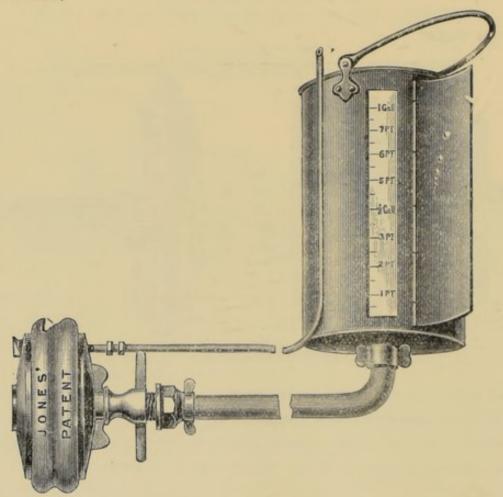
PRICE OF COMPLETE SET. - £3 16s.

Manufactured by John Jones, Carlyle Works, Church St., Chelsea, S.W.

Screw Expanding Drain Stopper and Water Test Indicator.

Bronze Medal, 1894.

To J. Jones.



DESCRIPTION.—Hollow Rubber Ring Stopper, fitted with union for connecting a Copper Cylinder guaged as a Test Indicator, and also additionally fitted with air outlet for the escape of air whilst filling the drain with water.

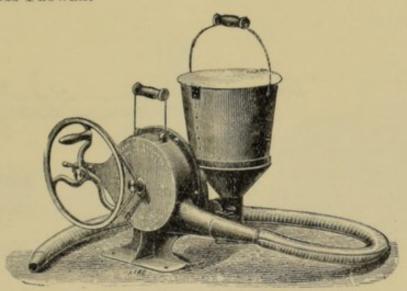
PRICES.-1 Gallon Copper Cylinder with Glass Gauge, complete, £1.

Manufactured by John Jones, Carlyle Works, Church Street, Chelsea, London, S.W.

#### Watts' Asphyxiator for Testing Drains.

Bronze Medal, 1890.

To T. J. Moss Flower.



DESCRIPTION.—A machine for Testing Drains by smoke. The nozzle at the end of the flexible hose attached to the machine is inserted into a gully or opening in the Drain. Lighted sulphur or smoke paper is placed in the Combustion Chamber. By turning the handle, which is connected with a revolving fan, the smoke is discharged into the drain.

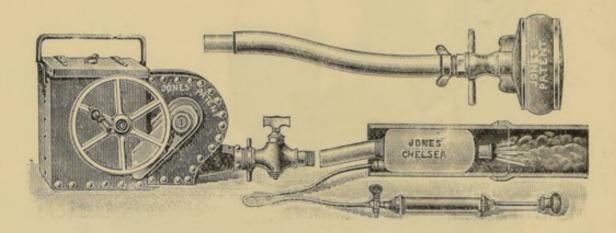
Sizes.— $1\frac{1}{4}$  in. and  $1\frac{1}{2}$  in. pipe.

PRICES.-From £2 15s. to £4 10s.

Manufactured by J. WATTS & Co., Broad Weir Works, Bristol.

## Smoke Machine and Smoke Bag Stopper for Drain Testing. Bronze Medal, 1894.

To John Jones.



DESCRIPTION.—A machine for testing drains by smoke. Lighted sulphur or smoke paper is placed in the combustion chamber; by turning the handle the smoke is discharged through a tube in the bag and so into the drain.

Size.—About 20 in. in length, 6 in. in width, and 12 in. in depth.

PRICE.-£4 10s.

Manufactured by John Jones, Carlyle Works, Church St., Chelsea, S.W.

## Smoke Machine for Drain Testing. Bronze Medal, 1896.

To JOHN G. KIRTLEY.



Description.—It consists of a double-cased cylinder, the space between the inner and outer vessel being filled with water. In this inner vessel the piston works. The movement of the piston by the hand causes the stream of smoke to issue through the nozzle. Attached to this nozzle is a length of flexible tube, and to this an expanding plug. This plug is constructed so that it can be made to form a tight joint to any pipe or trap ranging in size from 3 inches up to 10 inches, the smoke passing through it.

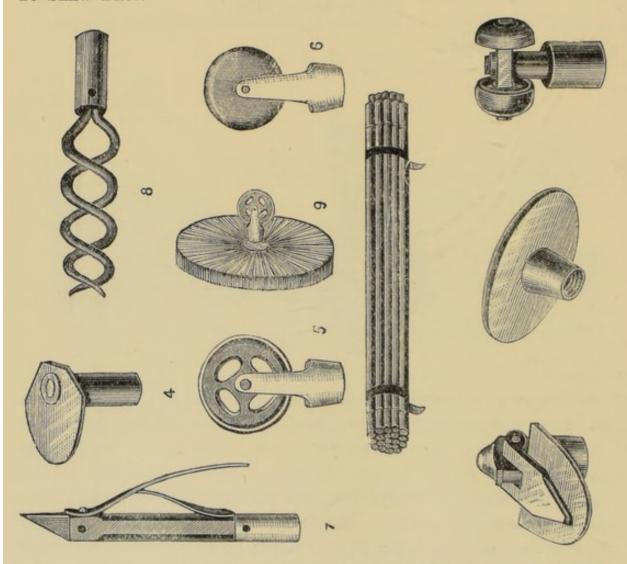
PRICES.—In galvanised steel, £4 4s.; £5 5s.

Manufactured by J. G. KIRTLEY & Co., St. Thomas Street Works, Sunderland.

#### Cane Drain Cleaning Rods.

Bronze Medal, 1894.

To SHAW BROS.



Description.—Malacca Canes, fitted with Brass Male and Female Screws; all fittings to work in 4 in. drains and upwards.

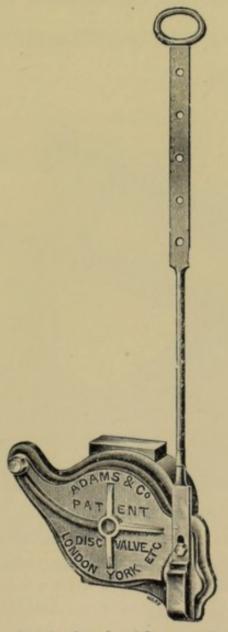
Sizes.—Length of Rods, 2 ft. to 6 ft. long.

PRICES.—1s. 4d. to 2s. 4d. each.

Manufactured by Shaw Bros., 22, Eastbourne Road, Birkenhead.

Wedge Disc Valve. Bronze Medal, 1898.

To Adams & Co.



DESCRIPTION.—Disc valve is fitted with a wedge so formed on handle that it engages in the lower catch on valve body, holding the two falls firmly together. It is as readily released, and valve opened by same handle. The faces are adjustable in case of wear.

Sizes.—From 4 in. to 21 in.

PRICES. - On application.

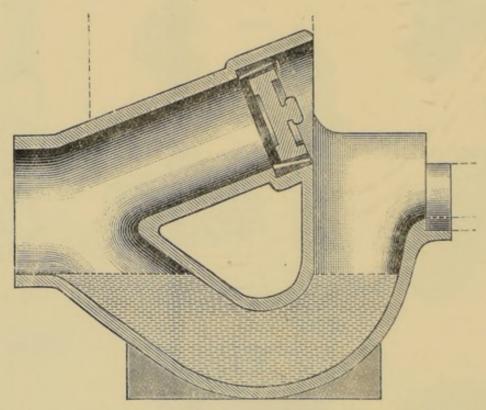
Manufactured by Adams Patent Sewage Lift Co., York, London, &c.

DIVISION C .- CLASS II .- Section 10. Traps and Gullies.

"Beancliff" Disconnecting Trap.

Bronze Medals, 1889 and 1890.

To JOSEPH CLIFF & SONS.



Sizes.—4 in., Brown Glaze inside and outside (4 in. Inlet and Waterway, 6 in. Outlet); 6 in., Brown Glaze inside and outside (6 in. Inlet and Outlet,  $5\frac{1}{4}$  in. Waterway); 4 in., White Glaze outside, White inside; 6 in., White Glaze outside, White inside.

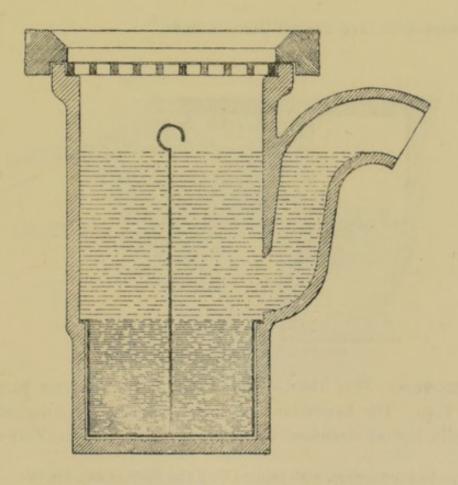
PRICES .- On application.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

Dean's Silt Gully.

Bronze Medal, 1889.

To H. DEAN.



DESCRIPTION.—This Trap is made in two parts, the outer part is made of Stoneware, and the receptacle inside of Galvanised Iron. The receptacle is so placed in the Trap that no solid matters can rest anywhere but in the receptacle, which can be removed and cleaned.

Sizes.—6 in. to 18 in. circular.

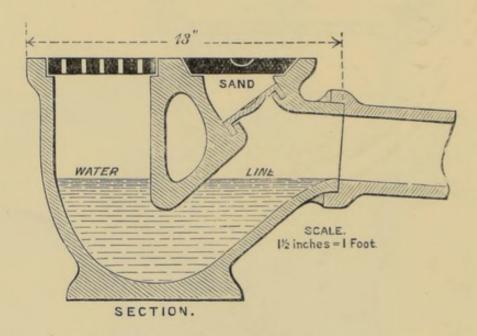
PRICES.-From 7s. to £2 each.

Manufactured by J. C. Edwards, Terra Cotta Works, Ruabon.

#### "Stokes" Gully Trap.

Bronze Medals, 1889 and 1890.

To WINSER & Co. and JOSEPH CLIFF & SONS.



DESCRIPTION.—This Trap affords ready means of access to the outer side of Trap. The Inspection Cap, which has a double cover, allows the drain to be inspected without the necessity of breaking the Trap or pipes.

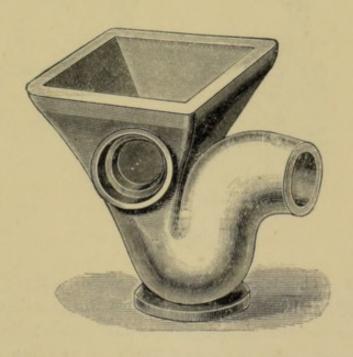
PRICE.—In Brown-ware, with painted Grid and Plate (4 in.), 13s. 9d.

Manufactured by Joseph Cliff & Sons' Branch of the Leeds Fireclay Co., Ltd., Wortley, Leeds.

Jones's Deep Seal Gully.

Bronze Medal, 1896.

To J. Jones.



Size.—Depth, 15 in.; opening at top,  $10 \times 10$  in.; size over all at top,  $12 \times 12$  in.; depth of seal, 3 in. Made in P, S, and Q, with all the usual inlets, and all have 4 in. outlets.

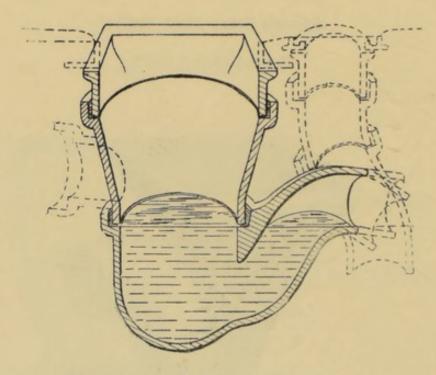
PRICES.-From 7s. 6d. to 9s.

Manufactured by John Jones, Carlyle Works, Church St., Cheisea, S.W.

"Accomo" Yard Gully.

Bronze Medal, 1899.

To Albion Clay Co., Limited.



Description.—The "Accomo" Gully is made in three or more pieces, viz., top, middle, and bottom, each of which turns independently of the others, allowing the grating, side inlets, and outlet to be turned in any direction, dispensing with the use of bends. Any depth can be obtained by adding more middle pieces, with or without side inlets, superposed one above the other.

Sizes.—Made in many sizes with 9 in., 12 in., and 2 ft. diameter for gullies and inspection chambers.

PRICE COMPLETE.—According to the size and number of pieces required to complete same.

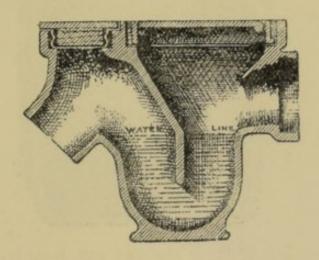
Parts. - According to requirements.

Manufactured by Albion Clay Co., Limited; Works—Woodville; London Office—18, New Bridge Street, E.C.

Sykes's Deep Seal Gully with Extra Large Top and 4-in. Outlet.

Bronze Medal, 1896.

TO ALBION CLAY COMPANY.



Description.—Large grate area to take away storm water. Small water surface exposed to evaporation. Deep water seal. Inspection hole fitted with airtight screw stopper for cleansing drain.

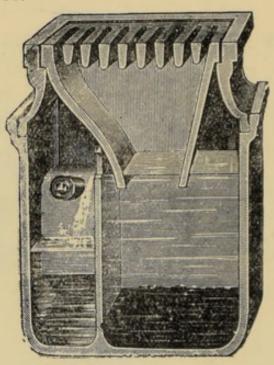
PRICES.—14s. each. C.I. hinged grate, extra, ls. 6d. each nett; ditto, galvanised 2s. 6d. each nett, extra; ditto, galvanised and with locking arrangement, 3s. 6d. each nett, extra. Side inlets ls. each extra.

Manufactured by Albion Clay Co., Woodville, Burton-on-Trent.

Crostas Iron Road Gullies.

Bronze Medals, 1894 and 1897.

TO PATENT GULLY CO.



Description.—The Gully is made of cast iron, formed with a partition across to a determined height so as to form two chambers—one, the Gully proper, and another of much less capacity forming a secondary Gully. The outlet is from the second chamber by means of a dip pipe or tube of sufficient depth to form a trap. The flood water is carried away through the dip pipe to the drain. The second chamber being effectually protected prevents any street refuse getting in, and evaporation taking place. The plug hole on the bend of the dip tube gives access to the drain without disturbing the streets. Any street refuse getting into the Gully is retained in the first chamber, and should the water in this chamber evaporate, the seal of the Gully is still secured by the water in the second chamber.

Sizes.—6 gallons to 25 gallons.

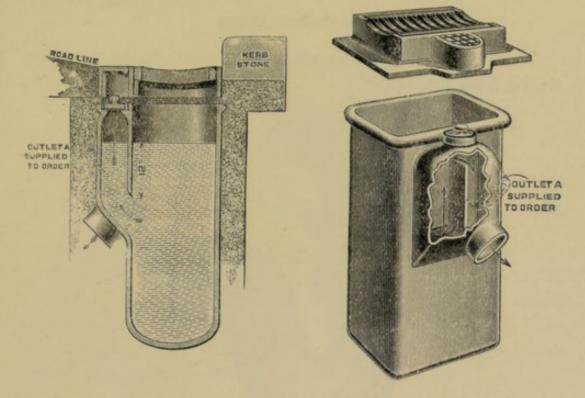
PRICES.—On application.

Manufactured by Ames Crosta Sanitary Engineering Co., Limited, Nottingham.

Sykes's Street Gully.

Bronze Medal, 1899.

To Albion Clay Co., Limited.



DESCRIPTION.—The water descends, and rises again over a diaphragm before it escapes, which action arrests all road detritus. Paper, leaves, straw, etc., rise to the surface and are not likely to enter the sewer. The deep seal provides against untrapping in hot weather. The outlet is well below crown of road.

Sizes and Prices.—Oblong Iron Gully, 16 in.  $\times$  12 in., 53s., complete; Circular Stoneware Gully, 18 in. diameter, 60s., complete; Oblong Stoneware Gully, 18 in.  $\times$  15 in., 60s., complete. Gratings included.

Manufactured by Albion Clay Co., Limited, Woodville, Burton-on-Trent.

Brass Traps for Baths and Sinks.

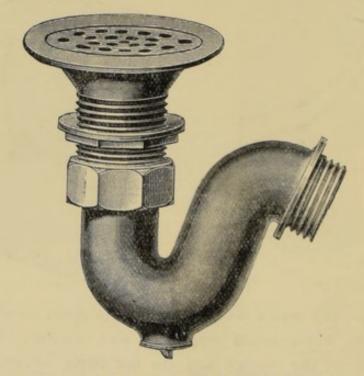
Bronze Medal, 1890.

To Burn Bros., 24, Charing Cross, S.W.

Brass Siphon Traps.

Bronze Medal, 1890.

To MILNE, SONS & MACFIE.



DESCRIPTION.—Brass Scullery Sink Outlet with Bell mouth and movable Flush Grating, union and jam nut for fixing under sinks, brass trap with cleansing screw, outlet end of Trap screwed male for iron barrel, or with cap and lining for lead pipe.

Sizes .- 11 in. and 2 in.

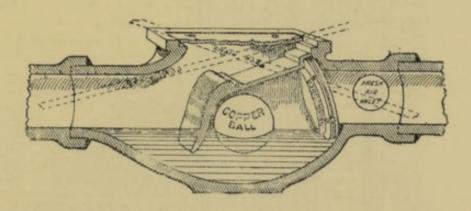
PRICES .- 15s., and 17s.

Manufactured by James Milne & Son, Limited, Milton House Works, Edinburgh; 60, Holborn Viaduct, London; 40, Wellington Street, Leeds; and 111, St. Vincent Square, Glasgow.

#### Tidal Ball Trap Interceptor Valve.

Bronze Medal, 1900.

To G. COUZENS & Co.



Description.—This Ball Trap Interceptor is for the purpose of preventing the back-flow of water in basements during tide-time or heavy storms. Any back pressure of the water affects the ball and forces it against the india rubber seating, thus preventing any escape of water. The iron and other fittings are secured to the stoneware by means of brass screws and dovetail nuts, bedded in suitable material.

Sizes.— 4 inch, 6 inch, 9 inch.

Prices.—Earthenware, £2, £3, £4 10s.

Iron, £3, £4 10s., £7.

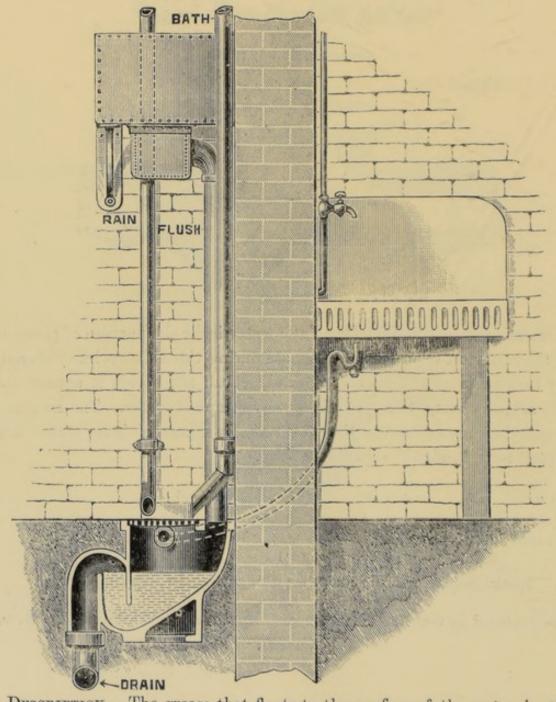
Special and larger sizes suitable for main sewers, &c., supplied to order.

Manufactured by George Couzens & Co., Riverside Works, Tudor Road, Cardiff.

Automatic Flushing Grease Trap. Bronze Medal, 1894.

Automatically Flushed Trap for Grease. Bronze Medal, 1896.

To Bowes, Scott & Western.



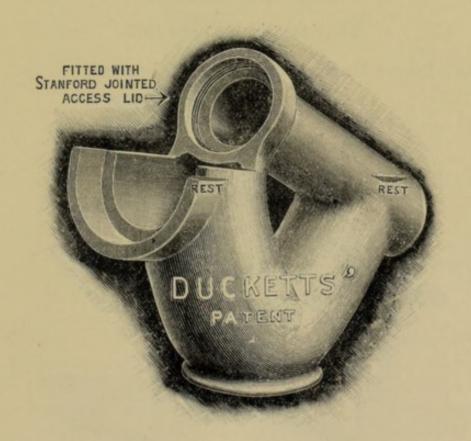
DESCRIPTION.—The grease that floats to the surface of the water in the trap and cools is broken up by the force of the intermittent discharges of the automatic flushing cistern, and is washed away and flushed through the drain in a solidified form.

PRICES.-From £1 10s.

Manufactured by Bowes, Scott & Western, Broadway Chambers, Westminster.

## Rest for Setting Drain Traps Level. Bronze Medal, 1894.

To J. DUCKETT & SON.



Description.—The Trap is constructed with Rests for the Spirit Level to ensure accuracy of level in fixing, and for proper seal being obtained in trap.

Sizes.-4 in., 6 in., 9 in., 12 in.

PRICES .- On application.

Manufactured by J. Duckett & Son, Limited, Sanitary Ware Works, Burnley.

DIVISION C .- CLASS II .- Section 11. Dry Closets.

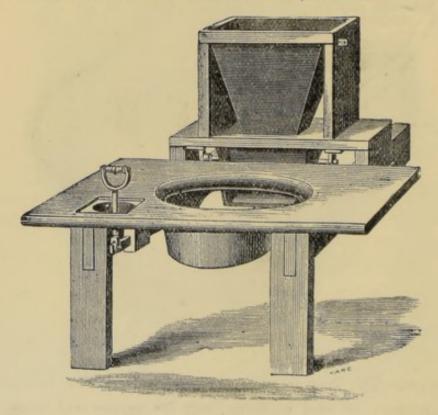
\* Nicholls' Eclipse Soot and Salt Closet. Silver Medal, 1889.

TO H. DEAN.

Moule's Earth Closets.

Silver Medals, 1890 and 1892.

To Moule's Patent Earth Closet Company, Limited.



DESCRIPTION.—The Receptacle at the top is intended for fine earth, which is used as a deodorant. A Pail is placed under the Seat, and when the handle is pulled up a certain amount of earth is thrown into this pail.

PRICES.-From £1 5s. to £8 10s.

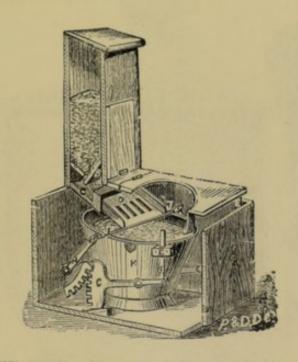
Manufactured by Moule's Patent Earth Closet Company, Limited, 5a, Garrick Street, Covent Garden, London, W.C.

DIVISION C .- CLASS II .- Section 11. Dry Closets. (Continued.)

Earth Closets.

Bronze Medals, 1894 and 1896.

To BRITISH SANITARY COMPANY.



DESCRIPTION.—When the Closet is being used, the seat is depressed about an inch, forcing down the rods EE on each side of the seat, which raise the long and weighted end of the segmental toothed levers G and G, which in turn throw back the long end of the lever H. This duplex action is coupled by the cross bar J, to which is attached the shovel D. This is then withdrawn to the back of the bevelled shelf C, and receives the charge of earth, &c. When the seat is relieved, the weight of the lever brings out the shovel quickly, thus spreading the earth, &c., over the excreta.

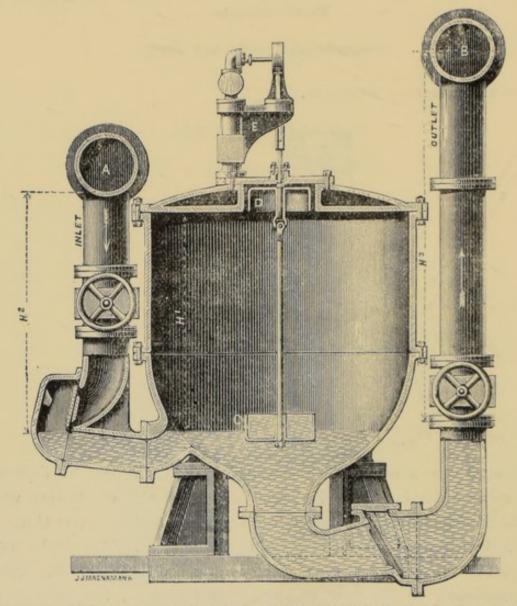
PRICES.-£2 15s. to £8 8s.

Manufactured by British Sanitary Company, 107, Bothwell Street, Glasgow.

DIVISION C.—CLASS II.—Section 12. Sewage Treatment.

#### Shone's Hydro-Pneumatic Ejector. Silver Medals, 1897 and 1898.

To Hughes & Lancaster.



Description.—The sewage enters through the pipe A and gradually rises until it reaches the underside of the bell D. The air inside this bell is then enclosed and the sewage continues to rise until the floating power of the air is sufficient to lift the bell, spindle, &c., which opens the compressed air valve E. The compressed air thus automatically admitted presses on the surface of the sewage, driving it through the opening at the bottom, and through the outlet pipe B. As the air pressure is admitted, the valve on the inlet pipe A falls on its seat and prevents the fluid escaping in that direction. The fluid passes out of the Ejector until its level reaches the cup C, and continuing to lower, leaves the cup full and the weight of the liquid in the portion of cup thus exposed is sufficient to pull down the bell and spindle, thereby reversing the compressed air admission valve. The outlet valve then falls on its seat retaining the liquid in the sewage rising main; the sewage then flows into the Ejector through the inlet once more, driving the free air before it through the air valve, and so the action goes on as long as there is sewage to flow.

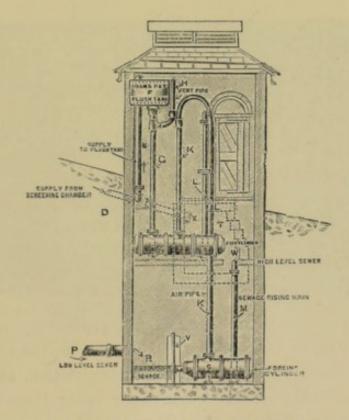
The compressed air for actuating the Ejector is produced at some central station, and conveyed in cast or wrought iron pipes laid under the streets to the several Ejector stations.

Manufactured by Hughes & Lancaster, 47, Victoria Street, London, S.W. and Acrefair Engineering Works, Ruabon.

DIVISION C.—CLASS II.—Section 12. Sewage Treatment. (Continued.)

# Adams' Automatic Sewage Lift. Silver Medal, 1898.

To Adams Sewage Lift Co.



Description.—The sewage to be raised gravitates to a closed receptacle having a rising main connected, and an air pipe leading to and attached to summit of another receptacle. A flush-tank discharging its contents to the latter, the air therefrom is displaced, and passing through air pipe to lower level receptacle exerts its pressure on contents, which are forced up rising main to outlet desired.

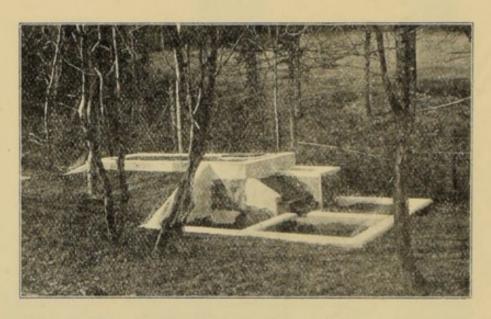
Manufactured by Adams Patent Sewage Lift Co., York and London.

DIVISION C .- CLASS II .- Section 12. Sewage Treatment. (Continued.)

The Septic Tank as an appliance for the hydrolysis of suspended organic matter in sewage and the reduction of sewage sludge.

Silver Medal, 1897.

To CAMERON, COMMIN & MARTIN.

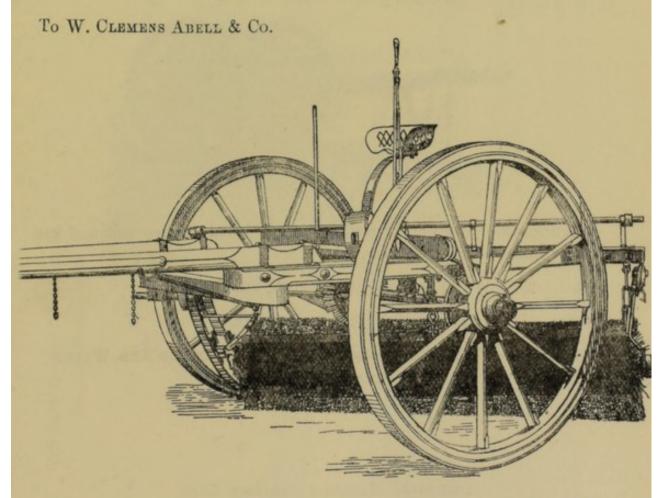


Description.—The Septic Tank is the preliminary stage of what is known as the "septic tank system" of sewage treatment. It is specially designed and fitted to hasten natural decomposition, and to liquefy all animal and vegetable solids. These latter being thrown into solution, there is practically no sludge formed, and the heavy expense incurred in dealing with it is avoided. The sewage, thus freed from solids, is in condition for filtration, and passes in a continuous stream from the tanks to the filters, which are fitted with a simple automatic alternating arrangement by which each filter in turn is filled, discharged, and aërated without attention.

Manufactured by The Septic Tank Syndicate, Exeter and Westminster, from whom plans and license to use the System can be obtained.

DIVISION C.-CLASS II.-Section 13. Miscellaneous Sanitary Goods.

Street-Sweeping Machine.
Silver Medals, 1889 and 1890.



DESCRIPTION.—The Brushes are made in six sections and interchangeable. The Spindle on which the Brushes are placed is jointed, so that the Brushes adjust themselves to the hollows in the roads. Made with bent shafts to level the action of the machine. Foot lever for throwing Brush n and out of gear.

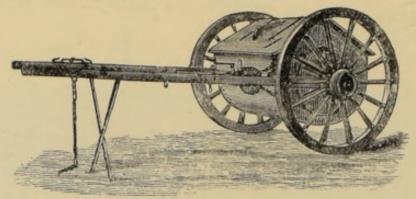
Sizes.—Wheel, 4 ft. 8 in. high; tyres, 3 in. wide; brushes, 7 ft. long. PRICE.—£36.

Manufactured by The Gloucester Railway Carriage and Wagon Co., Limited, Gloucester.

### DIVISION C.—CLASS II.—Section 13. Miscellaneous Sanitary Goods. (Continued.)

## Improved Tumbler Cart. Bronze Medal, 1889.

TO W. CLEMENS ABELL & Co.



DESCRIPTION.—This Cart is made to nearly balance when full, and can be easily turned completely over.

Sizes.—To hold 150 Gallons, 200 Gallons, 260 Gallons.

PRICES .-

£24 10s.,

£26.

£28.

Manufactured by The Gloucester Railway Carriage and Wagon Co., Limited, Gloucester.

#### Improved Tumbler Sanitary Cart.

Bronze Medal, 1892.

To COLEMAN & MORTON.

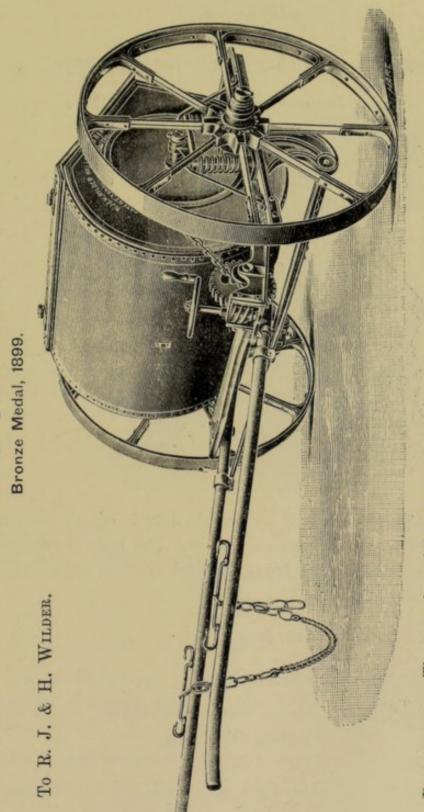
Description.—The Body Plate is made of stout steel, swings on a strong frame behind the axles, and is free from obstruction inside. The chain-tipping arrangement will turn the body entirely over or fix it at any required angle by means of a new and improved locking apparatus.

Sizes.— 100, 150, 200, and 280 gallon capacity.

PRICES.-£20, £25, £29, and £33.

Manufactured by Coleman & Morton, Chelmsford.

### DIVISION C.—CLASS II.—Section 13. Miscellaneous Sanitary Goods. (Continued.)



Wilder's Spring Tumbler Cart.

DESCRIPTION. -The curved steel body being carried over the front part to the lid, when wound level is The cart is mounted on Wilder's patent spring arrangement, and it is worked with greater ease by the capable of being entirely filled, and the lid being rubber-jointed it is practically air-tight; being hung on a central spindle, not on the axles, is much easier for tipping, which is done by a worm and wheel. Also mounted on strong wood wheels for town work, at same The shafts are of tubular steel. norse.

Manufactured by RICHD. JAS. & HY. WILDER, Wallingford, Eerks.

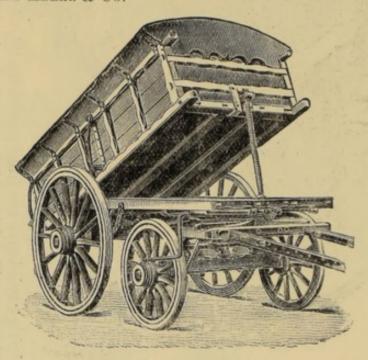
Sizes and Prices.—150 gallons, £27 10s.; 200 gallons, £29 10s

DIVISION C.—CLASS II.—Section 13. Miscellaneous Sanitary Goods. (Continued.)

Watlings and Abell's Tip Wagon for Scavengers.

Bronze Medal, 1889.

TO W. CLEMENS ABELL & CO.



DESCRIPTION.—This Van is built so that the load is equally distributed over the four wheels. It is hung on springs. The body is arranged so that it can easily be moved over a frame on which are fixed six rollers, until the weight causes it to tip itself.

Sizes.—8 ft.  $\times$  4 ft.  $\times$  2 ft. 4 in. deep.

PRICE.-£50.

Manufactured by The Gloucester Railway Carriage and Wagon Co., Limited, Gloucester.

DIVISION C.—CLASS II.—Section 13. Miscellaneous Sanitary Goods. (Continued)

Glover's Tipping Dust Van. Silver Medal, 1899.

To W. GLOVER & SONS, LIMITED.



DESCRIPTION.—Glover's "Champion" Tipping Dust Van, fitted with patent galvanized sliding covers and patent windguards, the latter designed for the prevention of dust being blown on passers-by during the process of loading; with driving box for the men.

PRICE COMPLETE.-£58.

Manufactured by WM. GLOVER & SONS, LIMITED, Warwick.

#### Steam Tip Waggon. Bronze Medal, 1898.

To STEAM CARRIAGE & WAGGON Co.

Description.—Constructed on standard steel underframe, so that interchangeable bodies for dust, and slop or watering body can be readily put in position for use.

Size.—Standard size, 7 cubic yards capacity.

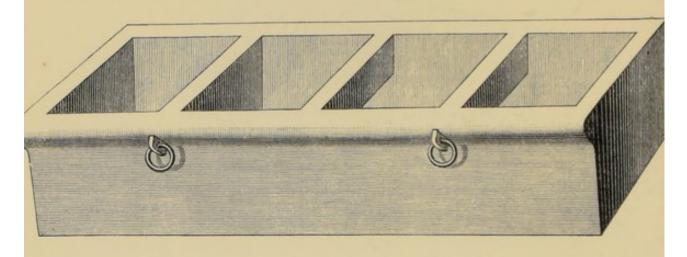
PRICES.-Motor underframe, £640. Dust Body, £60; Watering Body, £50.

Manufactured by Thornycroft Steam Wagon Co., Ltd., Homefield, Chiswick, W. Works: Basingstoke, Hants. DIVISION C.—CLASS II.—Section 13. Miscellaneous Sanitary Goods. (Continued.)

Glazed Stoneware Manger.

Bronze Medal, 1898.

To Oates & Green, Ltd.



Sizes.—Made in any lengths up to 6 ft. 6 in. long.

PRICES. -Ordinary pattern, as illustrated, 6s. per lineal foot. A heavier pattern made specially for draft horses, 7s. per lineal foot.

Manufactured by OATES & GREEN, LTD., Halifax.

Air-tight Soil Pail.

Bronze Medal, 1889.

To W. Bennett & Co., Worcester.

## CLASS III.—HEATING, LIGHTING, AND VENTILATING.

DIVISION C .- CLASS III .- Section 1. Heating Apparatus.

\* Chemical Heat Retainers.

Bronze Medals, 1889 and 1890.

To Peters, Bartsch & Co.

\* Lloyd's Winchester Grate.

Bronze Medal, 1889.

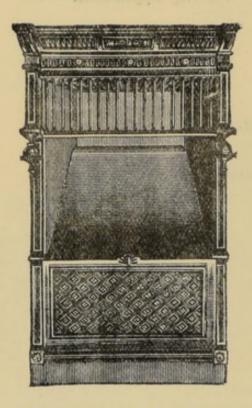
To THE WORCESTER SANITARY AND VENTILATING CO.

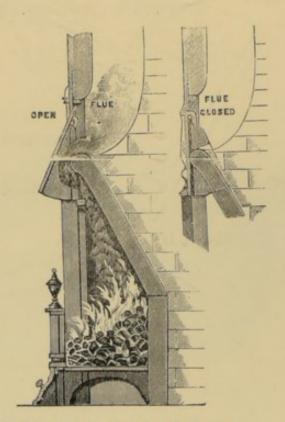
\* See Note on Page 20.

## Marlborough Grate.

Bronze Medal, 1889.

To J. WARD & SONS.





DESCRIPTION.—In the construction of this Grate the brick back constitutes a heating surface, and is made to project over the fire to deflect the heat. The projecting canopy is removable and adjustable, so as to give access to the chimney for building up the back of the fire, and for sweeping the chimney.

Sizes.—Made with 12 in., 15 in., 18 in., 21 in., or 24 in. fires.

PRICES.-From £1 17s. 6d.

Manufactured by STEEL & GARLAND, Wharncliffe Works, Sheffield; Show Rooms, 9, Cork Street, Bond Street, London, W.; and Priory Foundry, Worksop, Notts.

Eagle Grate.

Bronze Medal, 1890.

To THE EAGLE RANGE AND FOUNDRY CO.





Description.—By means of Regulating Doors in front the fire can be made to burn fast or slow, and it can be used as an open fire or a closed stove.

Sizes.—In all sizes to fit existing or new Mantelpieces.

PRICES.—From £5 to £20 in Black, Bronze, and Brass.

Manufactured by The Eagle Range and Foundry Co., 176, Regent Street, W.

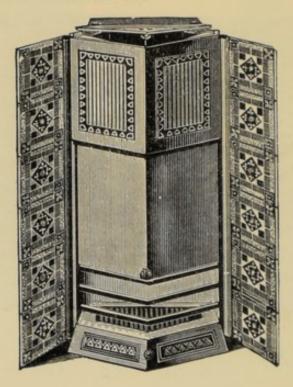
No. 35 Eagle Regulator, for Regulating Draught to Eagle Open Firegrate.

Bronze Medal, 1892.

Eagle Grate.

Bronze Medal, 1894.

TO EAGLE RANGE AND FOUNDRY CO.



DESCRIPTION.—When the regulating shutter is raised at its highest it becomes a slow combustion Grate. When it is desired to increase the speed of combustion the shutter is lowered as much as may be found necessary; or in lighting the fire it can be lowered until it rests on the front fire bars, as in the illustration. The shutter can be fixed at any position required.

Manufactured by Eagle Range and Foundry Co., 176, Regent Street, and 58, St. Paul's Churchyard, London; 2, St. Augustens Parade, Bristol; Works, Catherine Street, Aston, Birmingham.

#### Decorative Glazed Faience Fire-places.

Silver Medal, 1890.

TO BURMANTOFT'S WORKS, THE LEEDS FIRECLAY CO., LTD.

Sizes.-Width of Grates, 15 in., 18 in., 21 in., and 24 in.

Manufactured at Burmantoft's Works, The Leeds Fireclay Co., Limited.

\* Stoves, Mantelpieces, and Brass-work.

Bronze Medal, 1890.

To C. G. REED & Son, 26, North Street, Brighton.

\* See Note on Page 20.

Open Grate with Hollow Bars for Hot Water Circulation.

Bronze Medal, 1894.

To RENTON GIBBS & Co., LIMITED.



Description.—An ordinary sitting-room fireplace with pipes fitted across the back of the fire and also as bars, as shown in Fig., forming a boiler as well as an open fire. Pipes or radiators in bedrooms may be connected with this coil so that they can be warmed by a circulation of hot water, and three or four bedrooms may be warmed from the dining-room or study fire in this way.

Size.—Grate front measures 42 in. × 36 in.

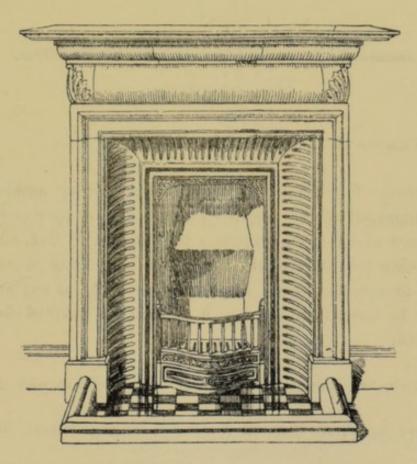
PRICE.-£5 5s. unfixed.

Manufactured by Renton Gibbs & Co., Limited, Mill Street Works, Liverpool.

## Glazed-ware Mantelpiece.

Bronze Medal, 1894.

To Doulton & Co.



DESCRIPTION.—Made in Glazed-ware in any colour to harmonise with style of decoration.

SIZES .- Three; for 12 in. fire, 15 in. fire, and 18 in. fire.

PRICE.—Complete with Iron Grate, Glazed-ware Mantel, Oak Shelf, Fender and Hearth, £6 4s., 12 in. fire. Other patterns as required.

Manufactured by Doulton & Co., Lambeth, London, S.E.

# Jackson's Grates for Burning Anthracite Coal. Silver Medal, 1892.

To E. A. CLEEVES & Co.

Description.—This Grate is designed for burning anthracite coal. By an arrangement of the flue, the position of a damper (moved easily from the front of the Grate) regulates the draught so that, whether fast or slow burning fuel is used, the fire may be made great or small. The economical advantages claimed for this Grate apply to any sort of coal which may be burned in it; but it is specially adapted for burning anthracite coal.

PRICES.-16 in. fire, 34 in. wide, £3 11s. 6d.; 18 in. fire, 36 in. wide, £3 16s. 6d.

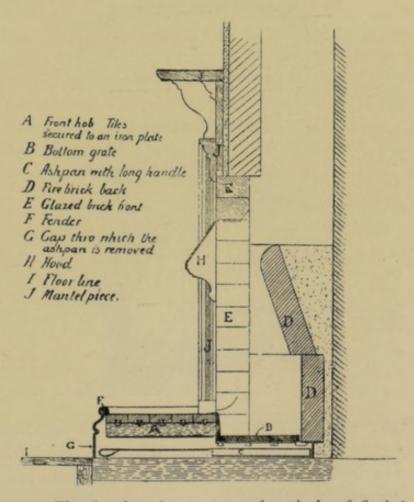
Manufactured by E. A. Cleeves & Co., 3, Mileage Wharf, Westbourne Park Road, W.

Teale's Well Fire. Bronze Medal, 1896.

Raised Hearth and Sunk Fire.

Bronze Medal, 1897:

To EMLEY & SON and THE TEALE FIREPLACE Co. 1896.



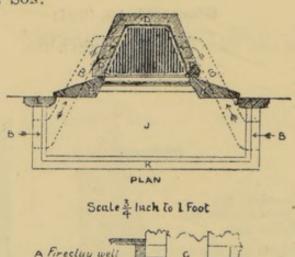
Description.—The fireplace is constructed entirely of firebrick, with the exception of the grate bottom and ashpan; the fire therefore burns in a well of fireclay. The hearth or front hob is raised, thus allowing the ashpan to be withdrawn, and this without the necessity of letting the fire out, and without causing any dust in the room.

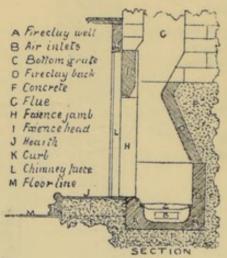
Manufactured by The Teale Fireplace Company, Leeds; and 28, Berners Street, London, W. (Lionel H. Teale and R. Mousley Somers, Partners.)

Bowes Well Fire.

Bronze Medal, 1896.

To H. WALKER & SON.





DESCRIPTION.—This fire consists of a simple fireclay trough, with an iron bottom grate placed about 2 inches from the top, leaving a hot air chamber underneath. This chamber becomes intensely hot. A current of air is admitted through hit and miss ventilators placed in the fender ends, and passed through a channel formed underneath, into the ends of the trough. A supply of superheated air is passed through the fire at will.

Sizes.—From 18 ins. to 3 ft. 6 ins. wide, or made any odd size.

PRICES.-From £2 10s, up to £50.

Manufactured by HY. WALKER & SON, LIMITED, Newcastle-on-Tyne.

Open Gas Fire.

Bronze Medal, 1890.

To CHARLES WILSON & SONS.

DESCRIPTION. Metal Gratings of peculiar construction are placed between the bars in front and a Corrugated Fire-Brick Slab at the back of the fire. The iron bars are raised to a glowing heat by a series of Bunsen flames, and the heat reflected into the room by a Fire-Brick Slab. The fire can also be fitted on the hearth in front of the bars of a grate, on the tops of the bars, inside the grating, or on the Stands or Pedestals. The Burners are of an atmospheric type.

Sizes.—11 in. wide, 15 in. high; 13 in. wide, 15 in. high;  $15\frac{1}{2}$  in. wide, 15 in. high; 19 in. wide, 16 in. high.

PRICES.-£1 1s., £1 5s., £1 10s., £2.

Manufactured by Wilsons & Mathiesons, Limited, Gas Stove Department, Armley, Leeds.

\* Marsh-Greenall Regenerating Gas Heating Stove.

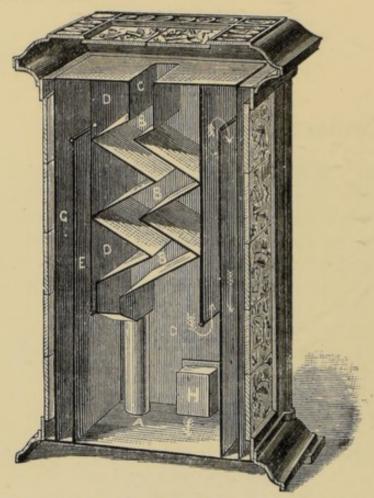
Bronze Medal, 1890.

To GREENALL & Co.

\* See Note on Page 20.

Thermo Hygienic Gas Stove. Bronze Medal, 1892.

To DAVIS GAS STOVE Co.



Description.—The interior is designed so that the greatest amount of heat may be extracted from a given quantity of gas before the products of combustion are allowed to escape to the outer air. The fresh air is drawn through the fresh air inlet A, and warmed in its passage by passing into the heating chamber B (surrounded by the chamber D). The warmed fresh air rising in the room from the outlet C causes a large proportion of the air vitiated by breathing to descend, and is then drawn in by the burner in front of A, and carried off by means of the chamber D to the ascending flue E and descending flue G to the burnt air outlet H, from which it is carried outside the building. Fitted with an arrangement so that the gas cannot be turned on before the burner is drawn out for lighting.

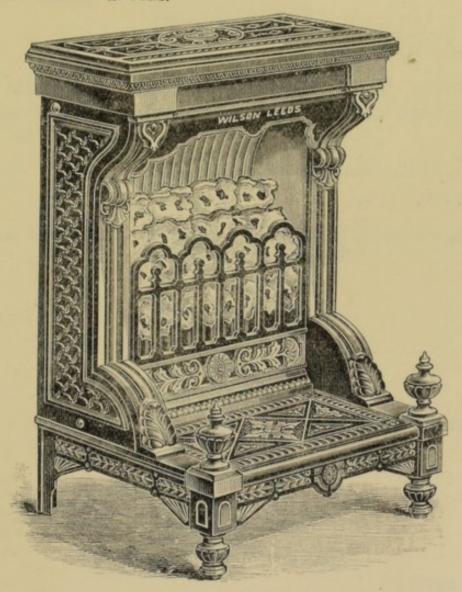
Sizes.—Outside measurements, 2 ft. 5 in. high, 1 ft. 7 in. wide, 1 ft.  $3\frac{1}{2}$  in. deep. 2 ft.  $10\frac{1}{2}$  in. high, 1 ft. 10 in. wide, 1 ft.  $5\frac{1}{2}$  in. deep. 3 ft.  $3\frac{1}{2}$  in. high, 2 ft.  $0\frac{1}{2}$  in. wide, 1 ft.  $6\frac{1}{2}$  in. deep.

PRICES .- £4 16s., £6 15s., £8 15s. 6d.

Manufactured by The Davis Gas Stove Co., Limited, Camberwell, S.E.

Canopy Gas Stoves. Bronze Medal, 1896.

To CHARLES WILSON & SONS.



DESCRIPTION.—This stove is designed to fit the present pattern of register coal grate with canopy. The base is ornamented with a Burmantofts hand-painted tile. The burned air from the fire is conducted to the front of the stove, and then passes through a hollow top to the nozzle at the back. The top is perforated with tubes through which air is heated in passing into the room.

Sizes.—No. 1, Base 11 in.  $\times$  14½ in.  $\times$  20 in. high. No. 2, Base 11 in.  $\times$  17 in.  $\times$  20 in. high.

PRICES.-No. 1, £1 17s. 6d. No. 2, £2 2s. 6d.

Manufactured by Wilsons & Mathiesons, Limited, Gas Stove Department, Armley, Leeds.

Gas Kettle.

Bronze Medal, 1890.

To CHARLES WILSON & SONS.

DESCRIPTION.—This is a strong Copper Kettle, placed within a Cast Iron Case, which is attached to a powerful atmospheric Gas Burner by a hinge.

Sizes.—1 Gallon and 2 Gallons.

PRICES.-15s. £1 5s.

Manufactured by Wilsons & Mathiesons, Limited, Gas Stove Department, Armley, Leeds.

\* Cyclone Geyser.

Bronze Medal, 1892.

To T. BAILEY, JUNE.

Steam Bath Heater.

Silver Medal, 1894.

To Doulton & Co.

DESCRIPTION.—When the Bath has been filled with water, the steam being turned on draws water from the Bath through a small tube; this water, mixing with the steam, partly condenses it, gets warmed, and is returned to the bath.

SIZE .- 5 ft. × 5 ft.

PRICE. - £5 5s. to £9.

Manufactured by Doulton & Co., Lambeth, London, S.E.

\* See Note on Page 20.

Self-Feeding Circulating Boiler.

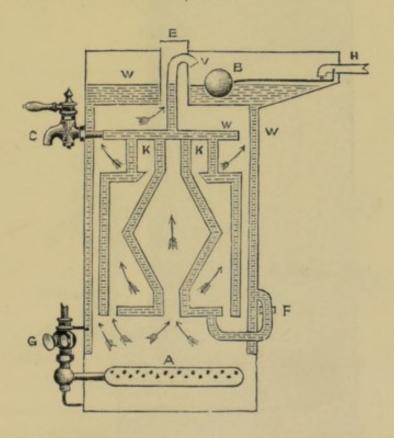
Bronze Medal, 1897.

Jackson's Self-Feeding Water Boiler.

Bronze Medal, 1898.

To H. JACKSON.

To ECLIPSE BRASS AND COPPER CO, LTD.



DESCRIPTION.—V, safety pipe; E, flue; G, tap with bye-pass to save re-lighting; C, boiling water tap; A, gas burner. Attached to these heaters, if desired is an automatic heat regulator, which shuts off or turns on the supply of gas as the temperature rises or falls below that required.

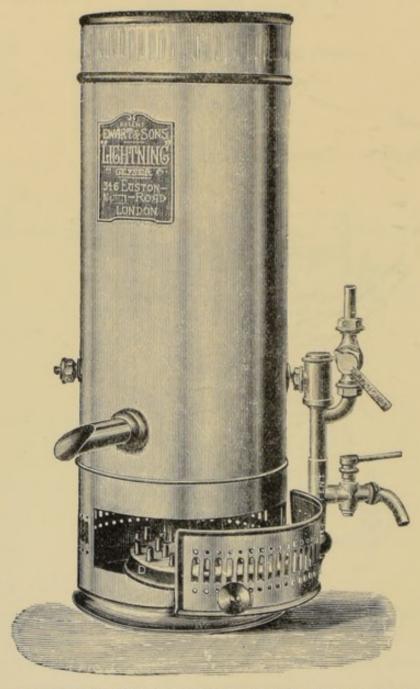
Size.—Height 32 in., diameter 12 in.

PRICES.-£5 to £12.

Manufactured by H. Jackson, Registered Plumber, 134, Westfield Road, Leeds.

Ewart's Geyser. Bronze Medal, 1899.

To Mr. H. J. Holt.



DESCRIPTION.—Ewart's "Lightning" Geyser, made of stout copper, with safety dual tap (so arranged that the gas is lowered when the water is turned off) vent pipe and swing-out burner. Produces hot water at the rate of 3 gallons, or boiling water at the rate of 3 quarts per minute. Hot bath (5 ft. 6 in.) in 8 minutes—

PRICE.—With dual tap and swing-out burner, £9. Other prices, £3 10s., £5, £7, £11, according to size.

Manufactured by EWART & Sons, 348-350, Euston Road, London, N.W.

\* Rosher System of Heating and Circulating Water in Baths.

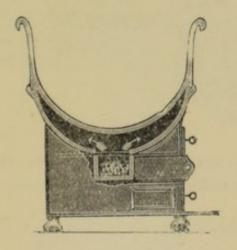
Silver Medal, 1890.

To RAINBOW ENGINEERING Co.

Boiler Bath.

Bronze Medal, 1898.

To Mould's Patent Boiler Bath Co.



Descripton.—Consists of an ordinary bath with a boiler underneath, provided with a damper for shutting off the fire from the bath when the water is at the required temperature. Each bath is fitted with waste pipe, plug, and chain.

Sizes.—Height, 2 ft. 7 in.; length, 4 ft. 10 in.; width, 2 ft. 4 in.; depth,  $17\frac{1}{2}$  in.

PRICES.-From £7 10s., Cottage Bath, to £9 5s. for country mansions.

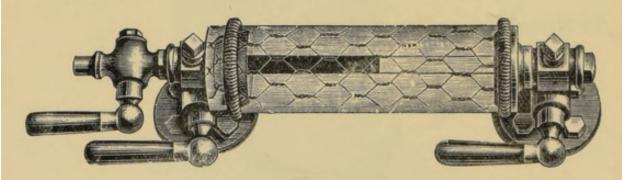
Manufactured by Mould's Patent Boiler Bath Co., 3, Union Passage, New Street, Birmingham.

<sup>\*</sup> See Note on Page 20.

## Glass Strengthened by Embedded Wire.

Bronze Medal, 1896.

To Crosier, Stephens & Co.



Description.—It is made by a patent process from specially toughened glass moulded on wire netting, which thus becomes embedded in it.

Sizes. - From 8 inches long to 20 inches.

PRICES.—18s. 9d. to £1 12s. 3d., with fittings.

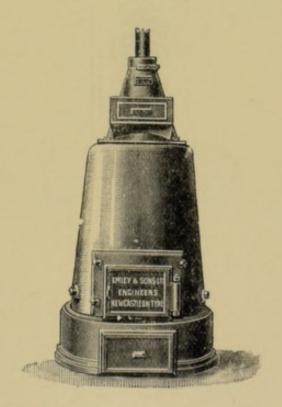
IN PARTS.—Not supplied except complete.

Manufactured by Siemens of Dresden.

Welded Conical Boiler.

Bronze Medal, 1896.

To EMLEY & SON.

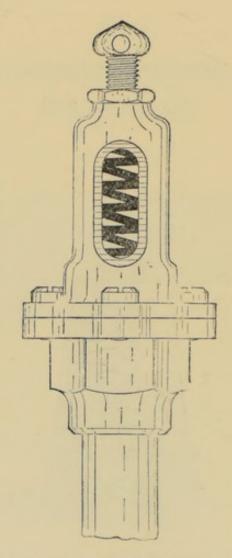


PRICES.—Upon Application.

Manufactured by EMLEY & SON, LIMITED, Westgate Road, Newcastle-upon-Tyne.

## Combined Safety Valve and Fusible Plug. Bronze Medal, 1897.

To W. GOODING.



DESCRIPTION.—This is an ordinary Safety Valve with the addition of a fusible plug which will melt when the boiler becomes over-heated, and thus give an additional safeguard in the event of the valve being fused by corrosion.

Sizes.  $-\frac{3}{4}$  in. 1 in.

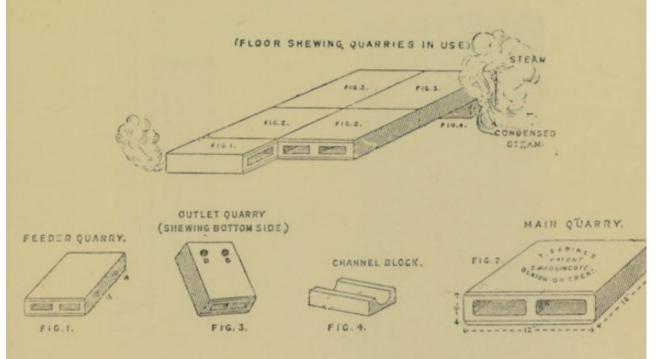
PRICES.— 15s. 18s.

Manufactured by William Gooding, North Road Works, Holloway, London, N.

## Quarries for Heating Drying Sheds.

Bronze Medal, 1898.

To SUTTON & Co.



Description.—The quarries are made in salt-glazed silicated stoneware. The steam enters into the feeder quarry (fig. 1), into the main floor quarries (fig. 2), and thence escaping through the two holes made in the bottom of outlet quarry (fig. 3) into channel block (fig. 4). In laying a drying floor the only requirement is that the ground shall be made level, and the quarries are laid on a thin layer of cement or mortar, and jointed with ordinary cement. No mid-feathers or other blocks are required.

Sizes.—Main quarries,  $18 \times 12 \times 4$  in.; outlet,  $18 \times 12$  in.; feeder,  $6 \times 12$  in.

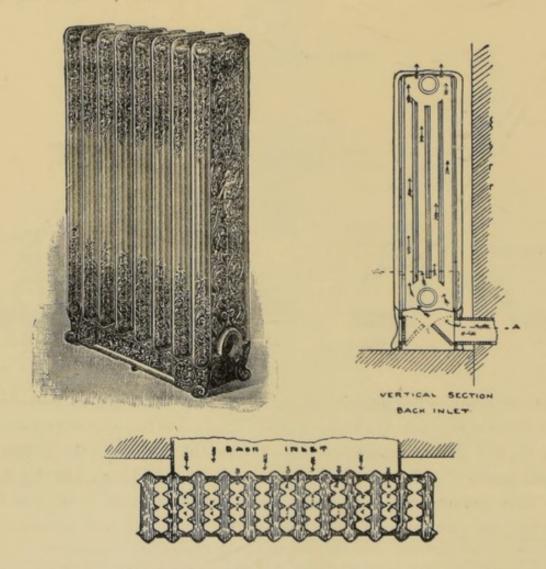
PRICE -1s. per quarry on rail at works, nett.

Manufactured by Sutton & Co., Union Pottery Overseal, near Ashby-de-la-Zouch.

## Low Pressure Ventilating Radiator.

Bronze Medal, 1898.

To A. R. DEAN, LTD.



Description.—Ventilating Radiator for use on steam or hot water system, arranged for admitting fresh air, warming it and passing it into room. Has a valve arrangement for regulating admission of air. The Radiator gives a large area of air inlet.

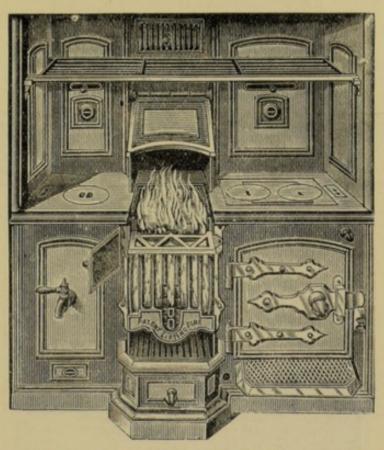
PRICE.—On application.

Manufactured by A. R. Dean, Ltd., Birmingham.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus.

## Herald Kitchen Range. Bronze Medal, 1890.

To J. WARD & SONS.



DESCRIPTION.—It is Constructed with an Improved Lifting Bottom Grating which works upon two Projecting Studs underneath the Grate. The fire is shallow from back to front, and the Range is made with combined open and close fire. The Hot Plates over the fire are made to slide back. There is also a Cinder Sifter under the fire.

SIZE.-4 ft.

PRICE. - £16 58. 6d.

Manufactured by R. Russell & Sons, Peel Foundry, Derby.

\* Badger's Kitchener. Bronze Medal, 1889.

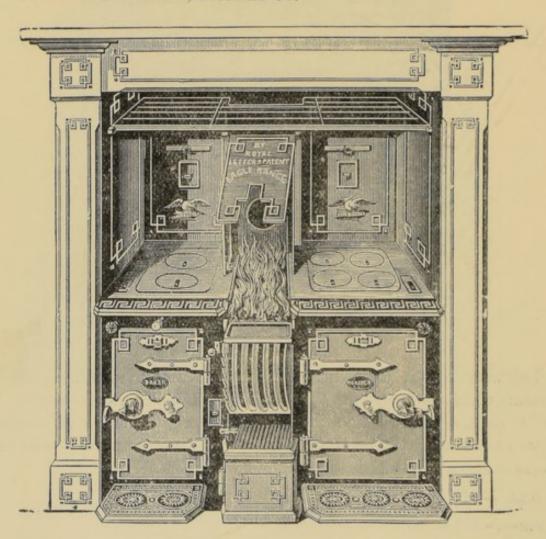
To Worcester Sanitary and Ventilating Co.

\* See Note on Page 20.

## Improvements in Eagle Ranges.

Bronze Medal, 1892.

To THE EAGLE RANGE AND FOUNDRY CO.



DESCRIPTION.—The size of the fire can be increased or diminished as required. It can be used as an open range, as shown in the sketch, or made into a close stove by closing the hot plate over the fire, and closing the doors of the smoke hood at the back.

Sizes.—In sizes from 2 ft. upwards.

PRICES.-From £4 10s. to £150.

Manufactured by The Eagle Range Co., 176, Regent Street, London, W.

DIVISION C.—CLASS III.—Section 2. Cooking Apparatus. (Continued.)

Indicating Damper to Eagle Range.

Bronze Medal, 1892.

TO EAGLE RANGE AND FOUNDRY CO.



Description.—This shows on the front of the Range exactly at what draught the Range is working by indicating the position of the damper.

PRICE.—6s. 6d. per damper.

Manufactured by Eagle Range and Foundry Co., 176, Regent Street, and 58, St. Paul's Churchyard, London; 2, St. Augustens Parade, Bristol; Works, Catherine Street, Aston, Birmingham.

New Ventilator and Draught Regulator, attached to Eagle Range.

Bronze Medal, 1896.

TO H. WALKER & SON.

Description.—This ventilating Hood is attached to the front of the Range above the covering-in-plate. On the inside (near the top) are a series of ventilating holes, leading direct into the chimney flue. These are opened or closed at will, by means of a throttle valve. The smell of cooking from the ovens and hot-plate, after passing through the plate-rack, and coming out underneath the covering-in-plate, is drawn up into this hood, and so carried direct into the chimney. The throttle valve, which opens and closes this flue, has an indicator at the front, by which the cook is enabled to open or close this at will, and in so doing can regulate the draught of the Range to suit requirements. As this Ventilator allows the air to go direct into the flues, when the damper is open, the draught is checked; when closed it is increased, and can, of course, be fixed in any position midway between those two points.

Sizes,—For Ranges 4 feet wide and upwards.

PRICE.—About £5. List according to size.

Manufactured by The Eagle Range & Foundry Co., Limited, Catherine Street, Aston, Birmingham.

## Grecian Kitchen Range. Bronze Medal, 1892.

To PARKHOUSE IRON Co.

Description.—Fitted with two doors and canopy, open and close fire, arge oven on left hand, coves, and best plate-rack. Hobs or hot-plate 5 in. thick. Long damper Rods and knobs, ashpit lining. Back boiler flue, cinder sifter to ashpan, cone ventilators, bright edge to roof-plate, sliding fire cover, round loose fire bars.

Size.—42 in.  $\times$  26 in.  $\times$  56 in.

PRICE.-

Manufactured by Parkhouse Iron Co., Falkirk, N. B.

## Dow's Kitchen Range.

Bronze Medal, 1890.

To PARKHOUSE IRON Co.

Description.—Double oven reversing flue to large oven. Hobs \(\frac{3}{4}\) in. thick, coves and polished plate-rack. Bright moulding on front of roof-plate and edges of coving. Two cone ventilators, ashpit linings, ashpan with cinder sifter, patent back boiler flue, dampers with rods and knobs, heavy fire cover, cups and rings, round loose bars, hobs ground, and range Berlin blacked.

Size.—60 in.  $\times$  30 in.  $\times$  60 in.

PRICE.

Manufactured by Parkhouse Iron Co., Falkirk, N.B.

## "Dublin" Kitchen Range.

Bronze Medal, 1892.

To PARKHOUSE IRON Co.

Description.—Fitted with two doors and canopy, open and close fire arrangement, double oven, large oven with reversing flue, covings with brown and white tiles, having polished plate-rack. "Eagle" fire, with polished front and heavy fall-bar (bottom fitted to drop ashes through), ashpit with linings, and cinder sifter to ashpan. Heavy fire cover with cups and rings. Heavy hobs, roof-plate with two cone ventilators. Dampers with long rods and knobs, sliding fire cover, patent back boiler flue.

Size.-54 in. × 30 in. × 60 in.

Manufactured by PARKHOUSE IRON Co., Falkirk, N.B.

DIVISION C.—CLASS III.—Section 2. Cooking Apparatus. (Continued.)

## Neville Cooking Range with Baking Oven.

Bronze Medal, 1896.

To EMLEY & SONS, LIMITED.

DESCRIPTION.—Consists of high oven, on Yorkshire principle, for bread baking, low sheet-iron roasting oven, roaster, open and close fire arrangement, panelled hot plates.

Sizes .- 4 ft. 4 ft. 6 in. 5 ft. 5 ft. 6 in. 6 ft.

PRICES.-£15 2s. 6d. £15 19s. £18 3s. £20, 18s. £24 4s.

Manufactured by EMLEY & SONS, LIMITED, Westgate Road, Newcastle-on-Tyne.

\* Leggott & Marsh's Smoke Consuming Fire.

Bronze Medals, 1892 and 1896.

To THE ECONOMIC SMOKELESS FIRE CO.

Improved Hydraulic Roasting Jack.

Bronze Medal, 1894.

To KILLICK & COCHRAN.

Sizes .- To suit requirements.

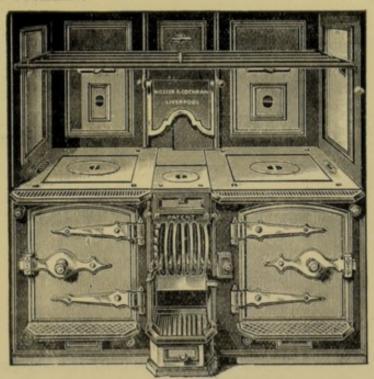
PRICES .- Accordingly.

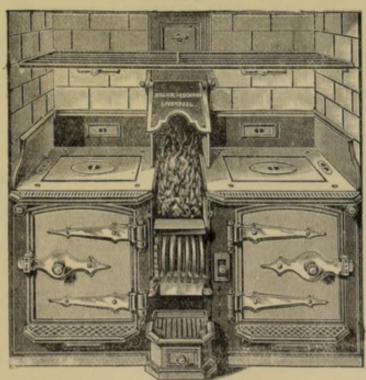
Manufactured by KILLICK & COCHRAN, 53, Seel Street, Liverpool.

\* See Note on Page 20.

Ideal Kitchen Range. Bronze Medal, 1894.

To KILLICK & COCHRAN.





Description.—This Range can be converted from close to open fire and vice versā. It has a rising and falling bottom to make fire deep or shallow as required. It has bottom heat to oven. Super-heated fresh air is passed through the ovens, thus ensuring perfect washing and baking. The front bars are hinged, so as to afford facility for clearing out boiler flue.

PRICE.-From £8 10s. upwards.

Manufactured by Killick & Cochran, 53, Seel Street, Liverpool.

DIVISION C.—CLASS III.—Section 2. Cooking Apparatus. (Continued.)

## Hotspur Cooking Range.

Bronze Medal, 1896.

To Elswick Court Marble Works Co.

DESCRIPTION.—Has a low continuous hot hob, which gives a large amount of pan room. The oven casing is made of strong cast metal, lined with fireclay quartes, and the oven is made of sheet iron. Made with open or open and close fires.

Sizes.—4 ft.  $\times$  4 ft. 6 in. up to 5 ft.  $\times$  6 in. by 5 ft.

PRICE.—Average size, 4 ft. 6 in.  $\times$  4 ft. 6 in.,  $\pm$ 6.

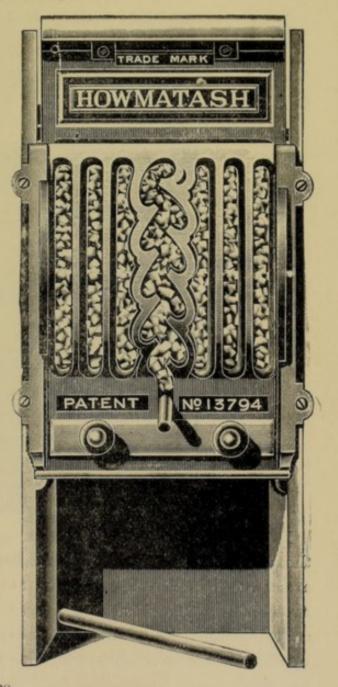
Manufactured by Elswick Court Marble Works Co., 39, Northumberland Street, Newcastle-on-Tyne.

Fryston Lifting Fire Kitchener.
Bronze Medal, 1897.

To FERRYBRIDGE FOUNDRY Co.



Description.—The special features of this Kitchener are, first—that it has a lifting fire that can be increased or diminished, hid, or exposed for roasting in front, without altering the relative efficacy of either top or bottom heat in the ovens and on the hot plates, or interfering with the supply of hot water from the boiler; second—that the lifting fire-grate cannot slip from its place.



Sizes.—From 3 ft. 6 in. wide × 4 ft. 6 in. high, to any size required with any number of ovens.

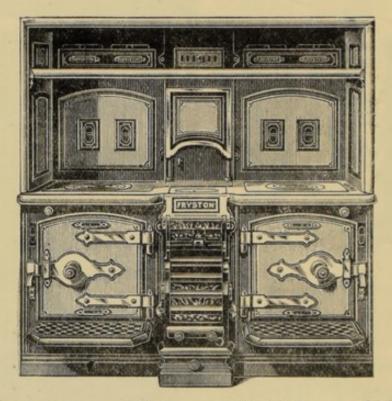
PRICES.—4 fr. 0in.  $\times$  4 ft. 6in. with two ovens £14 11s. 0d., subject to discount, Parts.—Very many parts, but usually sent out in two crates.

Manufactured by The Ferrybridge Foundry Co., Ferrybridge, Yorkshire

Fryston Duplex Fire Kitchener. Silver Medal, 1897.

> Fryston Range. Silver Medal, 1898.

TO FERRYBRIDGE FOUNDRY CO.



DESCRIPTION.—The special features of this kitchener, which is shown in the drawing is of the London or Leamington type, having one or more low ovens with hot plate and plate-rack above them, are: 1st, That there are two fires in one fire-basket, one placed above the other; 2nd, That there are two distinct sets of flues to each oven, and a separate fire to each set, by which means an amount of heat is obtained in the bottom of the ovens, and either top or bottom heat is increased or diminished at will, in a few minutes.

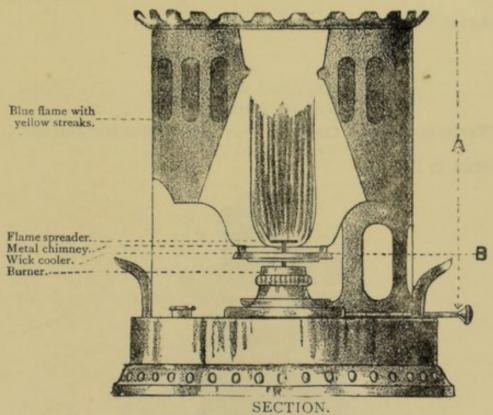
Sizes.—From 3 ft. 6 in. wide × 4 ft. 6 in. high to any size required, with any number of ovens.

PRICES.-4 ft. 6 in. × 4 ft. 6 in., with two ovens, £14 3s. 6d., subject to discount.

Manufactured by The Ferrybridge Foundry Co., Ferrybridge, Yorkshire.

## Defries Petroleum Cooking Stove. Bronze Medal, 1889.

To G. HARRISON.



SECTION.
Shewing flame at full power.

Description.—The object is to burn air with gas generated from oil, so as to produce a blue flame without throwing off smoke or smell. The wick is surrounded with a ring of peculiar construction, that causes a large volume of air to be drawn over the wick, thus preventing the outer surface of the wick from getting alight; the outer surface thus gives off gas which is burned on the top of the wick in combination with the air that has passed over the wick.

SIZE.—Height, 11 in. PRICES.—From 17s.

Manufactured by The Metropolitan Light Company, 170, Shaftesbury Avenue, London, W.C.

\* The "Beacon" Gas Cooker. Silver Medal, 1890.

To Freeman, Emery & Co.

<sup>\*</sup> See Note on Page 20.

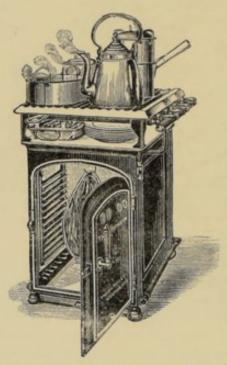
\* Artizan Gas Cooker. Bronze Medal, 1890.

To FREEMAN, EMERY & Co.

Westminster Gas Cooker. Bronze Medal, 1890.

Westminster Gas Cooking Stove, with Bunsen Burner. Bronze Meda!, 1892.

To W. Sugg & Co.



Description.—The Oven is ventilated, and lined with Special Double Enamelled Iron Plates. The top of the Oven, under the Hot-plate, is fitted with Sugg's Enamelled Ribbed Top-plate; this also is specially enamelled pure White. These Kitcheners can, therefore, always be cleaned immediately after use, and an offensive accumulation of grease and dirt is consequently prevented. The Burners in the Oven are made of the luminous, or atmospheric, type, and those of the Hot-plate are always atmospheric.

Sizes.—High—30 in., 31 in., 34 in., 35 in., and 38 in. Wide—18 in., 20 in., 22 in., 24 in., and 31 in. Deep—16 in., 18 in., 21 in., 22 in., and 29 in.

PRICES.—£4 17s. 6d., £5 14s., £6 15s., £7 17s. 6d., to £15 15s.

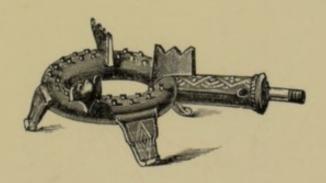
Manufactured by William Sugg & Co., Vincent Works, Westminster.

<sup>\*</sup> See Note on Page 20.

## Gas Ring.

Bronze Medal, 1892.

To DAVIS GAS STOVE COMPANY.



Sizes.—Ring  $4\frac{1}{2}$  to 6 ins.; Outside diameter  $5\frac{1}{2}$  to 8 ins.

PRICES.-1s. 3d. to 2s. 6d.

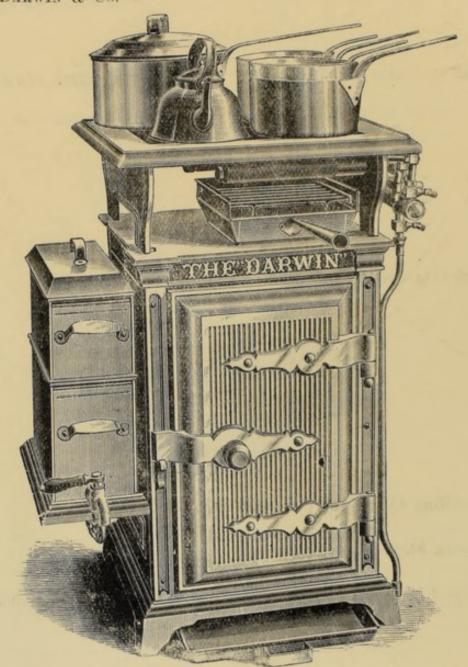
Manufactured by The Davis Gas Stove Co., Limited, 200, Camberwell Road, London, S.E.

DIVISION C.—CLASS III.—Section 2. Cooking Apparatus. (Continued.)

The Darwin Gas Cooking Stove.

Bronze Medal, 1892.

To H. DARWIN & Co.



Description.—Enamelled steel interiors, enamelled Hot Plates, oscillating Griller, corrugated fire-brick top, and hooded gas jets.

Sizes.—Inside dimensions of Oven:  $12 \times 12 \times 22$  ins. to  $21 \times 18\frac{1}{2} \times 32$  ins. PRICES.—£4 4s. to £11 18s. 6d.

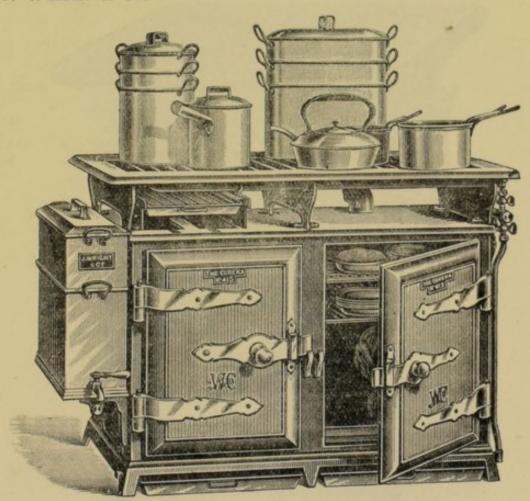
Manufactured by Watson Gow & Co., Etna Foundry, Glasgow.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued.)

### Eureka Gas Cooking Stove.

Silver Medal, 1892.

To J. WRIGHT & Co.



Description.—Made of cast and wrought iron, the bodies being formed of steel plates, coated with enamel; double-cased, and jacketed on the sides, back, and door with a non-conducting material. The top of the oven is formed of fire-brick, over which the waste heat passes. The brick thus becomes heated to a high temperature. The hot-plate is formed of steel bars, which being loose can be removed for cleaning. The burners are of the atmospheric type.

Sizes.—Inside Dimensions of Roaster: 12 to  $20\frac{1}{2}$  ins. wide; 12 to  $19\frac{1}{2}$  ins. deep; 22 to  $30\frac{1}{2}$  ins. high. Hot-plate: 20 to 31 ins. wide;  $16\frac{1}{2}$  to 28 ins. deep. No. of Burners on Hot-plate: 3 to 7.

PRICES.—Cast Iron: £4 4s. to £12. Enamelled Steel: £4 14s. 6d. to £13 10s.

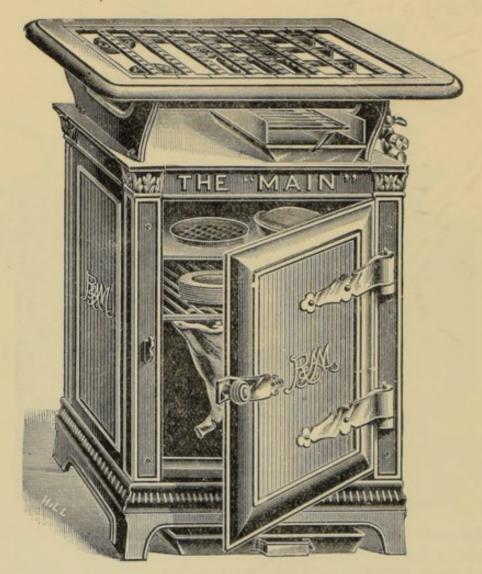
Manufactured by John Wright & Co., Ltd., Essex Works, Birmingham-

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued.)

"Main" Gas Cooking Stove.

Bronze Medal, 1892.

To R. & A. MAIN, LTD.



Description.—Constructed of cast iron outside, and enamelled steel sheets inside. Double-cased and jacketed with slag wool. Fitted with double grill, allowing one-half only to be used when required.

Sizes.—Inside dimensions of oven:  $11\frac{1}{2}$  to  $23\frac{1}{2}$  ins. wide;  $11\frac{1}{2}$  to 20 ins. deep;  $23\frac{1}{2}$  to 32 ins. high. Hot-plate:  $18\frac{1}{2}$  to 33 ins. wide;  $18\frac{1}{2}$  to 29 ins. deep. No. of burners on hot-plate: 3 to 8.

PRICES .- £4 12s. 6d. to £13 10s. 0d.

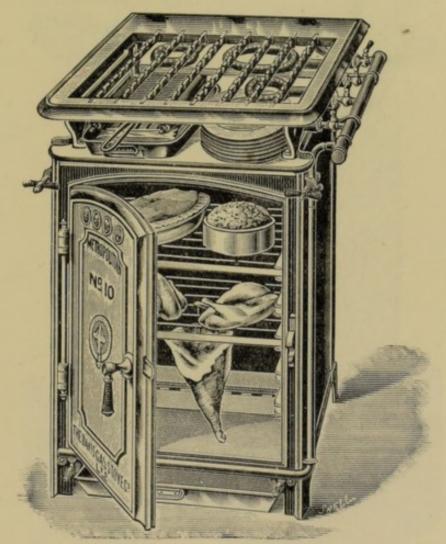
Manufactured by R. & A. Main, Ltd., 214, St. John Street, London, E.C., and Gothic Inn Works, Falkirk.

DIVISION C.-CLASS III.-Section 2. Cooking Apparatus. (Continued.)

Enamelled Metropolitan Gas Kitchener. Silver Medal, 1896.

> Metropolitan Gas Cooker. Silver Medal, 1897.

To the DAVIS GAS STOVE COMPANY.



Description.—It is fitted with cast iron exterior, and internally with porcelain flexible enamel plates, with white enamel-top plate and cast burners. It is double-cased, and surrounded with a non-conductor; self-closing door with brass mounted ebony handle. The shelves can be adjusted to any distance without altering the supports, and the latter can be detached for washing out the interior. The hot plate is fitted with various sizes of atmospheric burners, and provided with economiser bars for supporting the vessels, allowing nearly the entire bottom of the utensils to be in contact with the flame, and permitting a free passage of air over them. Each roaster is fitted with a ventilating valve, also a regulating jet on both sides for adjusting gas to any pressure, and to allow of burners being easily cleaned. No. of burners on hot plate, 1 to 7.

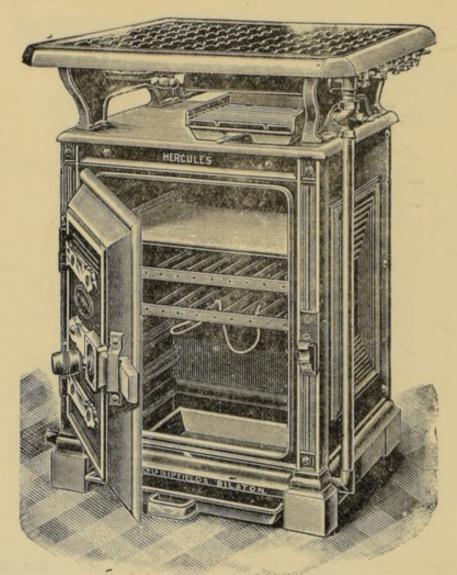
PRICES.—From £4 8s. 3d. to £17 3s. 0d.

Manufactured by The DAVIS GAS CO., LIMITED, Camberwell, S.E.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Cont.)

Hercules Gas Cooker. Bronze Medals, 1896 and 1897.

To CANNON HOLLOW WARE Co.



DESCRIPTION.—The Cooker is made of cast iron, and fitted with our special "Porceliron" linings. They are double cased, and the sides, back, and door are jacketted with a thick layer of non-conducting material. The hot plate is fitted with loose cast iron burners, easily removed for cleaning purposes. The top bars are made in sections for access to burners.

Size.—36 in. high.

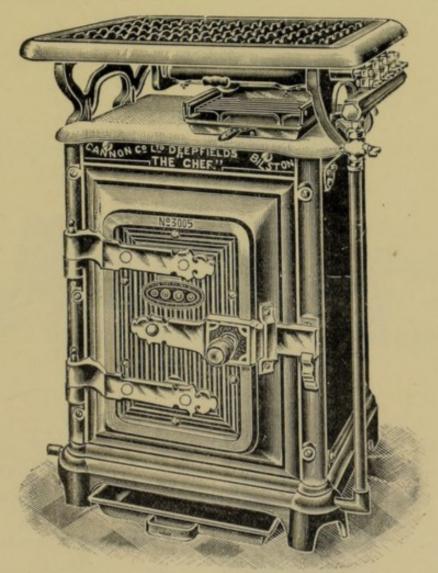
PRICES.-From £4 12s. 6d. to £14 5s.

Manufactured by CANNON IRON FOUNDRIES, LIMITED, Deepfields, Bilston, Staffs.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued.)

"Chef" Gas Cooker, Bronze Medal, 1898.

To CANNON HOLLOWWARE CO., LAD.



Description.—Double cased and packed with non-conducting material. Hot plate is fitted with a series of boiling burners and also improved patented griller burner with upper and lower chambers controlled by separate taps, thus dispensing with the necessity for any mechanical arrangement for adjusting deflector plate. The oven has removable burners for convenience in cleaning, &c. The interior oven linings are of our special "Porceliron" production. The crown plate of the cooker is also enamelled white "Porceliron" by same process if required. The outside plates are enamelled steel of a dark green colour.

Sizes.— Nos. 3004 3005 3006

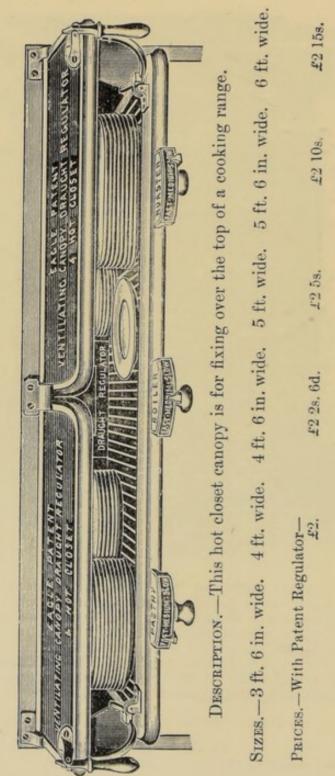
PRICES. £5 15s. £6 10s. £7 13s. 6d. Extra for enamelled crown plate 5s. 5s. 6d. 6s.

Manufactured by The Cannon Iron Foundries, Ltd., Deepfields, near Bilston.

# DIVISION C .- CLASS III. Section 2. Cooking Apparatus. (Continued.)

# Ventilated Hot Closet for Eagle Stove. Bronze Medal, 1898.

TO PARKER, WINDER & ACHURCH.



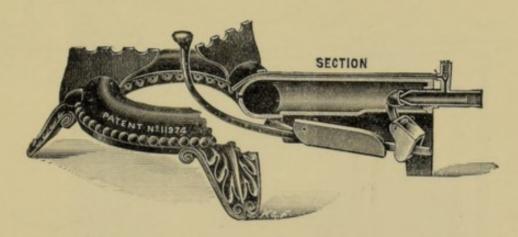
Manufactured by The Eagle Range & Foundry Co., Ltd., Birmingham.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued.)

#### Automatic Gas Stove.

Bronze Medal, 1898.

To DAVIS GAS STOVE Co.



DESCRIPTION.—The stove is arranged with a weighted lever for shutting off the gas; the lever is held down while a saucepan or kettle is standing on the stove, but when the vessel is removed it rises automatically and shuts off the gas.

Sizes.—Outside diameter of ring, 6 in.; size over feet, 8½ in.; length of tail, 5 in. Applicable to all kinds of gas apparatus.

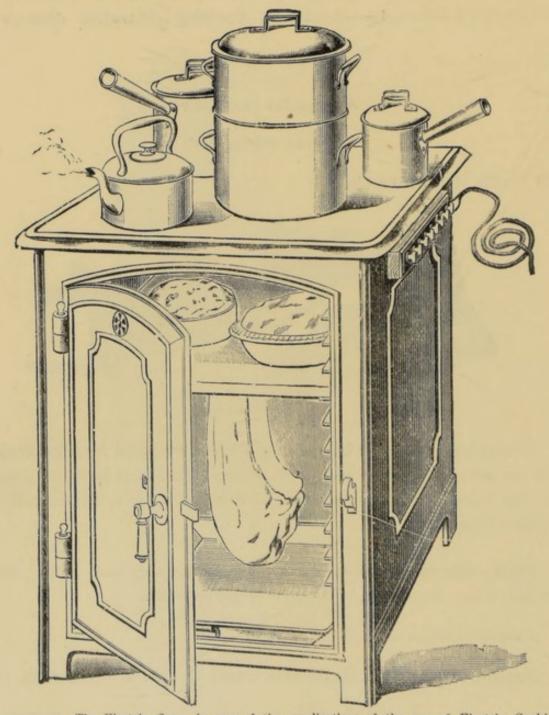
PRICE. -5s. 6d. each.

Manufactured by The Davis Gas Stove Co., Ltd., Camberwell, S.E.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued.)

Apparatus for Cooking by Electricity. Silver Medal, 1892.

To CROMPTON & Co., LIMITED.



Apparatus. As no combustion takes place, the oven is enclosed with the exception of a small opening for ventilation. The inside plates of the oven are heated by electricity and made radiating surfaces, and can be turned on or off at will. When once the oven is heated to the required degree, nearly the whole of the current may be turned off, owing to the fact that a very small amount only is required to make up for loss by radiation. The heated air cannot escape, there being no chimney. To heat up the oven in the first instance with all the switches on, the cost may be more than gas, but atter the first ilfteen or twenty minutes, when the desired heat is attained, the cost of maintaining the over at this heat is very small. The food is cooked in an absolutely pure atmosphere. The principle is also applied to kettles, hot plates, and grills. \*Description.—The Electric Oven is one of the applications of the use of Electric Cooking

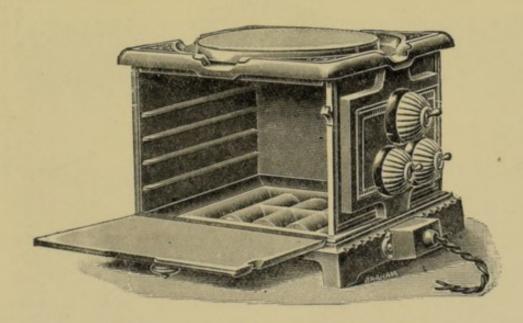
PRICE.—From £7 10s.

Manufactured by Crompton & Co., Limited, Salisbury House, London Wall, E.C., and Chelmsford.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued)

Heating by Means of Electric Wires Bedded in Cement.
Silver Medal, 1894.

To GENERAL ELECTRIC CO.



DESCRIPTION.—The wires are bedded in cement on the surface of metal plates, and heated by the passing of the electric current as in the incandescent lamps. The plates can be arranged inside ovens, or on the bottom of kettles or pans.

Sizes.—10 ins.  $\times$  10  $\times$  8 ins. 100 Volts.

PRICE.-£5.

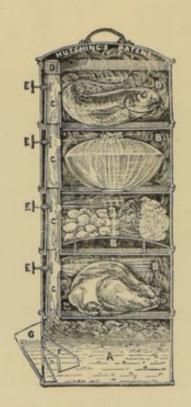
Manufactured by GENERAL ELECTRIC Co., 69, 71, and 88, Queen Victoria Street. London, E.C.

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus. (Continued.)

### Hutchings' Steamers.

Bronze Medals, 1894, 1896, and 1898.

To G. J. HUTCHINGS.



Description.—Each compartment is separate, and one or more cookers may be used. Each compartment is fitted with a Steam Check Valve, by closing which any portion of the dinner is prevented from being overcooked, but is kept hot by the steam in the pipe and compartment above and below it.

Sizes.—Round, 9 ins. dia. to 13 ins. dia.; oval, 13 ins. dia. and 15 ins. dia.

PRICES.—Boiler cover, two cookers, and strainer, round, 8s. 6d. to 19s. 6d.; oval, 8 qts., 19s. 6d.; 12 qts. £1 7s.

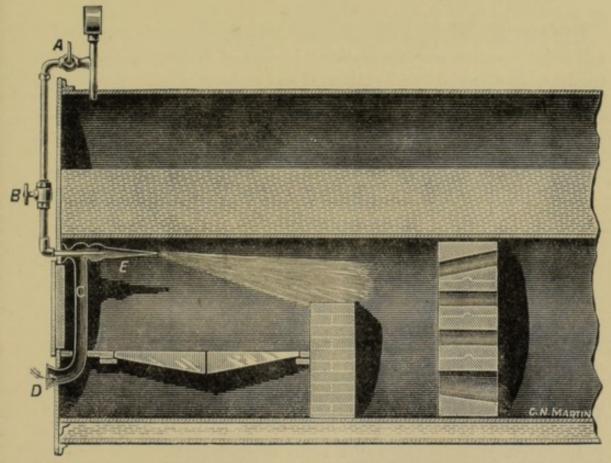
Manufactured by George J. Hutchings, 94, Clerkenwell Road, London, E.C.

DIVISION C.-CLASS III.-Section 3. Smoke Preventing Appliances.

"Invicta" Smoke-Consumer and Fuel Economizer.

Bronze Medal, 1890.

TO THE IMPERIAL SMOKE-CONSUMER CO.



DESCRIPTION.—The Apparatus consists of a Hot-air Injector, E, fitted inside the Furnace. Air is conducted to the body of the Injector by a series of Curved Pipes, C, inside the Furnace, having their Orifices or Inlets, D, below the Dead-Plate and turned outwards. The air is injected over the Furnace by the aid of a small jet of steam which, mixing with the heated air in the body of the Injector, is discharged into the Furnace above the fire-grate, and in the directon of the Bridge, in a dry state.

Size.—It can be adapted to any Furnace.

PRICES.—"Invicta" Hot-air Injector, without Bridge, £8; with Barnes' Sectional Bridge, complete, £12.

Manufactured by The Imperial Smoke-Consumer Co., 69, Falmouth Road, S.E.

# DIVISION C.—CLASS III.—Section 3. Smoke Preventing Appliances. (Continued.)

### Boiler-Covering Bricks.

Bronze Medal, 1890.

TO THE IMPERIAL SMOKE-CONSUMER CO.

Description.—These Bricks are made with Special Studs so as to form a Hot-Air Chamber over the Boiler. In case of leakage in the Boiler or accident, the Covering can be taken off and replaced without deterioration.

Sizes.—The Bricks are 9 in.  $\times 4\frac{1}{2}$  in.  $\times 2\frac{1}{2}$  in. thick.

PRICES .- 3d. each, or 10d. per Super Foot.

Manufactured for The Imperial Smoke-Consumer Co., 69, Falmouth Road, London, S.E.

Barnes' Sectional Bridge for Boilers.

Bronze Medal, 1889.

To The Imperial Smoke-Consumer Co.

Description.—It consists of a series of specially prepared Sections of Fire-Clay, arranged to interlock each other. The Sections or Blocks are so constructed that the hot gases are prevented from being carried too rapidly away, and the Blocks absorbing or retaining the heat impart the same to the surrounding Boiler-Tube, whilst the formation of the orifices in the Sections direct the passing gases and flames to traverse the walls or sides of the Tube.

Sizes.—For Boilers, Tubes, 2 ft. 4in. up to 3 ft. diameter.

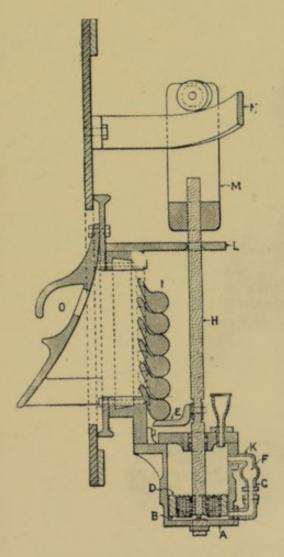
PRICES .- £6.

Manufactured for The Imperial Smoke-Consumer Co., 69, Falmouth Road, S.E.

DIVISION C.—CLASS III.—Section 3. Smoke Preventing Appliances. (Continued.)

## Automatic Smoke Preventer. Bronze Medal, 1893.

TO H. RUSSELL & Co., LTD.



DESCRIPTION.—The apparatus consists of a frame in which is fitted a series of Panels or Venetian Shutters, and the mechanism for automatically raising and lowering same each time the doors are opened for firing, thus enabling a measured supplementary supply of air to be admitted over the fire and shut off immediately necessity ceases.

A-A Cataract Cylinder.

B—Release Valve, held in position by light spiral spring.

C—Special Cock, which regulates the passage of oil through the by-pass, and thereby governing the time the panels fall, according to rate of firing, etc. This is arranged so that once set, can not be tampered with.

D-Holes in the piston to release the oil.

E-Finger, which being fitted into piston rod, rises with same and opens panels

H-Piston Rod.

I—Bulb on panels, which, interlocking opens them simultaneously.

L—Bracket to guide piston rod.

M—Weight, having a wheel in centre of slot, which when door is opened, runs along radius bar, and being attached to piston rod, opens the panels.

N-Radius Bar, bent to the swing of the door, and raised out of horizontal to the extent of lift of panels.

O—Baffle Plate, to prevent damage to apparatus by radiation; HEATS air before entering furnace, and deflects same in two currents to part of fire where best effect is obtained.

Sizes.—Made to replace existing fire door space, and same size.

PRICES.—£25 4s. (Twenty guineas) per boiler, fitted and left in working order.

Manufactured by The Brightside Foundry & Engineering Co., Ltd.,
Sheffield.

\* Improved Fire Bars and Bridge.

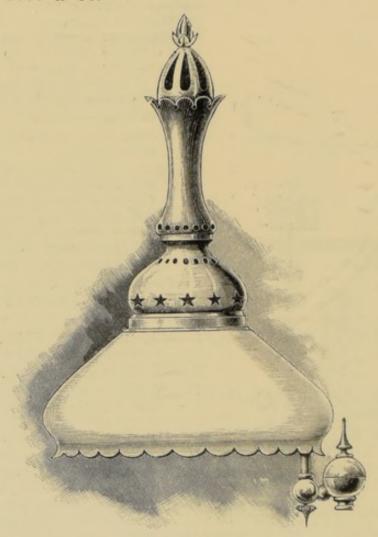
Bronze Medal, 1890.

To J. SMEATON, SON & Co.

<sup>\*</sup> See Note on Page 2).

"Cromartie" Library Lamp. Silver Medal, 1890.

To WILLIAM SUGG & Co.



"Tanjore" Pattern.

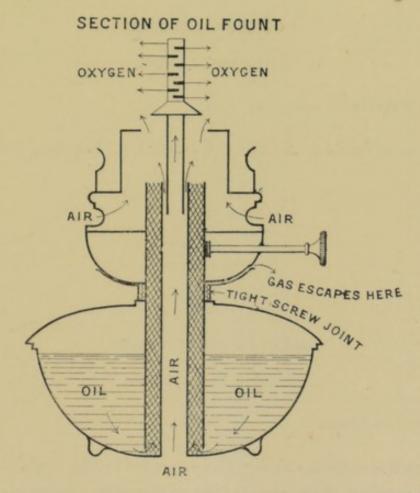
DESCRIPTION.—Suitable for use as a Library Reading Lamp, &c. Can be readily fitted to any pillar, bracket, or pendant. Each Lamp is fitted with a Patent Automatic Governor, for the purpose of correcting any variation of pressure. The Lamp is made in a variety of forms, ventilating and non-ventilating, suited to different requirements. The "Tanjore," shown above, has a Nickelled Body and 10½ in. Albatrine Shade.

Sizes and Prices of "Tanjore" Lamp.—
3 cubic feet (16 candle gas) per hour, £1 10s. 0d.
4 ,, £1 16s. 6d.

Manufactured by William Sugg & Co., Vincent Works, Westminster.

Defries Safety Lamp. Silver Medal, 1889.

To G. HARRISON.



DESCRIPTION.—It consists of an inner tube fixed to the reservoir over which the cotton goes, and to the burner is fixed another tube which goes down over the wick to within one-eighth of an inch of the bottom of the reservoir. Air is admitted into the reservoir from a groove placed outside the burner. The result obtained is that no vapour from the oil can come in contact with the flame. No oil is spilt if the lamp be overturned.

PRICES.-From 1s. 6d. to £9 5s.

Manufactured by The Metropolitan Light Co., 170, Shaftesbury Avenue, London, W.C.

Composite Candles.

Silver Medal, 1894.

To PRICE'S PATENT CANDLE CO., LTD.

Manufactured by Price's Patent Candle Co., Limited, Battersea.

Allison's Safety Lamp.

Bronze Medal, 1894.

To B. RICHARD ISAAC.

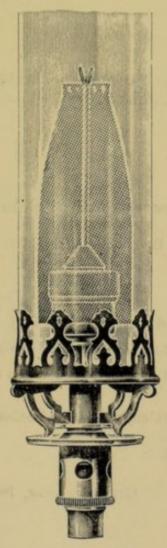
DESCRIPTION.—Allison's Safety Lamp is made in tin, brass, and copper; the body is seamless, being stamped out of one piece. There is an arrangement to prevent the oil escaping when the lamp is upset; and the light is extinguished when the lamp is turned over by an automatic extinguisher that falls over the burner.

PRICES.-From 1s. 9d. each.

Manufactured by B. RICHARD ISAAC, 45, South John Street, Liverpool.

Welsbach's System of Incandescent Gas Light.
Silver Medal, 1894.

To INCANDESCENT GAS LIGHT CO.



DESCRIPTION.—Specially constructed Bunsen Burner, over which is suspended a filament termed the mantle. The gas combines with a certain amount of air in the tube through which it is carried to the top of the burner, where it burns with a non-luminous heating flame. The mantle which surrounds and covers the flame then becomes Incandescent.

PRICES.—C Burner, consuming about 3½ cubic feet per hour, 3s. 6d., with governor. Supplied with Bye pass arrangement.

Manufactured by The Welsbach Incandescent Gas Light Co., Limited, York Street, W., and 14, Palmer Street, Westminster, London, S.W.

### Incandescent Arc Outside Lamp.

Bronze Medal, 1897.

To S. DIXON & SON.

DESCRIPTION.—Enamelled Steel Body and Reflecter. Inner metal chimney so constructed as to make the Lamp wind and rainproof. It is so arranged that the globe can be suspended while attending to burners, &c.

PRICES.—I light with 10½ ins. clear globe and reflector, £2 14s.

2 ,, 14 ins. ,, ,, £3 15s. 3 ,, 15 ins. ,, ,, £5.

Manufactured by S. Dixon & Son, Swinegate, Leeds.

# Anti-Vibration Fittings. Bronze Medal, 1899.

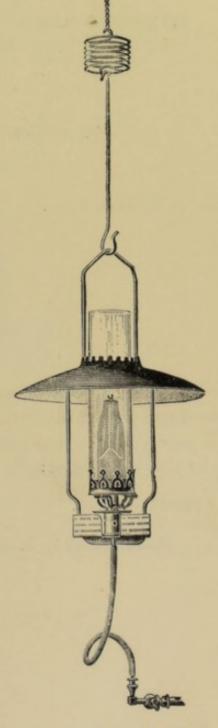
To THE ANTI-VIBRATION INCANDESCENT LIGHTING Co., LTD.



Description—An appliance to prevent the destruction of incandescent gas mantles by suspending the burner in a frame which is connected with a spring at the top, and flexible tubing at the bottom.

Sizes.—Made to fit any incandescent burner.

PRICE.-From 5s.



Manufactured by The Anti-Vibration Incandescent Lighting Co., Ltd., 35, Kirkstall Road, Leeds.

Cup Fittings for Incandescent Gas Lamps.

Bronze Medal, 1897.

To J. Russell & Co.



DESCRIPTION.—Incandescent Mantle Protector for fitting over the top of burner to prevent ill effects from draughts or the splitting of mantles, and to keep the light steady by admitting no air between burner and mantle.

(A) Mantle Protector; (B) Burner.

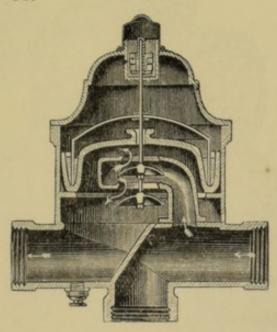
PRICES.-6d. each.

Manufactured by J. Russell & Co., Wellington Street, Leeds.

Mercury Gas Governor.

Silver Medals, 1890, 1894, and 1898.

To JAMES STOTT & Co.



Description.—An inverted Metal Cup, sealed in an annular trough filled with mercury. To the centre of the Cup a spindle is fixed, carrying at its lower end a Double Valve. Increased pressure from the main or fewer lights raises the Cup and partially closes the Valve. Diminished pressure or more lights open the Valve, which is regulated by weights on the upper end of the spindle.

Sizes.—From ½ in. to 8 in., controlling 10 to 5,000 lights.

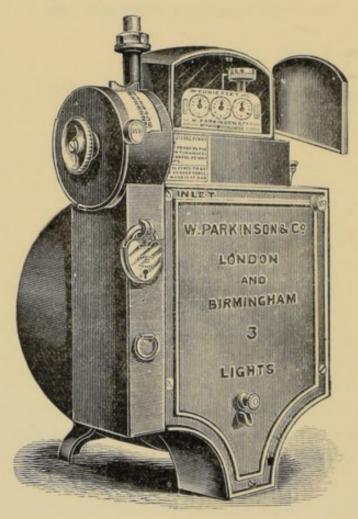
PRICES.—From £1 19s. (1-in.) to £17 11s. 6d. (4 in.).

Manufactured by James Stott & Co., Fleet Street, London, E.C.; and Vernon Works, Oldham.

Penny-in-the-Slot Prepayment Gas Meter.

Bronze Medal, 1898.

To W. PARKINSON & Co.



Description.—For supplying gas in specified quantities on the insertion of a coin. Any number of coins up to 12 may be inserted in rotation, as the gas is consumed other coins can be inserted at any time.

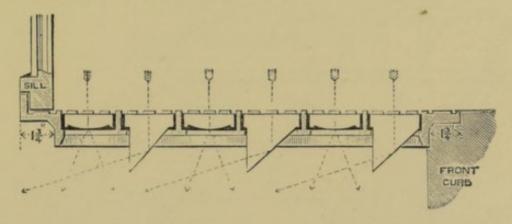
Sizes.—3-light to 30-light meters.

PRICES.—Dry meters, £2 2s. to £4 19s. 7d.; Wet meters, £2 2s. to £7 19s. 2d.

Manufactured by W. Parkinson & Co., Gas Engineers, London and Birmingham.

Semi-Prism Reflecting Pavement and Roadway Lights. Silver Medal, 1890.

To HAYWARD BROS. & ECKSTEIN.



DESCRIPTION.—The Reflecting Prisms throw the daylight in the direction indicated by the arrows, and distribute it over the back portion of the apartment, while the Convex Lenses diffuse the light.

Manufactured by Hayward Bros. & Eckstein, 187, Union Street, Borough, S.E.

> Exhibit of Electric Lighting. Silver Medal, 1890.

To C. G. REED & Son, 26, North Street, Brighton.

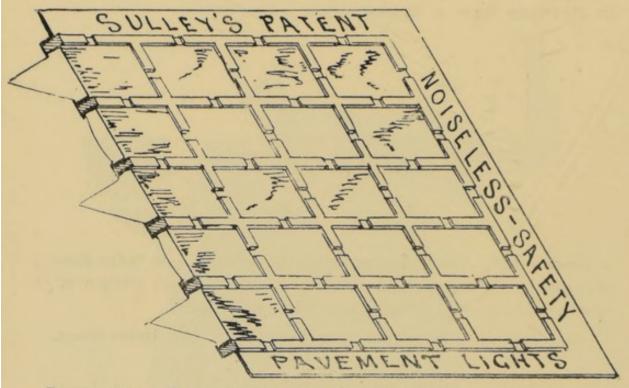
Electric Light Plant. Bronze Medal, 1896.

To ROWLAND BARNETT & Co., LIMITED, Newcastle-on-Tyne.

Description.—Temporary Electric Lighting Plant, consisting of 20 h.p. high speed steam engine, and portable "Loco" boiler on wheels; also one dynamo 90 amps. 100 volts, and one dynamo 30 amps. 100 volts. Arc and Incandescent lamps may be run off the same circuit.

Noiseless Safety Pavement. Bronze Medal, 1892.

To H. SULLEY.



Description.—Pieces of wood are inserted in the iron framing between the squares of glass to prevent slipping.

PRICES.—From 7s. to 10s. per superficial foot.

Manufactured by H. Sulley, 6, Albert Street, Nottingham.

## Cainks' Automatic Gas Governor.

Silver Medal, 1889.

To Guest & Chrimes.

Description.—This invention is to secure a means by which the pressure of gas in the mains issuing from the Gas Governor may be increased and diminished automatically, at such times and to such extent as the consumption of gas supplied therefrom requires, and thus prevent what frequently happens—an excess or deficiency of pressure, arising from the impossibility of the man in charge at the gas works being able always to anticipate the precise time and extent the pressure is required, consequent on the variation of the consumption which takes place in a town from time to time.

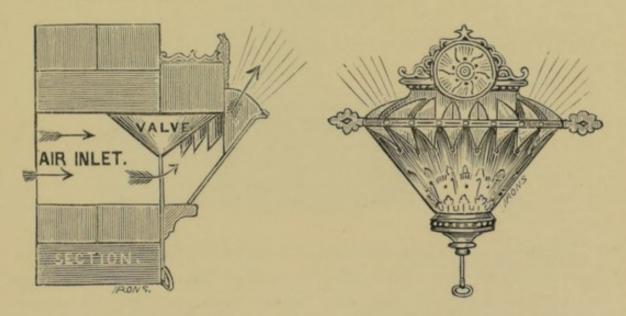
Manufactured by Guest & Chrimes, Rotherham.

#### DIVISION C .- CLASS III. - Section 6. Ventilators.

#### Thomasson's Inlet Ventilator.

Bronze Medal, 1889.

To W. Bennett & Co.



Description.—An Ornamental Semi-Circular Bracket with a number of openings separated by Gills or Divisions for diffusing the incoming air. The supply of air can be regulated by a Conical Valve which slides down behind the Division.

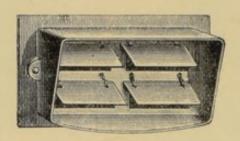
PRICE.—10s. and upwards.

Supplied by W. Bennett & Co., Ironfounders and Patentees, 8, Nicholas Street, Worcester.

DIVISION C .- CLASS III. - Section 6. Ventilators. (Continued.)

# Mica Flap Outlet Ventilator, with Hit-and-Miss Front. Bronze Medal, 1890.

TO HAYWARD BROS. & ECKSTEIN.



DESCRIPTION.—For the discharge of heated and vitiated air from rooms into the smoke flue. The Valves are made of Mica, and open with the up current in the flue, but close against down draughts, and prevent smoke entering the room.

Sizes.—11  $\times$  5 in.; 11  $\times$  7 in.; 11  $\times$  9 in.; 11  $\times$  11 in.: 16  $\times$  11 in.

PRICES.— 2/3

3/3

5/-

6/-

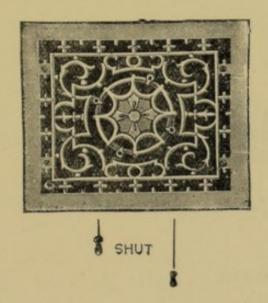
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Manufactured by HAYWARD BROS. & ECKSTEIN, Union Street, Borough, London, S.E. DIVISION C.—CLASS III.—Section 6. Ventilators. (Continued.)

#### Southwark Universal Venetian Ventilator.

Bronze Medal, 1890.

To HAYWARD BROS. & ECKSTEIN.





Outlet Section.

Description.—They act as "outlet" or "inlet," by reversing them when fixing. The Venetians can be set at any angle, and will remain in that position without the aid of a cleat hook.

Sizes.— $10 \times 8$  in.;  $12 \times 10$  in.;  $14 \times 12$  in.;  $16 \times 14$  in.;  $18 \times 12$  in.

PRICES.- 5/-

6/6

9/6

11/-

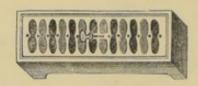
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Manufactured by HAYWARD BROS. & ECKSTEIN, 187, 189, 191, and 193, Union Street, Borough, London, S.E. DIVISION C .- CLASS III .- Section 6. Ventilators. (Continued.)

#### Ornamental Hit-and-Miss Air Bricks.

Bronze Medal, 1890.

To HAYWARD BROS. & ECKSTEIN.



Description.—Consists of an Iron Box, with pierced front, fitted with a sliding diaphragm behind.

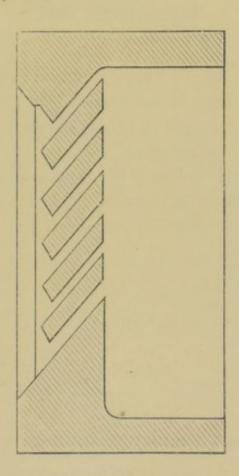
Sizes.—9 in,  $\times$  3 in. to 18 in.  $\times$  9 in.

PRICES.-From 1s. to 7s. each.

Manufactured by Hayward Bros. & Eckstein, 187, 189, 191, and 193, Union Street, Borough, London, S.E. DIVISION C .- CLASS III .- Section 6. Ventilators. (Continued.)

Louvre Air Bricks. Bronze Medal, 1898.

To J. DUCKETT & SON, LTD.



Description.—These ventilating bricks are made of stoneware, and are designed to prevent rain passing through or into the walls.

Sizes.— $12 \times 9\frac{1}{2} \times 4\frac{1}{2}$  in.;  $9 \times 9\frac{1}{2} \times 4\frac{1}{2}$  in.;  $9 \times 6\frac{1}{4} \times 4\frac{1}{2}$  in.;  $9 \times 3\frac{1}{8} \times 4\frac{1}{2}$  in.

PRICES.—On application.

Manufactured by J. Duckett & Son, Ltd., Sanitary Ware Works, Burnley, Lancashire. DIVISION C.-CLASS III.-Section 6. Ventilators. (Continued.)

Wall Inlet Ventilator.

Bronze Medal, 1890.

Improved Box Inlet Ventilator.

Bronze Medal, 1892.

To C. KITE & Co.

Description.—Made of Sheet Iron, it is fixed in an opening in the wall, with an ordinary air grating on the outside. The Drawing represents the Ventilator open; the Spandrils or Cheeks are pressed closely to the sides by Springs to prevent leakage of air, and hold the movable front in any position open to closed; internally the Ventilators are fitted with Baffle-Plates, by which outside wind force is checked; the clear way through them is about half their external measurement.

Sizes.—6 in.  $\times$  9 in.; 8 in.  $\times$  6 in.; 10 in.  $\times$  6 in. PRICES.—8s. 6d. and 10s. 6d.

Manufactured by C. Kite & Co., Christopher Works, Chalton Street, N.W.

\* Cast and Sheet-Iron Ventilating Gratings with Louvre Valves.

Bronze Medal, 1890.

To H. HEIM.

\* Round Ventilating Valves

Bronze Medal, 1890.

To H. HEIM.

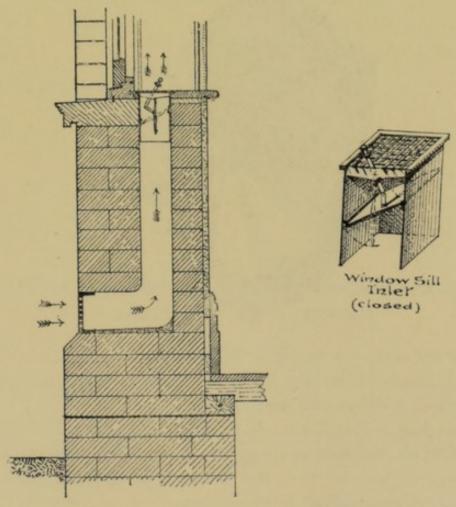
<sup>\*</sup> See Note on Page 20.

DIVISION C.-CLASS III.-Section 6. Ventilators. (Continued.)

Lock Valve Inlet Ventilator. Bronze Medals, 1892 and 1894.

To C. Kite & Co., Chalton Street, N.W.

N°6H. Window Sill Inlet.



Description.—Made to fit any openings, but specially suitable for window sills of Churches, Schools, &c. The drawing represents the Ventilator closed, the locking-lever pressing the valve tightly on its seating, thus preventing any leakage of air. To open same, the lever is pulled over, bringing the valve perpendicularly in the centre, thus giving a clear full way through the Ventilator.

PRICE AND SIZE.—From 13s. 6d.; 9 in.  $\times$  4½ in.

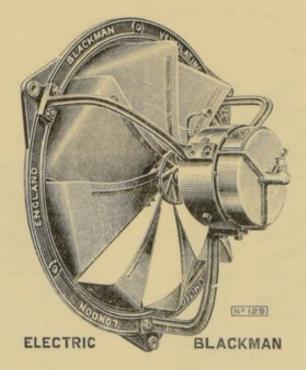
Manufactured by C. Kite & Co., Christopher Works, Chalton Street, London, N.W.

DIVISION C.-CLASS III.-Section 6. Ventilators. (Continued.)

Ventilating Fans worked by Electricity, Steam, or Water.

Silver Medal, 1894.

TO BLACKMAN VENTILATING CO., LTD.



Description.—Electric Blackman Fan and Motor combined in one selfcontained appliance; it can be fixed in any desired position, and driven by connecting it to wires (as used for lighting).

Blackman Fan combined with water motor. A small jet of water at a pressure of 20 lbs. or more per square inch is applied at a tangent direct to the periphery of the fan. The water runs into a tank, from which it may be used without waste for any other purpose.

Sizes.—Diameter in inches, 14 to 120 inches.

PRICES.—On application.

Manufactured by Jas. Keith & Blackman Co., Limited, 27, Farringdon Avenue, London, E.C.

DIVISION C.—CLASS III.—Section 6. Ventilators. (Continued.)

\* Electric Ventilating Fan.

Silver Medal, 1894.

To J. H. PICKUP & Co., LIMITED.

Improved Ventilating Inlet, with large Removable Outside Grating.

Bronze Medal, 1894.

To J. GIBBS & SON.

Manufactured by John Gibbs & Son, 72, 74, 76, Duke Street, Liverpool.

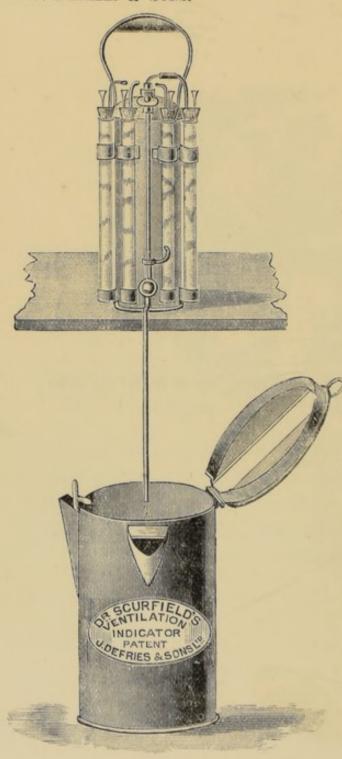
<sup>\*</sup> See Note on Page 20.

### DIVISION C .- CLASS III. - Section 6. Ventilators. (Continued.)

### Dr. Scurfield's Ventilation Indicator.

Bronze Medal, 1896.

To J. Defries & Sons.



Description.—The apparatus consists of an aspirator filled with water and supplied with a gauge, surrounded by a number of tubes, all containing exactly the same quantity of the same pink solution of baryta and phenolphthalein. Each tube can be in turn connected with the aspirator, so that as the water is run off from the aspirator, an equivalent amount of air bubbles through the pink solution in the tube, which loses its colour quickly or slowly according as there is much or little carbonic acid in the air. The case is used for catching the water, and for refilling the aspirator when necessary. When the decolorisation is complete, the tap is turned off, and the amount of air that has been necessary to effect the decolorisation is shown by the amount of water that has been run off from the aspirator. In order to get all the tubes decolorised to the same extent, it is advisable when comparing them to look through the depth of the column of contained fluid.

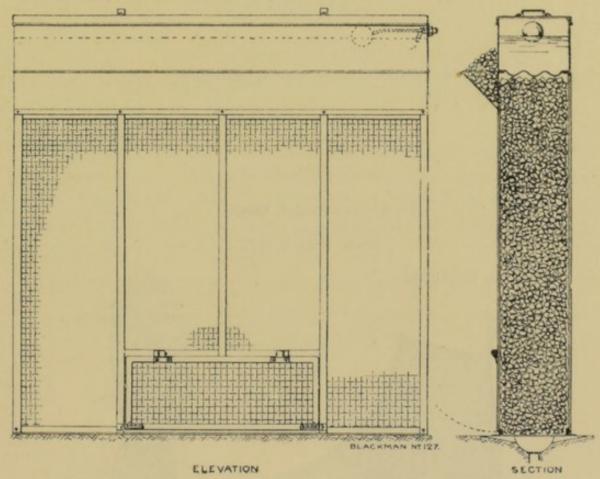
PRICE.—Complete with necessary Chemicals, £2 2s.

Manufactured by J. Defries & Sons, Ltd., 147, Houndsditch, London, E.C.

### DIVISION C .- CLASS III .- Section 6. Ventilators. (Continued.)

### Coke Screen for Ventilating Purposes. Silver Medal, 1897.

TO BLACKMAN VENTILATING CO., I.TD.



Description.—This is composed of prepared Coke held in strong wire work carried on wrought iron frames, and fitted when required with a tank above by which the Filter is moistened by water or other liquid, such as disinfectants or perfumes, and with a waste pipe below to carry off any surplus liquid. Doors and covers are provided in the ironwork, so that the coke can be removed and renewed when necessary.

Size.—As required.

PRICE.—According to size and requirements.

Manufactured by Jas. Keith & Blackman Co., Limited, 27, Farringdon Avenue, London, E.C.

\* Water-Closet Ventilating Fan, worked by High Pressure Supply to Flushing Cistern.

Bronze Medal, 1898.

TO SANITARY VENTILATING SYNDICATE.

\* See Note on Page 20.

## DIVISION D.—PERSONAL AND DOMESTIC HYGIENE.

DIVISION D .- Section 1. Clothing.

Anatomical Boots.

Bronze Medal, 1889.

Silver Medal, 1892.

TO NATHANIEL BLETCHLY.





Description.—The Boots are designed to fit the natural shape of the feet, and are noiseless.

PRICES.—From £1 5s. Directions for self-measurement and further particulars on application.

Manufactured by NATHANIEL BLETCHLY, 89, Northgate Street, Gloucester.

### DIVISION D .- Section 1. Clothing. (Continued.)

Cellular Clothing.
Silver Medal, 1889.
Cellular Fabrics.
Silver Medal, 1890.

To THE CELLULAR CLOTHING CO., LTD.

Description.—The Fabric is made so that the outside presents an open Cellular appearance, while the reverse side is more closely woven. The material being porous, retains a film of warm air around the body, and at the same time allows the excretions to pass off from the skin. It is made in Cotton, Merino, Wool, or Silk.

PRICES,-Men's and Women's Underware, &c., 3s. 6d. upwards.

Manufactured by The Cellular Clothing Co., Limited, 52, 72, & 73, Fore Street, E.C.

Jaeger's Woollen Underclothing.
Silver Medals, 1894 and 1898.

To Miss H. HOPE HOSKINS.

To Allports, Birmingham.

Description.—Wool Stockinet Underwear, free from dye, devised by Dr. Jaeger.

PRICES.—Under Vests, 5s. 9d. to 9s. 3d.; Pants, 5s. 9d. to 8s.; Shirts, 6s. to 1s. 9d.

Exhibited by Dr. Jaeger's Sanitary Woollen Co., 95, Milton Street, London, E.C.

### DIVISION D.—Section 1. Clothing. (Continued.)

\* Hygienic Clothing. Silver Medal, 1894.

To Miss Hope Hoskins.

Petanelle Fabrics.

Bronze Medal, 1898.

To Brion, Paté, Burke & Co.

Description.—Composed of mixture of natural undyed wool with "Petanelle Wool," a patent preparation of Fibrous Peat. The following are made in Petanelle Fabrics:—Hygiene underwear and hosiery, flannels, cloths, felts, rugs, bed blankets, sheeting, belts, bandages, horse and dog clothing, &c.

PRICES.—On application.

Manufactured by Paté, Burke & Co., 6, Wool Exchange, Basinghall Street, London, E.C.

\* Sanitary Hat Linings.

Bronze Medals, 1889 and 1890.

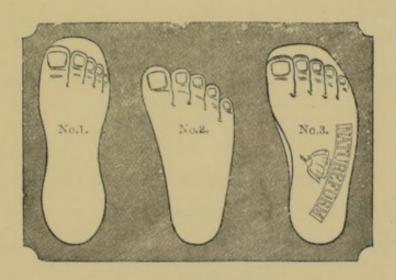
To D. W. WALL.

<sup>\*</sup> See Note on Page 20.

DIVISION D .- Section 1. Clothing. (Continued.)

# Nature-form Boots and Shoes for Children. Bronze Medal, 1892.

To HOLDEN BROS.



No. 1—"Straight" Shoe, as commonly worn. No. 2—A Natural Foot of a Child. No. 3—"Nature-form" Shoe.

DESCRIPTION.—These are made upon the lasts corresponding exactly to the natural form of the foot, and in four different widths to each length, thus ensuring a fit whether the foot is broad or narrow.

PRICE.-From 3s.

Manufactured by Holden Bros., 3, Harewood Place, Oxford Street, London, W.

### DIVISION D.-Section 1. Clothing. (Continued.)

Hygienic Corsets.

Bronze Medal, 1892.

To Herts, Son & Co.

Description.—A Corset and Bodice combined (known as the Platinum Anti-Corset), fitted with unbreakable bones, so arranged that all are removable for washing. In cotton, pure wool, and other materials.

PRICE.-From 4s. 11d.

Manufactured by The English "Platinum" Anti-Corset Co., Limited, Ridgmount Street, London, W.C.

\* System of Hygienic Dress Cutting.

Bronze Medal, 1892.

To F. H. KNIGHTS.

Men's India Rubber Boots Ventilated and Lined with Felt.

Bronze Medal, 1892.

To J. J. THORNTON & Co.

Description.—These India Rubber Boots are ventilated by means of tubes down the sides and about the feet. They are made without seams.

Sizes .- In all sizes.

PRICE.—25s. per pair.

Manufactured by J. J. THORNTON & Co., Southsea and Brighton.

\* See Note on Page 20.

### DIVISION D .- Section 2. Beds and other Furniture.

### Exhibit of Church Fittings.

Bronze Medal, 1890.

To G. M. Hammer & Co.

Description.—Lecterns, Altar Tables, Pulpits, Church Seatings, Prayer Desks, Reading Desks, Vestry Fittings, Brass Work Fabrics, &c.

Manufactured by George M. Hammer & Co., Limited, 370, Strand, London, W.C.

### Down Covered Air Cushions.

Bronze Medal, 1892.

To J. J. THORNTON & Co.

Description.—These Cushions are an improvement upon the old style of airproof Cushions, being made or covered in fancy materials, and also having a covering of down.

Sizes.—Made in all sizes and shapes.

PRICES .- From 10s. 6d.

Manufactured by J. J. THORNTON & Co., India-Rubber Manufacturer, Southsea and Brighton. DIVISION D .- Section 2. Beds and other Furniture. (Continued.)

\* Wire Mattresses and Adjustable Bed Rests.

Bronze Medal, 1890.

TO WALTER WALKER.

Bath Chair.

Bronze Medal, 1890.

To J. L. BRIGDEN & Co.

Description.—Suitable for sitting or lying posture, Spring Back and Cushion; for drawing by Hand, Donkey, or Pony.

PRICE.—For Hand-drawing, £52 10s. Shafts and Bar for Donkey or Pony, £2 2s.

Manufactured by J. L. Brigden & Co., 187, Western Road, Brighton.

<sup>\*</sup> See Note on Page 20.

DIVISION D. -Section 2 Beds and other Furniture. (Continued.)

### Dodd's Helical Spring Bed Rest.

Bronze Medal, 1896.

To BRITISH SANITARY COMPANY.

Manufactured by British Sanitary Co., 10, Bothwell Street, Glasgow.

DIVISION D.—Section 3. Hospital and Siek Room Appliances.

### Kapok Vegetable Wool.

Bronze Medal, 1899.

To G. A. PERMAIN & Co.

Description.—Kapok (or Capoc) is a vegetable wool somewhat similar to thistle down, but with a longer fibre, and is chiefly grown in the Dutch East Indian Colonies. The use of Kapok is gradually superseding that of horsehair, flock, or wool in the filling of mattresses; it does not become hard or flat. Besides being cheaper than the other articles referred to, it is preferable on account of its neatness and cleanliness, and as it contains no animal grease particles, the danger of vermin is practically eliminated.

PRICES.—Retail price 1s. and 1s. 6d. per lb.

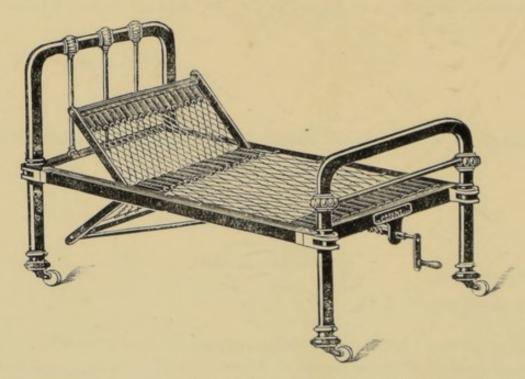
Manufactured by G. A. Permain & Co., Southampton.

## DIVISION D.—Section 3. Hospital and Sick Room Appliances. (Continued.)

### Dominion Bedstead.

Bronze Medal, 1897.

To G. GALE & SON, LTD.



Description.—Lawson Tait Bedsteads fitted with Patent Dominion Wire Mattresses, with appliances for raising the patients, for hospital and general use. Specialities in surgical, asylum, invalid, children's hospital, and other beds for furnishing of hospitals and other institutions.

Sizes.—All sizes to order.

PRICES.—Vary according to size, design, &c.

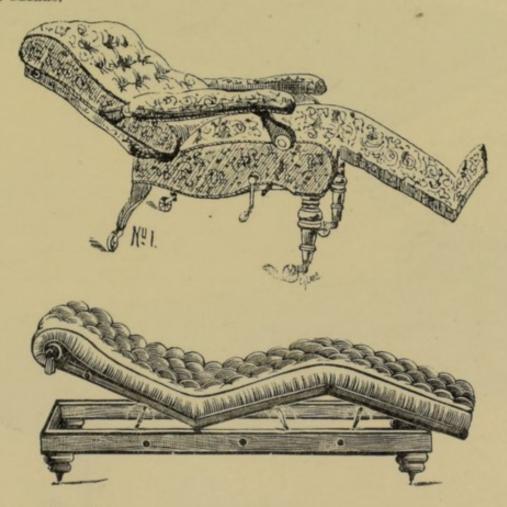
Manufactured by GEO. GALE & SONS, Dominion Works, Birmingham.

## DIVISION D.—Section 3. Hospital and Siek Room Appliances. (Continued.)

Excelsior Adjustable Invalid Chair and Couch.

Bronze Medal, 1890.

To J. MILLS.



PRICES .- From £7.

Manufactured by J. Mills, 24, North Road, Brighton.

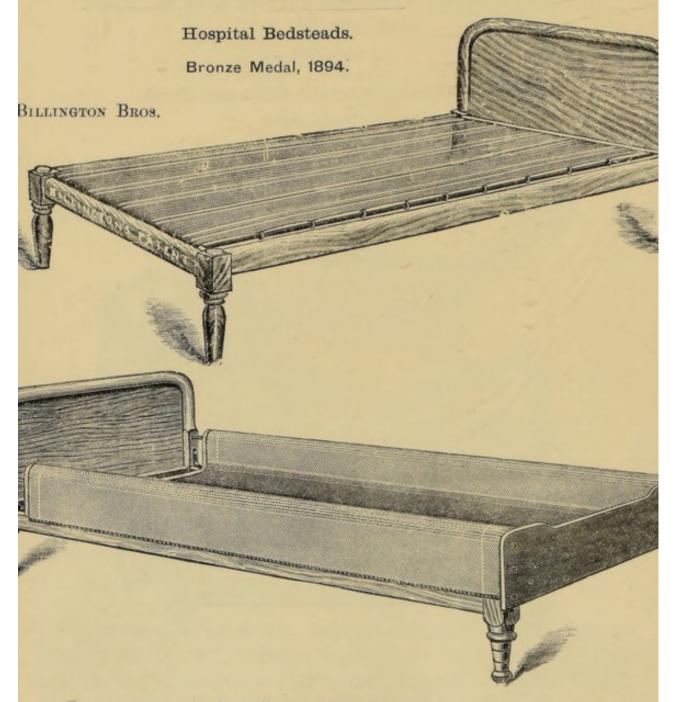
\* Crutch with Side Handle.

Bronze Medal, 1890,

To E. A. B. BEAUMONT.

<sup>\*</sup> See Note on Page 20.

DIVISION D .- Section 3. Hospital and Sick Room Appliances. (Continued.



Description.—Asylum Bedstead, Design No. 3, made of pitch pine, French polished, and fitted with a double woven spring mattress, made of steel wire, galvanized, to prevent corrosion.

Epileptic Bed, Design No. 5, designed and constructed for Epileptic patients, made of pitch pine, French polished. The mattress is of double woven sheet wire, galvanized, to prevent corrosion, and the edges of the mesh are thrown upwards, so as to form a trough or well.

Size. - 2 ft. 10 in. × 6 ft. 6 in.

PRICES .- On application.

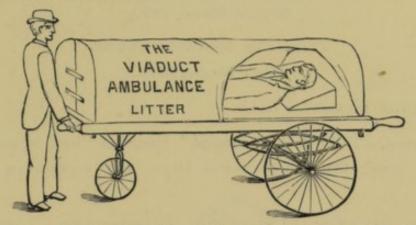
Manufactured by SIDDALL & HILTON, LTD., 95, Great Homer St., Liverpool.

DIVISION D.-Section 3. Hospital and Sick Room Appliances. (Cont.)

Ambulance Litter.

Silver Medal, 1894.

TO ALFRED CARTER, LIMITED.



Description.—A strong, light, ash-framed stretcher, webbed and covered with tanned canvas, wedge-shaped pillow, body and leg straps, and fitted with removable waterproof hood. The under frame to which the wheels are attached is separate and complete. It is fitted on steel springs, and spring wired on india-rubber-tyred bicycle wheels.

PRICE.—£13 17s. 6d, including india-rubber-tyred wheels and all fittings.

Manufactured by J. & A. Carter, 6a, New Cavendish Street, Portland Place, London, W.

Carrying Chair and Self-propelling Chair Combined.

Bronze Medal, 1894.

To Alfred Carter, Limited.



DESCRIPTION.—The Chair is fitted both back and front with carrying handles. Seat cushion, covered in leather cloth.

PRICE.-£8 8s.; with independent legs fitted to carry Chair, £8 18s.

Manufactured by J. & A. Carter, 6a, New Cavendish Street, Portland Place, London, W.

DIVISION D.—Section 3. Hospital and Sick Room Appliances. (Cont.)

Medicine Chest and Pocket Cases. Bronze Medal, 1890.

Travelling Medicine Chests. Silver Medal, 1892.

To Burroughs Wellcome & Co.

DESCRIPTION.—The "Indian Tabloid" Medicine Chest is made of matured teak wood, fitted with metal trays, and contains a supply of medicines.

PRICES.—No. 117 "Tabloid" Pocket Case, containing sixteen  $\frac{1}{2}$ -oz. vials, from 26s. each; No. 252 "Indian" Medicine Chest, fitted with  $20 \times 2$  oz. Stoppered Bottles, containing "Tabloid" Medicines, Instruments, and Guide Book, &c., from £3 15s.; B. W. & Co. "Antidote" Case, £2; B. W. & Co. Urine Test Case, 25s.; No. 250 "Congo" Medicine Chest, from £10.

Manufactured by Burroughs, Wellcome & Co., Snow Hill Buildings, E.C.

### Surgical Dressings.

Silver Medals, 1889 and 1894.

To THE LIVERPOOL LINT CO.

Description and Use.—Lints for Surgical Purposes, manufactured from Flax and Cotton Yarns, absorbent, pure, and tearable. Bandages in open porous material, both grey and bleached, absorbent, and of close heavy cloth. Cotton Wools, absorbent, bleached, and grey. Surgeon's Tow, Carbolised Tow, an antiseptic dressing. Splint Padding, a combination of tow and absorbent wool. Protective Lint—ordinary Lint having attached a waterproof backing.

Manufactured by The Liverpool Lint Company, Mark Street Mills, Liverpool.

DIVISION D.—Section 3. Hospital and Sick-room Appliances. (Continued).

\* Prepared China Grass for Surgical Purposes.

Bronze Medal, 1889.

To THE LIVERPOOL LINT CO.

Sick-room Apparel. Bronze Medal, 1899.

TO THE ALIONE CO.



DESCRIPTION.—The Aliônè garments allow of removal from invalids or children without any disturbance. Special designs for both sexes; the illustration shows one adapted to a wounded man.

Size.—Bed-gown.

PRICES.—Ladies', from 8s. 11d. Men's, or plain for hospital use in flannelette, per doz. at much reduced prices.

Manufactured by The Alione Co., 37, Edgware Road, Marble Arch, London, W.

\* See Note on Page 20.

DIVISION D .- Section 3. Hospital and Sick Room Appliances. (Cont.)

\* Switchboard with Accumulator and Rheostat for Medical Purposes, 1 to 2 volts.

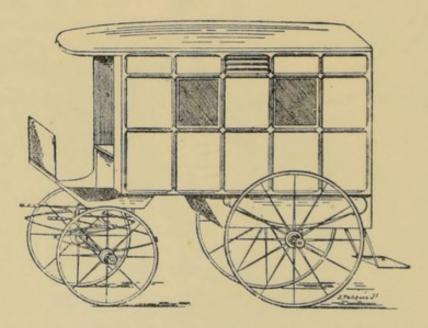
Silver Medal, 1894.

To LIVERPOOL ELECTRIC SUPPLY Co.

Ambulance Van, St. John's Pattern.

Bronze Medal, 1896.

To ATKINSON & PHILIPSON.



Description.—A light Ambulance Van for one horse. Seats for driver and attendant outside, three patients and two nurses inside. Fitted with wheeled stretcher and canvas stretcher to suspend from the roof, and Philipson's patent springs. Facilities for cleansing and disinfection. Van is ventilated, and driver protected from the weather.

PRICE.—Van, £78; stretcher, &c., extra.

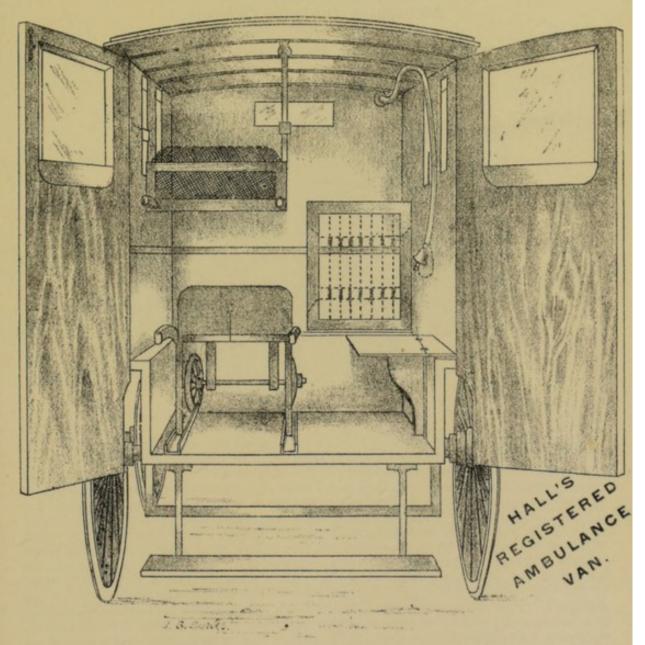
Manufactured by Atkinson & Philipson, Carriage and Harness Manufacturers, 27, Pilgrim Street, Newcastle-on-Tyne.

\* See Note on Page 20.

DIVISION D.—Section 3. Hospital and Sick Room Appliances. (Cont.)

Ambulance Van. Bronze Medal, 1896.

To G. H. HALL.



DESCRIPTION.—The stretcher on the floor has a wire mattress, and is mounted on wire wheels and movable head rest. The upper stretcher is suspended on springs, and has a woven mattress, with patent pillow attached. Bed rest. Cupboard in boot for medical requisites, speaking tube, &c.

PRICES.-From £75 to £100.

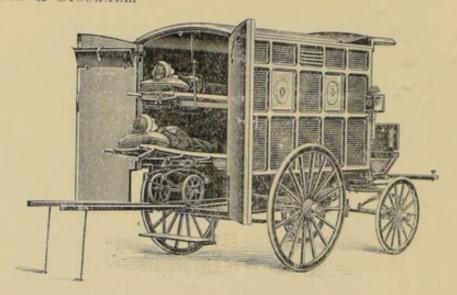
Manufactured by G. H. Hall, Thornton Street, Newcastle-on-Tyne.

DIVISION D.-Section 3. Hospital and Siek Room Appliances. (Cont.)

### Accident Ambulance Carriage.

Bronze Medal, 1897. Silver Medal 1898.

To WILSON & STOCKALL.



Description.—Frame of body is built of English ash, with panels of baywood; ventilated at the sides and doors, and fitted with adjustable covers; lighted with glass panels, and lighted at night with two outside and one inside lamps; doors open outwards, and fitted with lock and inside and outside handles; small window to open for direct communication with the driver from the inside; receptacle for splints, bandages, &c.; seats for doctor and attendants; folding step at back; seats in front for driver and assistant, with canopy cover. The Ambulance is fitted with two stretchers. (A), or bottom stretcher, is furnished with 12 in. rubber-tyred wheels and elliptic springs (which are detachable). It runs in grooves on the bottom of the Ambulance after being placed on a portable tramway, which is fitted to the back of the body; this can then be folded up and carried underneath the stretcher. This stretcher is also fitted with an arrangement for raising the patient in a horizontal position when the Ambulance may be descending a steep incline. Stretcher (B) is fitted with four small springs and wheels, and is suspended on frame over stretcher (A); both frame and stretcher fold up. Both stretchers are covered with stout sail canvas, and are fitted with two rubber pillows. The canvas is covered with white rubber sheeting.

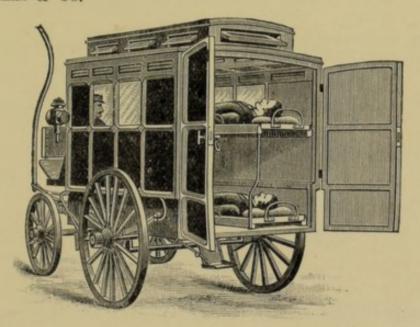
PRICE.-£130.

Manufactured by Wilson & Stockall, County Carriage and Ambulance Works, Bury, Lancashire.

## DIVISION D.—Section 3. Hospital and Sick-room Appliances. (Continued.)

Van-Shaped Ambulance. Silver Medal, 1899.

To CHALMERS & Co.



Description.—The Van Ambulance is constructed with a view to easy disinfection. It is painted with special acid-proof paint or enamel to prevent the injurious action of disinfectants. The stretcher, which is either caned, wire spring mattress, or canvas covered (the latter fixed with brass eyelets and knobs removable), is fitted with telescopic handles at each end, fixed handles at each end and sides, to prevent the mattress from sliding off, and patent castors underneath, on which it rolls with ease on the tram-rails. The latter are let in brass sockets into the bottom of the carriage. A seat chair for a nurse is fitted in the left corner. Should there be two patients at one time, one on the stretcher and one to sit up, another seat for the nurse is attached to the side of the carriage. A reading lamp is fixed at top. Two squares of the top panels on each side are fitted with trimedical glass. Ventilating windows turning on centre pivots are fixed with brass quadrants at the sides and back of dome to open or close at will. If required, a second stretcher can be fixed about two feet above the bottom one. A folding step is attached, which opens and closes with the door. The springs are front elliptic, hind long side springs, and will give great ease and prevent oscillation, especially as the body of the carriage will work on hind axle, that being cranked.

PRICES.-£75 to £100.

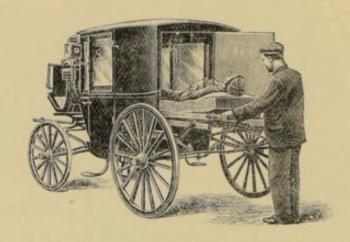
Manufactured by Chalmers & Co., Redhill, Surrey.

## DIVISION C.—Section 3. Hospital and Sick Room Appliances. (Continued.)

Brougham Ambulance.

Silver Medal, 1898 and 1899.

To WILSON & STOCKALL.



Description.—Like ordinary brougham in appearance, with opaque glass windows at the sides. Doors at sides, and one at the back. Fitted with portable stretcher which is made with Dominion wire mesh and spiral springs, this runs in on a grooved frame which will extend and then folds up out of the way when not required for the stretcher; the whole of the frame and stretcher can be removed, then the ambulance can be used as an ordinary four-seated brougham. The stretcher is fitted with folding handles and a rubber air-bed, and four inside cushions which are covered with rubber sheeting. The inside is fitted with a small cupboard for medical accessories.

PRICE.-£115.

Manufactured by Wilson & Stockall, Ambulance Specialists, Builders, and Inventors, Bury, Lancs.

## DIVISION D.—Section 3. Hospital and Sick Room Appliances. (Continued.)

### Doctor's Light Brougham.

Bronze Medal, 1896.

To ATKINSON & PHILIPSON.

Description.—Light "Medical" Brougham for one horse, hung on patent springs, and fitted with electric light inside and out.

PRICE.-£135.

Manufactured by Atkinson & Philipson, Carriage and Harness Manufacturers, 27, Pilgrim Street, Newcastle-on-Tyne.

# Syringe for injecting Anti-Toxic Serums. Bronze Medal, 1896.

To BURROUGHS WELLCOME & Co.

Description.—The rubber plunger may be accurately adjusted to the calibre of the tube. This plunger is grooved for the application of vaseline or other lubricant. The syringe is supplied in a metal case with two platino-iridium needles, and is fitted with finger grips and with detachable flexible nozzle for use when any sudden movement on the part of the patient might break a rigidly fixed needle. The piston-rod is graduated for cubic centimeters.

Sizes.—In two sizes to hold 5 or 10 c.c.

PRICE.-£1 5s.

Manufactured by Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.

DIVISION	D.—Section 3.	. ]	Hospital	and	Sick	Room	Appliances.
		-	(Continue	d.)			

Adaptation of the Braile System to Phonetic Reporting for the Blind.

Bronze Medal, 1898.

To GENERAL INSTITUTION FOR THE BLIND, Birmingham.

DIVISION D.-Section 4. Domestic Appliances.

\* Hygienic Dust Bin.

Bronze Medal, 1889.

To HENRY DEAN.

\* Excelsior Dust Chute.

Bronze Medal, 1890.

To J. SMEATON, SON & Co.

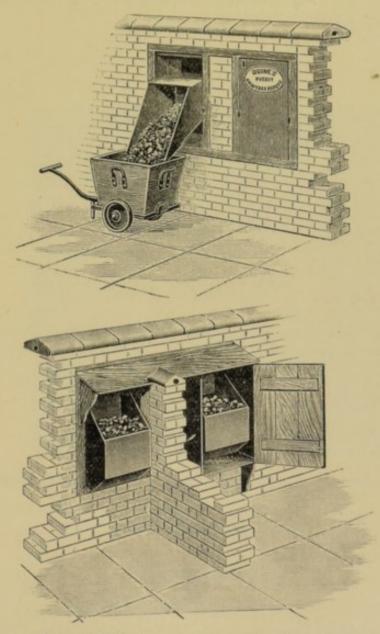
<sup>\*</sup> See Note on Page 20.

DIVISION D .- Section 4. Domestic Appliances. (Continued.)

### Sanitary Ashbin.

Bronze Medals, 1897 and 1898.

To R. H. QUINE.



Description.—This Ashbin is constructed of steel plate, galvanised. It is hung on pivots in the frame of an opening in the wall of the back yard. It is emptied by scavenger, who (having the key) unlocks it from the outside, and swings over, so that it tips into his box, barrow, or low cart.

PRICES.—Bin, with strong wood back, 21s. 6d. each nett. Frames, 9 in. by 3 in., spruce, primed, bin fitted ready for work, 6s. 6d. each nett; and if red, deal, or pine, 1s. 6d. each extra.

Manufactured by Pendleton Sanitary Engineering Co., Statham Street, Pendleton, Manchester.

### BIVISION D.-Section 4. Domestic Appliances. (Continued.)

Simplex Cinder Sifter. Bronze Medal, 1898.

TO ARKINSTALL BROS.



DESCRIPTION.—Dustbin fitted with a circular cinder-sifter on the top of it, and a cover for the whole. The motion is rotary,  $\frac{1}{4}$ -way round.

Sizes.— $36 \times 18$  in.;  $30 \times 17$  in.;  $24 \times 15$  in.; the former height, the latter diameter.

PRICES.-12s. 6d., 16s. 6d., 25s.

PARTS.—Dustbin, Sifter, and Cover.

Manufactured by ARKINSTALL BROS., Milk Street, Birmingham.

\* China Slop Pails. Bronze Medal, 1890.

To J. HAINES, Brighton.

\* Venetian Blind Fittings.

Bronze Medal, 1890.

To SMITH, COLLIER & Co.

\* See Note on Page 20.

### DIVISION D.—Section 4. Domestic Appliances. (Continued.)

Handy Curtain Frame.

Bronze Medal, 1894.

To E. N. KENWORTHY & Co.



Description.—This is a combination device comprising standards adjustably sesured to a top bar, with two stretcher bars on opposite sides of the standards. The structure is readily adjustable to various sizes and patterns of curtains, facilitating their stretching and drying, and enabling the curtains to be secured without the use of permanent pins or hooks, while it may also be used as a clothes rack or clothes horse, or to support draught screens, or screens in use in magic lantern lectures.

Sizes.—4 yds.  $\times$  2 yds.; 5 yds.  $\times$   $2\frac{1}{2}$  yds.

PRICES.-10s. 6d.; 13s. 6d.

Manufactured by E. N. Kenworthy & Co., Alpha Works, Oldham.

DIVISION D .- Section 4. Domestic Appliances. (Continued.)

### Aluminium Cooking Utensils.

Bronze Medal, 1896.

To EMLEY & SONS, LIMITED.

Sizes.—Cast Vegetable Stewpans, 4 in. to 12 in., capacity  $\frac{3}{4}$  pt. to 6 pts. Cast Bellied Saucepans, 3 in. to 8 in., capacity,  $\frac{1}{2}$  pt. to 13 pts.

PRICES.—Stewpans, 4s. 6d. to £1 9s.; Saucepans, 6s. to £1 3s. 6d. each.

Manufactured by Emley & Sons, Limited, Westgate Road, Newcastle-upon-Tyne.

\* Embroidery Machine.

Bronze Medal, 1890.

To A. WILLIAMS.

Wicker Mail Cart.

Bronze Medal, 1890.

To Halliwell & Co.

PRICE. - £3 7s. 6d.

Manufactured by Halliwell & Co., Pool Valley, Brighton.

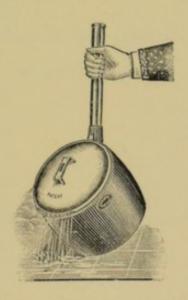
<sup>\*</sup> See Note on Page 20.

DIVISION D .- Section 4. Domestic Appliances. (Continued.)

Perfect Straining Cover for Cooking Utensils.

Bronze Medal, 1898.

To CANNON HOLLOW WARE Co.



Description.—The straining holes in the vertical rim of the lid enable straining to be performed with the saucepan in any convenient position. The covers are seamless, rivetless, and with double-edged rims, and manufactured from soft steel timplate, retinned after stamping.

Sizes.—All the usual trade sizes.

PRICES.—1d. each extra to the ordinary covers.

Manufactured by Cannon Iron Foundries, Limited., Deepfields, near Bilston, Staffs.

### DIVISION D.-Section 4. Domestic Appliances. (Continued.)

\* Automatic Milk Receiver.

Bronze Medal, 1894.

To GREENWOOD BROS.

\* Paragon Bass Brooms.

Bronze Medal, 1897.

To NEW "PATENT" BROOM Co.

Machine for Pressing Butter, Potatoes, and Fruit.

Bronze Medal, 1894.

To F. & C. HANCOCK.

Description.—The frame of the Machine is placed over a pail or tub, with enough water to cover the holes in the cylinder. The butter is taken direct from the churn, salted, and put in the Machine, the screw-piston is turned and the butter is pressed into the water like vermicelli. The screw-piston is covered with two pieces of coarse flannel, and a piece of calico outside to prevent the butter from rising past the piston. If any butter should pass the piston it wants more packing. A piece of wood is put through the loop of the false bottom to prevent it rising up when at work. This Machine mashes potatoes, turnips parsnips, and carrots; and also presses the juice from fruit.

PRICES.—Complete with tin pails, £1 1s., £1 18s., £2 14s., and £3 8s.

Manufactured by F. & C. HANCOCK, Dudley.

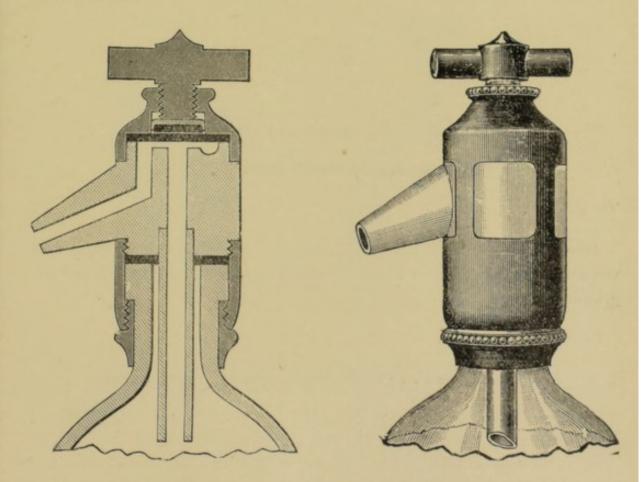
\* See Note on Page 20.

DIVISION D.—Section 4. Domestic Appliances. (Continued.)

## China Cap or Head for Siphons, Preventing Metallic Contamination of Liquids.

Bronze Medal, 1894.

To A. Lozé.



DESCRIPTION.—The cap is so arranged that the water passes through glass and china only, and cannot come in contact with the metal.

Sizes .- Two sizes.

PRICE.-2s. to 2s. 6d.

Manufactured by A. Lozé & Co., 281, West Derby Road, Liverpool.

DIVISION D .- Section 4. Domestic Appliances. (Continued.)

\* Arctic Freezer.

Bronze Medal, 1892.

TO ARCTIC FREEZER SYNDICATE.

Mill for Crumbling Bread and Grinding Sugar.

Bronze Medal, 1894.

To F. & C. HANCOCK.

Description.—Fitted with interchangeable steel discs, one coarse and one fine—the coarse cutter being for crumbling bread, and the fine one for grinding sugar.

PRICES.-7s. 6d. to £3.

Manufactured by F. & C. HANCOCK, Dudley, Worcestershire.

\* Knife and Fork Cleaner.

Bronze Medal, 1899.

To T. E. PECKETT.

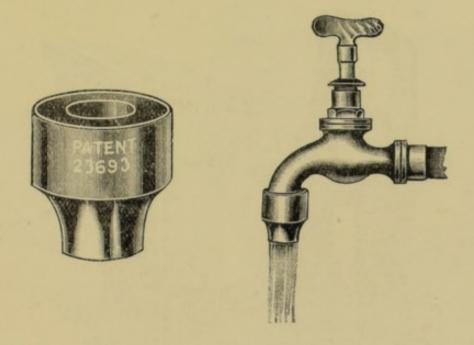
<sup>\*</sup> See Note on Page 20.

### DIVISION D.-Section 4. Domestic Appliances. (Continued.)

"Anti-splash" Excel-Silver Nozzles.

Silver Medal, 1899.

To Webb's Engineering Co.



Description.—The "Anti-splash" tap nozzle is composed of an outer metal shell or cone, having a seat inside on which are placed a series of five fine wire gauze discs, with a rubber ring or washer inside. The inside of the metal shell is screwed to grip the end of an ordinary tap, to which it will adhere even with the highest pressure. The water is so finely divided in passing through the five sets of gauzes, that all the hydraulic pressure is taken off, and the water is given a double rotary motion, so that it will fall a long distance without dividing, and when it strikes any ordinary substance flows away smoothly without any splashing. The shell and gauzes are made of "Excel Silver," a non-corrosive metal.

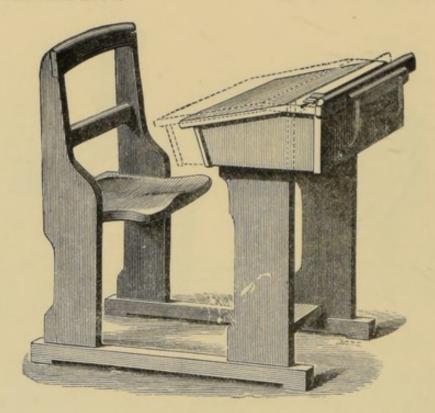
PRICES.-From 1s. upwards.

Manufactured by Webb Lamp Co., Limited, 11, Poultry, London, E.C.

### DIVISION D.-Section 5. School Fittings.

School Furniture.
Silver Medal, 1890.

To G. M. HAMMER & Co.



Description.—The "Louise" Single Desk is fitted with Metal Runners, on which the Desk slides backwards and forwards, allowing ample room for ingress and egress, and yet when drawn close to the scholar preventing stooping, and having a comfortably shaped back to the seat, securing a healthy position of the body. Many other kinds of Desks, including Convertible Desks, forming Tables, Seats, &c., and all kinds of School apparatus.

Sizes.— 31 in., 33 in., 35 in.

PRICES.—Varnished deal, £1 1s., £1 2s.

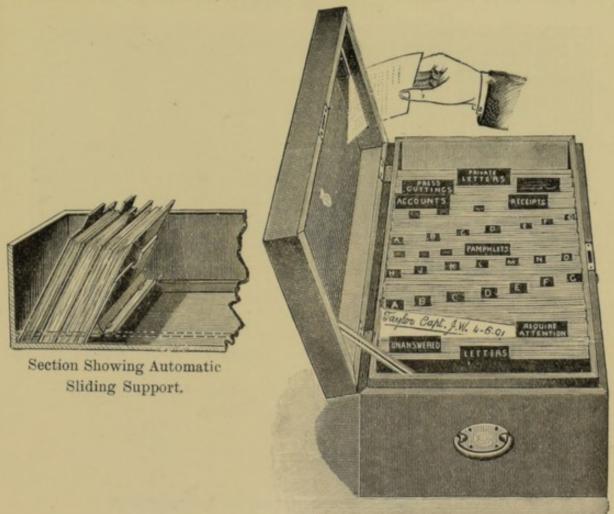
Manufactured by Geo. M. Hammer & Co., Limited, 370, Strand, W.C.

DIVISION D .- Section 5. School Fittings. (Continued.)

The "Ceres" Automatic Letter and Card File Cabinets.

Bronze Medal, 1892.

To T. Bowater Vernon, the Inventor and Patentee.



No.1 Letter File. Dimensions  $20 \times 12 \times 9\frac{1}{2}$  in. high-DESCRIPTION.—A method of keeping Letters and Documents; also Card les with Automatic Slide with on without the red for index 11 to 2

Files with Automatic Slide, with or without the rod, for indexes, lists, &c. The system is worked in File Boxes, Cabinets of Drawers, Writing Tables, or other receptacles, the Letters being arranged, standing up, at a convenient slope against a sliding support. The order of arrangement may be either alphabetical or numerical, or blank headings can be supplied to suit individual requirements.

PRICES.—In Wood (covered cloth)—No. 1, for 2,500 Letters, with Lock, £1 10s. No. 2, 1,000 Letters, 17s. 6d.. Some twenty other Boxes, Cabinets, Tables, &c., are made with capacity up to 25,000 Papers.

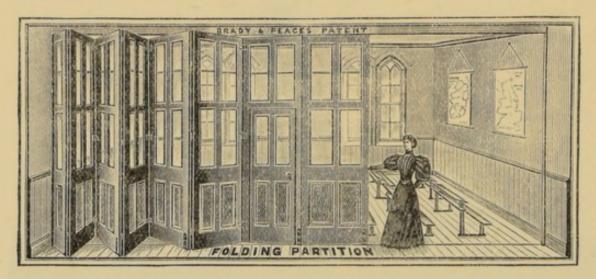
Full Descriptive Catalogue, with suggestions as to keeping papers and utilising the Card System, on application.

Manufactured by T. Bowater Vernon, 10, John Street, Adelphi, London, W.C.

### DIVISION D.-Section 5. School Fittings. (Continued.)

### Improved Folding Partition. Silver Medal, 1894.

To Peace & Norquoy.



Description.—Patent Sliding and Folding Partitions formed in sections hinged together, and suspended by rods and pulleys from carriages fixed to a beam at the top. Framed in 2 in. pine, with wood or glass panels.

PRICES.—According to quantity required and distance from Manchester. 2s. 3d. to 2s. 9d. per foot, fixed complete.

Manufactured by Peace & Norquoy, Steam Joinery Works, New Islington, Manchester.

### DIVISION D .- Section 6. Gymnastic Apparatus.

"Harrow," Safety Bicycle.

Bronze Medal, 1890.

To Halliwell & Co.

Description.—Each Machine weighs, with Saddle and Pedals, from 36lbs. to 40lbs. 26 inch Driving-Wheel, 28 inch Steering-Wheel, Warwick's Rims, Ball Bearings throughout, including Head and Pedals, 1½ inch Cushion, Tyres with ¼ inch hole, Brighton Adjustable Spring Footrests, "Harrow" Steering Lock, Bottom Bracket with Bearings outside of Chain Wheel; Band-Brake on Crank-Axle.

Size.—Geared, 58 in.

PRICES.—£21 15s.; Boothroyd Pneumatic Tyres, £1 10s. extra. Dunlop Pneumatic Tyres, £3 15s. extra.

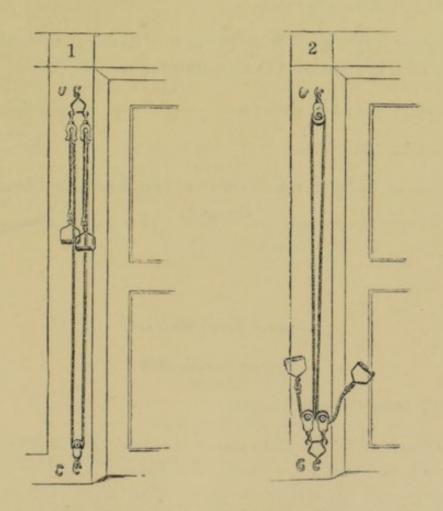
Manufactured by Halliwell & Co., Brighton.

DIVISION D. Section 6. Gymnastic Apparatus. (Continued.)

### Health Exerciser.

Bronze Medals, 1897 and 1898.

TO WHITELY EXERCISER, LTD.



DESCRIPTION.—The Exerciser consists of 3 pulleys with Cords, Indiarubber or Cables of given strengths, the pulleys are made without swivels to accommodate movement of the cord when in use.

PRICES-Ladies' and Children's, 8s. 6d. each; Men's, 10s. 6d.; Athletes', 12s. 6d.

Manufactured by The Whitely Exerciser, Ltd., 29 Maltby Street, Bermondsey, S.E.

### DIVISION D .- Section 7. Foods.

### Florador Food.

Bronze Medal, 1889.

To McLean & Son, Edinburgh.

Description.—It is made from Wheat by a special process, whereby the untritious parts are presented in a granular form.

Sizes.- 1 lb., 1 lb. packets.

PRICES .- 11d., 3d, 6d.

Manufactured by Florador Food Company, 90, Washington Street, Glasgow.

### Frame Food Extract.

Bronze Medal, 1889.

To Frame Food Company, Limited.

DESCRIPTION.—The nutritious matter is extracted from Wheat Bran by a mechanical (not chemical) process. The Extract is supplied in the form of a fine powder for adding to Bread Flour (1 oz. Extract to 5 lbs. flour), Corn Flour, Cocoa, and all farinaceous food stuffs; also to soups, gravies, &c. It is the specially nutritive feature in "Frame Food."

Sizes.— $\frac{1}{4}$  lb.,  $\frac{1}{2}$  lb., 1 lb. Tins.

PRICES.-10d. 1s. 6d. 2s. 10d.

Manufactured by Frame Food Company, Limited, Lombard Road, Battersea, London, S.W.

### DIVISION D .- Section 7. Foods. (Continued).

### Germ Bread and Flour.

Bronze Medal, 1890.

To J. J. CLARK.

Description.—"Germ Flour" consists of the separated Germ of Wheat, partly cooked by the action of super-heated steam, and then mixed with fine wheat flour. The Bread is prepared from the Flour by a process of rapid fermentation, which ensures the retention of the flavour. From "Germ Flour" is prepared a Yellow Bread. It is also suitable for making into Biscuits, Scones, and Infants' Food.

Size.—Made in ordinary loaf and biscuit sizes.

PRICES.—Sold at same price as "best" bread.

Manufactured by Clark's, Bread Co., Limited, Goldstone Bread Factory, Brighton.

#### Rizine Food.

Bronze Medal, 1890.

To RIZINE FOOD COMPANY, LIMITED.

DESCRIPTION.—Rice of a special kind is subjected to a high, moist temperature, and afterwards dried and pressed into flaky shapes by means of hot cylindrical rollers. This process partly cooks the Rice and removes a portion of the excessive starchy element.

Size.—1 lb. packets.

PRICE.-6d. each.

Manufactured by Rizine Food Company, Limited, 87, Borough High Street, S.E.

## DIVISION D.—Section 7. Foods. (Continued.)

Mellin's Food for Invalids.

Bronze Medals, 1897 and 1898.

To Mellin's Food, Limited.

PRICES.—On application.

Manufactured by Mellin's Food, Limited, Peckham, London, S.E.

## Improvements in Bread Making.

Silver Medal, 1890.

To J. J. CLARK.

Description.—These Improvements consist essentially in the building of a large factory, specially designed for the manufacture of Bread and Confectionery, which is fitted throughout with ovens and machinery of approved kind.

Manufactured by Clark's Bread Co., Limited, West Brighton.

Biscuits.

Bronze Medal, 1898.

To A. HUGHES.

Manufactured by A. Hughes, 88, Moor Street, Birmingham.

DIVISION D.-Section 7. Foods. (Continued.)

Delft Rye Yeast.

Silver Medal, 1890.

To A. BARHAM.

Manufactured by Delft Rye Yeast Co., Delft.

Corn Flour. Silver Medal, 1892.

Corn Flour for Invalids. Silver Medal, 1899.

To Brown & Polson.

Description.—Manufactured from maize by a process patented by them, and which is designed to secure the absence from it of the oil and fatty matter, and render it essentially the same in all respects as arrowroot.

PRICE.—Lists to be had on application.

Manufactured by Brown & Polson, Royal Starch Works, Paisley, N.B. 99, Queen Victoria Street, London, E.C.

Boyril.

Silver Medal, 1894.

To BOVRIL, LIMITED.

Description.—Bovril is extract of Beef and meat essences, in combination with the albumenoids of meat which are nutrients.

Manufactured by BOVRIL, LIMITED, Farringdon Road, London, E.C.

### DIVISION D.—Section 7. Foods. (Continued.)

### Vimbos Fluid Beef.

Bronze Medals, 1897 and 1898.

To VIMBOS, LIMITED.

Sizes.—In 1, 2, 4, 8, and 16 oz. bottles and pots.

PRICES.—From 1s. each.

Manufactured by VIMBOS, LIMITED, London and Edinburgh.

Preserved Fruits.

Silver Medal, 1889.

To VALE OF EVESHAM FRUIT PRESERVING CO.

Packed in Glass Bottles.

Manufactured by Vale of Evesham Preserves Pomona Works, Pershore.

Cocoa.

Bronze Medal, 1889.

Silver Medals, 1897, 1898, and 1899.

Cocoa Essence.

Bronze Medals, 1892, 1894, and 1896.

To CADBURY BROS., LTD.

Manufactured by Cadbury Bros., Limited, Birmingham.

### DIVISION D.-Section 7. Foods. (Continued).

Pure Concentrated Cocoa.

Silver Medal, 1894.

Silver Medal, 1896,

Cocoa.

Silver Medal, 1897.

Pure Cocoa.

Silver Medal, 1898.

To J. S. FRY & Sons.

Sizes.— $\frac{1}{4}$ ,  $\frac{1}{2}$ , and 1 lb. tins (sold only in tins with gilt tops.)

Manufactured by J. S. FRY & Sons, Bristol, London, and Sydney.

\* Assam Tea.

Bronze Medal, 1890.

TO THE META CHA TEA COMPANY.

Mazawattee Ceylon Tea.

Bronze Medal, 1892.

To MAZAWATTEE TEA COMPANY, LIMITED.

PRICES.—From 1s. 6d. per 1b.

Manufactured by Mazawattee Co., Ltd., Tower Hill, London, E.C., and at New Cross, S.E.

\* See Note on Page 20.

### DIVISION D.—Section 7. Foods. (Continued.)

### Tabloids of Compressed Tea.

Bronze Medal, 1894.

To Burroughs Wellcome & Co.

Description.—These "Tabloid" Products are prepared from Ceylon and Indian leaf teas by a special process whereby the injurious tannated parts of the leaf are removed.

PRICE.—In boxes of 100, 6d. each, and 200, 1s. each.

Manufactured by Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.

Coffee Extract.

Optimus Coffee Extract.

Bronze Medals, 1892 and 1894.

To E. CLARK & Co.

Sizes.—3 oz.,  $6\frac{1}{2}$  oz., 13 oz., 27 oz. bottles.

PRICES.-6d., 1s., 2s., and 4s.

Manufactured by Clark's Optimus Coffee Extract, Ltd., Queen's Road, Battersea.

### DIVISION D.—Section 7. Foods. (Continued.)

#### Malt Extracts.

Bronze Medal, 1892.

To Burroughs Wellcome & Co.

Description.—"Kepler" Extract of Malt, made from the finest wintermalted barley. "Kepler" Solution of Cod Liver Oil in Malt Extract. The finest Norwegian Cod Liver Oil in "Kepler" Malt Extract.

Sizes. —  $\frac{3}{4}$  lb. and  $1\frac{1}{2}$  lb.

PRICES .- 2s. 6d. and 4s.

Manufactured by Burroughs Wellcome & Co., Snow Hill Buildings, E.C.

\*Essence of Beef. Bronze Medal, 1890.

To H. K. EDGE.

Meat Preparation.
Silver Medal, 1890.
Beef Essences.
Silver Medal, 1892.

Meat Preparations for Invalids. Silver Medal, 1894.

TO BRAND & COMPANY.

Description.—Specialties for Invalids, consisting of Essences of Beef, Mutton, Veal and Chicken, Concentrated Beef Tea and other Broths, Savoury Meat Lozenges, Turtle Soup and Jelly, Calf's Foot Jelly, Albuminous Extract of Beef.

Manufactured by Brand & Company, Mayfair.

\* See Note on Page 20.

### DIVISION D.-Section 7. Foods. (Continued.)

Nutrient Powder.

Bronze Medal, 1899.

To Brand & Co., LIMITED.

Description.—Consists of powdered muscle fibre only, from which the moisture has been removed at a temperature below the coagulation point of the muscle proteids.

PRICES.-1-oz. bots., 10d., 2-oz. bots., 1s. 6d., 4-oz. tins, 2s. 10d.

Manufactured by Brand & Co., Limited, 11, Little Stanhope Street, London, W.

## "Mosquera" Beef Meal.

Silver Medal, 1892.

To Mosquera-Julia Food Co.

Description.—Mosquera's Beef Meal is a desiccated Powdered Beef artificially digested by aid of certain vegetable ferments.

Size.—In ½ lb. packages or bulk.

PRICE.—2s. 6d. per ½ lb. package.

Manufactured by Mosquera-Julia Food Co., Detroit, U.S.A., and 21, North Audley Street, W.

### DIVISION D.—Section 7. Foods. (Continued.)

Vegetable Seeds. Silver Medal, 1892.

To SUTTON & SONS.

Manufactured by Sutton & Sons, Reading.

Edwards' Desiccated Soup. Bronze Medal, 1889.

To Frederick King & Co., Ltd.

Made by Frederick King & Co., Limited, Belfast.

\* Case showing the Relative Constituents of Various Milks.

Bronze Medal, 1890.

EDWARD WYBORN.

Currie Powder and Paste. Empress Currie Powder. Bronze Medals, 1890 and 1894.

To J. EDMUNDS.

DESCRIPTION.—"The Empress" Currie Powder is prepared from an old Indian recipe, with Oriental seeds, spices, etc. "The Empress" Currie Paste is also prepared from an old Indian recipe, with Indian and other fruits amalgamated with the "Empress" Currie Powder. It is used in dishes of Currie to give a piquant flavour.

PRICES.—1d. Packets; 4d., 6d., 1s., 1s. 6d., 2s. 6d., Bottles; 1lb., 4lb., 7lb., 14lb., 28lb., Tins; 1 cwt. and 2 cwt. Casks.

Manufactured by Joseph Edmunds, "Empress" Works, Belper Street, Barnsbury, N.

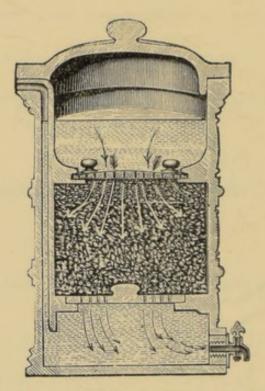
\* See Note on Page 20.

## DIVISION D .- Section 8. Domestic Filters.

Cheavin's Water Filter, with Remcvable Plate.

Bronze Medal, 1889.

To J. WARD & SON.



Description.—The Removable Plate Filters can be taken to pieces, cleansed (leaving the whole of the interior open for inspection), and recharged with new Idiocathartes. Nothing comes in contact with the water but Stoneware and the new Idiocathartes and Asbestos.

Sizes. - Gallon to 36 Gallons.

PRICES.—11s. 6d. to £7 3s.; re-charges, from 1s. 6d. to £1]1s.

Manufactured by The Fulham Pottery and Cheavin Filter Co., Limited, Fulham, S.W.

\* Bond's Regulating Filter.

Bronze Medal, 1889.

To THE SANITARY AND ŒCONOMIC ASSOCIATION, LIMITED.

\* See Note on Page 20.

## DIVISION D .- Section 8. Domestic Filters. (Continued.)

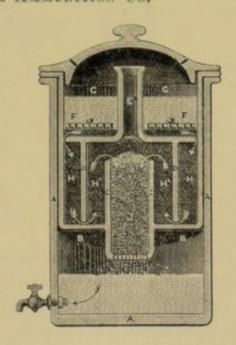
## Circulating Arrangement for Filters.

Bronze Medal, 1890.

Morris Circulating Principle of Water Filtration.

Silver Medal, 1892.

To THE MORRIS TUBE AMMUNITION Co.



DESCRIPTION.—The Filter is arranged with Vertical Annular Divisions, so that the water has to pass through a large quantity of the filtering material in the directions indicated by the arrows in the drawing.

Sizes.—From 2 Quarts to 12 Gallons.

PRICES.—From 14s. to £4 10s.

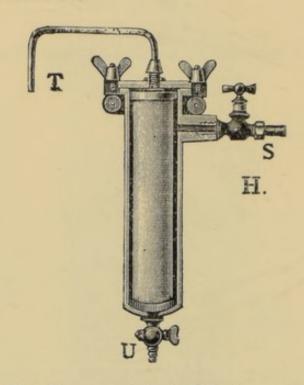
Manufactured by The Morris Tube Ammunition Co., 11, Haymarket, S.W.

## DIVISION D .- Section 8. Domestic Filters. (Continued.)

Berkefeld Filter.

Bronze Medal, 1892.

To Berkefeld Filter Co.



Description.—This Filter consists of Cylinders made from Fossil Earth obtained from Kieselguhr mines in Hanover. The Cylinders can be burned or boiled at any time to ensure a complete purification and sterilisation. House Filter, style H, to attach to supply pipe; specially designed for household purposes; made of cast iron, bronzed, and enamelled inside; taps and fittings nickel-plated. The Cylinder is 10 in. by 2 in., giving an actual filtering surface of half a square foot, and capable of filtering 300—400 gallons of water a day under a pressure of forty pounds.

Sizes.—Height, 18 in. Diameter, 3 in.

PRICE. - £2 28.

Manufactured by The Berkefeld Filter Co., Limited, 121, Oxford Street, W.

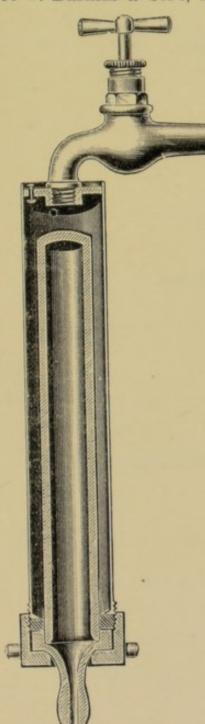
## DIVISION D.-Section 8. Domestic Filters. (Continued.)

Pasteur Germ Filter. Silver Medal, 1894.

Pasteur Chamberland Domestic Filter. Silver Medal, 1897.

> Pasteur-Chamberland Filter. Silver Medal, 1898.

To J. Defries & Sons, Limited.



Description.—The Pasteur Filter consists of one or more hollow cylinders with closed end, made of a fine porous substance or porcelain, through which the liquid filtered has to pass. Pasteur filters are made for various purposes and in all sizes, from that of a pocket filter up to that necessary for the filtration of town supplies.

Output per day, 5 gallons.

PRICES.—£1 1s., £1 11s. 6d., and £2 2s. Other patterns and prices on application.

Manufactured by J. Defries & Sons, Ltd., 147, Houndsditch, London, E.C. DIVISION D.-Section 8. Domestic Filters. (Continued.)

\* Magnetite Filter for Water.

Bronze Medal, 1894.

TO MAGNETITE FILTER CO.

## Porcelain Screw Tap for Filters.

Bronze Medal, 1892.

To C. E. GITTENS, LIMITED.

Description.—This Tap screws directly into the earthenware of the Filter.

Manufactured by C. E. GITTENS, LIMITED, 18, Paper Street, Redcross Street, E.C.

\* See Note on Page 20.

### DIVISION D .- Section 9. Mineral Waters.

#### Mineral Waters.

Bronze Medal, 1890.

To Shelvey & Co., Ltd.

PRICES.—Soda Water, 2s. per doz.; Lithia Water, 4s. per doz.; Seltzer Water 3s. per doz.; Potass Water, 3s. per doz.

Manufactured by Shelvey & Co., Limited, Brighton.

Potash, Seltzer, and Soda Waters.

Bronze Medal, 1892.

To C. Mumby & Co., Ltd.

Manufactured by C. Mumby & Co., Limited, The Hard, Portsmouth.

Potash, Soda, Seltzer, and Lithia Waters.

Bronze Medal, 1892.

To A. F. PERKINS.

The above-named waters are available through town and country agents, in screw-stoppered, corked, and syphon bottles, at uniform prices: one quality is alone manufactured.

Manufactured by A. F. Perkins, Hyde Park Factory, Southsea.

## DIVISION D .- Section 9. Mineral Waters. (Continued.)

Mineral Waters.

Bronze Medal, 1894.

To John Lyon & Co.

Manufactured by J. Lyon & Co., Liverpool.

Lime Juice.

Bronze Medal, 1894.

To Evans Sons & Co,

PRICES.—From 1s. per bottle.

Sole Consignees:—Evans Sons & Co., 56, Hanover Street, Liverpool; Evans, Leoch & Webb, London; Evans & Sons, Limited, Canada and United States.

Kop's Ale.

Bronze Medal, 1894.

To Kop's Brewery.

PRICES.—1s. 4d. per dozen half pints; 2s. per dozen pints, Town; 1s. 6d. and 2s. 6d., Country.

Manufactured by Kop's Brewery, Fulham, S.W.

DIVISION D. -Section 9. Mineral Waters. (Continued.)

Methods of Aerating Water by means of Compressed Carbon Dioxide.

Bronze Medal, 1898.

Sparklets.

Bronze Medal, 1899.

To Aerators, Ltd.



Description.—Small steel receivers containing compressed carbonic acid gas, which are placed in a special bottle in which the liquid to be aërated is placed. The steel receiver is broken by a screw cap on the bottle and the compressed gas liberated into the liquid.

PRICES.—Special bottle, 4s. 6d.; steel receiver, 1s. per box of 1 dozen.

Manufactured by AERATORS, LTD., Broad St. Avenue, London, E.C.

### DIVISION D.—Section 9. Mineral Waters. (Continued.)

### Aerated Waters.

### Bronze Medal, 1898.

TO CHEMISTS' AERATED & MINERAL WATER ASSN.

Description.—Table Waters in syphons and bottles—Soda Water, Potash Water, Seltzer Water, Lemonade, Ginger Ale. The following Medicinal Waters are specially prepared:—Lithia, Lithia and Potash, Piperazine, Lysidine, &c.

PRICES.—On application.

Manufactured by Camwal, Ltd., London, Manchester, Birmingham, Bristol, Harrogate, and Mitcham.

## Aerated Waters. Bronze Medal, 1898.

To Schweppes, Ltd.

Description.—Schweppes Soda Water, Schweppes Seltzer Water, Schweppes Potass Water, Schweppes Lithia Water, Schweppes Tonic Water, Schweppes Ginger Ale "Sweet," Schweppes Ginger Ale "Dry," Schweppes Sparkling Malvern Water.

PRICES .- On application.

Manufactured by Schweppes, Ltd., 49, Pall Mall, London, S.W.

# Aerated Waters prepared from Distilled Waters. Bronze Medal, 1898.

To Southall Bros. & Barclay.

PRICES.—Diamond Spark, Potash, Soda, Seltzer, Lemon, Tonic, Ginger—4s. 6d. per doz. quarts, 3s. per doz. pints. 2s. per doz. splits; Lithia—5s. per doz. quarts, 3s. 6d. per doz. pints, 2s. 6d. per doz. splits.

Manufactured by Southall Bros. & Barclay, Priory Mineral Water Works, Birmingham.

## DIVISION D .- Section 10. Soaps and other Detergents.

Carbolic Soaps. Silver Medal, 1889.

To F. C. CALVERT & Co.

PRICES.—Carbolic Toilet Soap, 6d. per Tablet; Carbolic "Anti-Mosquito" Soap, 6d. per Tablet; Carbolic Nursery Soap, 6d. per Tablet; Carbolic Shaving and Tooth Soap, 6d. and 1s. per Tablet or Stick; Carbolic "Prickly-Heat" Soap, 6d. and 1s. per Bar; Carbolic Domestic Soap, 6d. per 1lb. Bar; Carbolic Scouring Soap, 4d. per 1lb. Bar; Carbolic Soft Soap, 1s. and 2s. per 1-lb. and 2-lb. Jars.

Manufactured by F. C. CALVERT & Co., Manchester.

Vinolia Soap.

Bronze Medal, 1889.

Silver Medals, 1892 and 1896.

TO BLONDEAU ET CIE.

DESCRIPTION.—A white Toilet Soap, neutral, milled and superfatted; the basis made with edible fats, and only pure essential oils used as scents.

PRICES.—Premier, 4d; Floral, 6d.; Balsamic, 8d.; Toilet (Otto), 10d.; and Vestal, 2s. 6d. per Tablet. Shaving Soap: Sticks, 6d., 1s., 1s. 6d., and 2s. 6d. per Stick; Flat Cakes, 1s., 2s., and 2s. 6d.

Manufactured by VINOLIA Co., LIMITED, Malden Crescent, London, N.W.

Toilet Soaps. Silver Medal, 1898.

To EDWARD COOK & Co.

DESCRIPTION.—Savon de Luxe (made by a new process), and Toilet Soaps of every description; also Soap-Cream for infants and Shaving-Cream, scented, suitable for the Nursery and Toilet.

Manufactured by Edward Cook & Co., Soap Makers, London, E.

DIVISION D .- Section 10. Soaps and other Detergents. (Continued.)

Primrose Soap. Bronze Medal, 1890.

To John Evershed & Son.

DESCRIPTION .- Made from "Tallow" and Alkali.

Manufactured by J. EVERSHED & SON, Brighton.

# "Lanoline," and Preparations containing it. Bronze Medal, 1890.

To Burroughs Wellcome & Co.

Description.—"Lanoline" is a preparation of the fat obtained from sheep's wool, and being natural to the skin and hair, is absorbed by them at once.

PRICES.—"Lanoline," 1-lb. and 7-lb. Tins, any quantity, 2s. 8d. per lb.; "Lanoline" (Anhydrous), 1-lb. Tins, 3s. 4d. per lb.; "Lanoline" Ointment Base, 2s. 2d. per lb.; "Lanoline" Pomade, 1s. 6d. per pot; "Lanoline" Cold Cream, in pots, 1s. 6d. each; "Lanoline" Toilet Soap, 6d. per tablet; Toilet "Lanoline," 6d. and and 1s. per collapsible tube.

Manufactured by Burroughs Wellcome & Co., Snow Hill Buildings, E.C.

## Hydroleine. Bronze Medal, 1890.

To H. K. EDGE.

Description.—A Cleansing and Water-softening preparation in the form of Soap Powder.

PRICES.—16s. 9d. per cwt.; and in 1d. and 3d. Packets.

Manufactured by The New Hydroleine Co., Limited, The Castle Soap Works, Ashby-de-la-Zouch.

Pure Glycerine. Bronze Medal, 1897.

To PRICE'S PATENT CANDLE Co., LTD.

Made by Price's Patent Candle Co., Limited, Battersea, London, S.W.

### DIVISION D.-Section 11. Antiseptics and Disinfectants.

Carbolic Acid Preparations.

Silver Medals, 1889, 1890, 1896, and 1899.

Pure Carbolic Acid.

Silver Medals, 1892, 1894, 1897, and 1898.

To F. C. CALVERT & Co.

Description.—No. 5 Concentrated Carbolic must be well mixed with water, in proportion of one ounce of Acid to two quarts of water; and forms a solution of sufficient strength for deodorising drains, stables, &c., and for cleaning rooms infested with insects.

Fifteen per cent. Carbolic Disinfecting Powder is an inert non-cohesive base, combined with fifteen per cent. of Genuine Carbolic in a free state.

PRICES.—No. 5 Carbolic Acid, in ribbed Bottles, from 1s. to 6s. 6d. Fifteen per cent. Carbolic Disinfecting Powder, from 6d. to 1s. 6d.

Manufactured by F. C. CALVERT & Co., Bradford, Manchester.

Jeyes' Fluid (Perfect Purifier).

Coal Tar Disinfectant.

Bronze Medals, 1889, 1892, 1894, 1896, 1897, and 1898.

To JEYES' SANITARY COMPOUNDS Co.

Description.—It is a mixture of such portions of Distilled Coal Creosote as contain the maximum of neutral basis and other antiseptic principles, used for disinfecting purposes. It is not poisonous, and can be mixed with water in any proportion.

PRICES.—In Bottles, 6d. and 1s. each; 6s. per Gallon.

Manufactured by Jeyes' Sanitary Compounds Co., Limited, 64, Cannon Street, London, E.C.

## DIVISION D.-Section 11. Antiseptics and Disinfectants. (Continued.)

Improvements in Pharmaceutical Preparations. Silver Medals, 1889, 1890, and 1894.

> Compressed Chemical Substances. Silver Medal, 1898.

To Burroughs Wellcome & Co.

PRICES.—"Tabloid" Brand Products—Beef and Iron Wine, 2s. 6d. per ½lb. Bottle, 4s. 6d. per 1lb. Bottle. Beef and Iron Wine with Quinine, 3s. per ½lb. Bottle, 5s. 6d. 1lb. Bottle. "Kepler" Extract of Malt, 2s. 6d. per ¾lb. Bottle, 4s. per ½lb. Bottle. "Kepler" Solution of Cod Liver Oil in Malt Extract, from 2s. 6d. per Bottle. Pure Trypsin (Fairchild), 2s. per ¼oz., 6s. per 1oz. Hazeline (Distilled Extract of Witch Hazel), 1s. 6d. per 4oz. Bottle, 4s. 6d. 6oz. Bottle. "Hazeline" Cream (prepared with "Lanoline"), 1s. 6d. per 2oz. Pots. 16oz. "Vaporole Products," for Inhalation, 2s. 6d. per Box.

Manufactured by Burroughs Wellcome & Co., Snow Hill Buildings, E.C.

St. Bede Disinfectant.

Bronze Medals, 1889 and 1896.

TO ST. BEDE CHEMICAL CO.

Description. — Perchloride of Mercury Mixture: By the use of Eucalyptus and Thymol the ozone-producing properties and perfume of these articles are obtained, while the risk of accident is reduced to a minimum by the solution being coloured dark blue.

Sizes.—Small Boxes containing four Cubes, and large ones containing eight Cubes, each Cube capable of making 1 Quart of Disinfectant Solution equal to 1 in 1000 of Perchloride of Mercury.

PRICES.—Small Boxes, 1s. each; and large size, 1s. 9d. each.

Manufactured by The Hedworth Barium Co., Limited, 1, St. Nicholas Buildings, Newcastle-on-Tyne.

DIVISION D .- Section 11. Antisepties and Disinfectants. (Continued.)

### Lano-Creolin.

Bronze Medal, 1889.

To Burroughs, Wellcome & Co.

Description.—An Ointment containing 5 per cent. of Creolin (a non-poisonous substitute for Iodoform, Corrosive Sublimate, and Carbolic Acid).

Size.—2 oz. Collapsible Metal Tubes.

PRICE.—1s. each.

Manufactured by Jeyes' Sanitary Compounds Co., Limited, 64, Cannon Street, London, E.C.

Preparation of Eucalyptol.

Bronze Medal, 1890.

To J. TUCKER & COMPANY.

PRICES.—Eucalyptus Disinfectant Fluid (A) in 4 oz., 1s. 6d.; 8 oz., 2s. 6d.; 16 oz., 4s. 6d. Bottles; and in ½ Gallon and 1 Gallon Tin Bottles. Eucalyptus Disinfectant Fluid (B) in 1 Pint 1s. Glass Bottles, and in ½ Gallon and 1 Gallon Tin Bottles. Eucalyptus Disinfectant Powder in 2lb. 1s. Tin Canisters.

Manufactured by J. Tucker & Company, 51, Paddington Street, W.

## DIVISION D .- Section 11. Antisepties and Disinfectants. (Continued.)

# Preparations of Thiocamf. Bronze Medal, 1892.

To T. TYRER & Co.

DESCRIPTION.—Liquid Combination of Sulphur Dioxide, Camphor, and some other Aromatic Disinfectants.

Sizes.--In Bottles.

PRICES .- 1s. and 2s.

Manufactured by Thos. Tyrer & Co., Stirling Chemical Works, Stratford, E.

## Oxychlorogene. Bronze Medal, 1892.

TO MACKEY, MACKEY & Co., LTD.

Description.—Prepared as a non-poisonous Deodorizer, Antiseptic, and Disinfectant.

PRICE.—5s. per gallon.

Manufactured by Mackey, Mackey & Co., Limited, 175, Grange Road, Bermondsey, S.E.

## Kingzett's Mercuric Bactericide. Bronze Medal, 1892.

To SANITAS Co.

Description.—Five per cent. Mercuric Perchloride in a solution of Peroxide of Hydrogen of 5 vol. strength, and is preserved by Kingzett's patented process.

PRICES.—In patent stoppered pint bottles, 2s. each; in bulk, 10s. per gallon.

Manufactured by The Sanitas Co. Limited, Three Colt Lane, Bethnal Green, London, E.

DIVISION D.-Section 11. Antiseptics and Disinfectants (Continued.)

# Liquid Sulphur Dioxide for Disinfecting Purposes. Silver Medal, 1894.

Bronze Medals, 1896 1898, and 1899.

To A. Boake, Roberts & Co.

Description.—Pure Sulphurous Acid Gas (or Sulphur Dioxide) is compressed into liquid and stored in hermetically sealed tins, containing 20 ozs. each. Each tin or cylinder is fitted with a soft lead tube, which can be severed with a sharp knife and the gas liberated. The Sulphur Dioxide is also supplied in light drums fitted with valve, and containing about 9 lbs. each.

PRICES.—In the patent cylinders, 12s. per dozen, or 10s. 6d. per gross.

Manufactured by A. Boake, Roberts & Co., Limited, Stratford, London, E.

"Izal" Disinfecting Fluid.

Bronze Medals, 1894 and 1898.

To NEWTON, CHAMBERS & Co.

Sizes and Prices.—Ordinary Izal: Bottles—8 oz. 1s., 24 oz. 2s. 6d., 48 oz. 4s. 6d.; Casks—40 galls. 3s. 6d. per gall.; Drums—10 galls. 4s. 6d. per gall., 5 galls. 5s. per gall., 2 galls. 6s. per gall., 1 gall. 8s. per gall. Medical Izal: Bottles—4 oz. 1s. 6d., 8 oz. 2s. 6d. Winchester Quarts, 16s. per gall.

Manufactured by Newton, Chambers & Co., Limited, Thorncliffe, near Sheffield.

DIVISION D.-Section 11. Antisepties and Disinfectants. (Continued.)

### Disinfecting Soloids.

Silver Medals, 1896 and 1899.

To Burroughs Wellcome & Co.

Description.—"Soloid" Brand Products for disinfecting purposes consist of definite quantities of compressed chemicals. They immediately dissolve in water, forming solutions of known strength at the moment they are required.

```
SIZES .-
"Soloid" Corrosive Sublimate. 1.75 gr. 1 in 4 oz. of water = 1 in 1000 solution
                               8.75 \text{ gr.} 1 , 1 pt. , = 1 in 1000
                                                          = 1 \text{ in } 1000
                              17.5 gr. 1 ,, 1 qt. ,,
                              1 gr. . 1 ., 1000 c.c. ,,
                                                         = 1 \text{ in } 1000
                       22
'Soloid" Mercuric Potass Iodide, 1 gr. . 2 ,, 1 pt. ,,
                                                         = 1 \text{ in } 1000
            " " " 8.75 gr. 1 " 1 pt. " = 1 in 1000
"Soloid" L. G. B. . . . 1 in 1 pt. of water = Local Government Board Solution
                                                   (Memorandum, 1892).
"Soloid" Potassium Permanganate, 5 gr. . 1 in 1 pt. of water = 1 in 875 solution.
'Soloid" Carbolic Acid, 5 gr. . . . . . 1 ,, 1 pt. ,, = 1 in 900
              " 20 gr.
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Manufactured by Burroughs, Wellcome & Co., Snow Hill Buildings, London, E.C. DIVISION D.-Section 11. Antiseptics and Disinfectants. (Continued.)

#### Formalin.

### Bronze Medals, 1897 and 1898.

To Formalin Hygienic Co., Limited, 9 & 10, St. Mary-at-Hill, E.C.

Description.—Schering's Formalin is a 40 per cent. solution of formic aldehyde in water. It is colourless, and prepared for use as a deodorant and disinfectant.

Sizes.—4 oz. 8 oz. 16 oz. bottles.

PRICES. - 1s. 1s. 6d. 2s. 6d. each.

Manufactured by Chemische Fabrik auf Actien Vorm E. Schering, Berlin.

#### Chinosol.

Bronze Medals, 1897, 1898, and 1899.

To B. KÜHN, St. Mary-at-Hill, E.C.

DESCRIPTION.—A disinfectant for medical and surgical practice.

Sizes and Prices.—Chinosol Pure Powder: ½-oz. bottle, 1s.; 16-oz. bottle, 20s. Chinosol Compound Tablets, containing 15 or 8 grains each: 4-oz. bottle, 6s.; 8-oz. bottle, 11s. 6d.

For disinfecting and sanitary purposes—

Crude Chinosol, grain form: 1-oz. tin, 1s. 6d.; 4-oz. tin, 5s. Chinosol Sanitary Tablets: 12-tab. tin, 2s.; 160-tab. tin, 20s. Crude Chinosol Powder: 1-oz. tin, 6d.; 4-oz. tin, 1s. 6d. Sprinkling Disinfecting Powder: 1-lb. packet, 6d.; tin, perforated top, 9d.

Manufactured by FRITZSCHE & Co., Hamburg.

DIVISION D.—Section 11. Antiseptics and Disinfectants. (Continued.)

## Products of Coal Tar and Ammoniacal Liquor.

Silver Medals, 1898 and 1899.

TO BURT, BOULTON & HAYWOOD, LTD.

Description.—Tablets for disinfecting purposes and protection against moths.

PRICES.—Samples and prices upon application.

Manufactured by Burt, Botlton & Haywood, Ltd., 64, Cannon St., London, E.C.

Chloros.

Bronze Medal, 1898. Silver Medal, 1899.

TO UNITED ALKALI CO.

DESCRIPTION.—"Chloros" is a solution of sodium hypochlorite containing 10 <sub>0</sub>/° of active chlorine. This product combines the disinfecting power of chlorine with convenience for handling and absence of objectionable odours. "Chloros" is not a poison.

PRICE.—Standard, 1s. per gallon at Widnes.

Manufactured by The United Alkali Co., Ltd. (Gaskell & Deacon's Works), Widnes.

DIVISION D.—Section 11. Antisepties and Disinfectants. (Continued.)

Lozar Disinfectant.

Bronze Medal, 1898.

To A. BOAKE, ROBERTS & Co.

Description.—Antiseptic, disinfectant, and deodoriser. In two qualities—Refined, for surgical, hospital, and domestic purposes; and Crude, for drains, stables, and slaughter-houses. A derivative of Phenol. In liquid or powder containing various strengths (from 5 to 25 per cent. of Lozar). Miscible with water in any proportion.

PRICE.—Liquid, 5s. per gallon; Powder, 5 %, £6 per ton; 10 %, £7 $\frac{1}{2}$ per ton; 15 %, £7 10s. per ton; 20 %, £8 per ton; 25%, £8 10s.

Manufactured by A. Boake, Roberts & Co. Stratford, London, E.

Anti-Diphtheria Serum of High Potency.

Bronze Medal, 1899.

To PARKE, DAVIS & Co.

Manufactured by Parke, Davis & Co., 111, Queen Victoria Street, E.C.

DIVISION D.—Section 12. Disinfecting Apparatus.

Disinfecting Sheet.

Bronze Medal, 1892.

To BUGLER & Co.

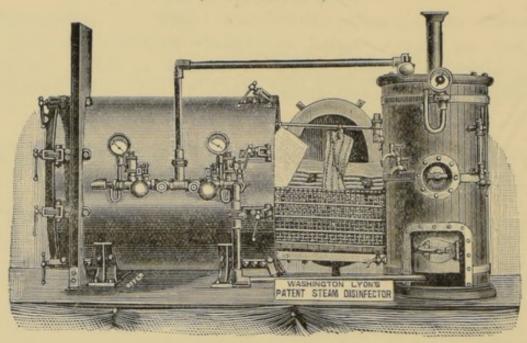
Manufactured by Bugler & Co., Putney.

DIVISION D .- Section 12. Disinfecting Apparatus. (Continued.)

Washington Lyon's Steam Disinfector.

Silver Medals, 1889, 1890, and 1892.

To Manlove, Alliott & Co. (1889); and Washington Lyon (1890 and 1892).



Description.—The Apparatus consists essentially of a Steam Jacketted Disinfecting Chamber. The process of disinfection is performed in the Chamber by means of High Pressure Steam. Steam is also admitted into the Jacket, and as the Steam in the Jacket is always maintained at a higher temperature than the Steam in the Chamber, the latter is kept dry. Valves and Fittings are all self-acting, so that steam is automatically admitted into both the Chamber and the Jacket at the required pressure. The Apparatus is strongly constructed of Iron or Steel Boiler-Plates, with strong Steel Ends capable of resisting the working pressure. The Fastenings are simple, and the Apparatus can be opened and closed very quickly, and is perfectly self-contained, requiring no brickwork setting. The usual arrangement is to have a Door at each end, each Door opening into a different room, so that the infected articles are placed in the Machine in one room, and the disinfected articles taken out into another room, and the two need not come in contact with each other, or disinfected articles be re-infected while being removed through a room in which infected articles have been placed.

PRICES. - From £100 to £233.

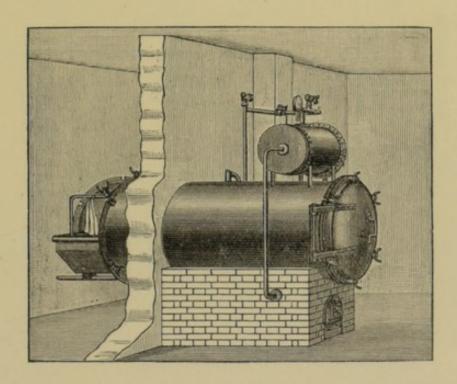
Manufactured by Manlove, Alliott & Co., Limited, Engineers, Nottingham.

DIVISION D.-Section 12. Disinfecting Apparatus. (Continued.)

Steam Disinfector.

Bronze Medal, 1894.

To Anders Borch Reck.



Description.—Disinfector without steam jacket working with  $1\frac{1}{2}$  lbs. steam pressure, with hanging cover inside to prevent moisture from getting on the articles in the machine, and of sufficient capacities to disinfect 23-235 cubic feet of room an hour; they are protected against loss of heat by a covering of hair felt. They are made of strong steel plates and fitted with two doors, one for admission and the other for delivery, with a carriage for the objects that is self-sustained when drawn out; steam pressure regulating valve, that automatitally keeps an even steam pressure in the disinfector quite independently of the boiler pressure.

Sizes.—They are made in 17 sizes.

PRICES-From £49 to £162.

Manufactured by The Reck Heating Co., Limited, Copenhagen.

DIVISION D .- Section 12. Disinfecting Apparatus. (Continued.)

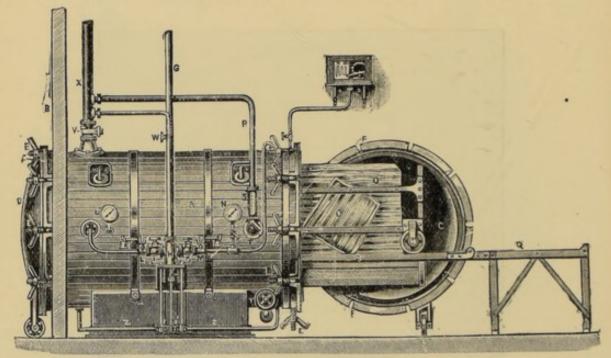
Geneste Herscher Steam Disinfecting Apparatus.

Silver Medals, 1894 and 1896.

Equifex Pressure Disinfecting Apparatus. Silver Medal, 1898.

> Equifex Steam Disinfector. Silver Medal, 1899.

To J. Defries & Sons, Limited.



Description.—Confined steam (100bs. pressure), Netley pattern.—These stoves are unjacketed, and the steam is kept constantly saturated. The preliminary warming of the objects to be disinfected is conducted in the same operation as the expulsion of the air from the chamber. The expulsion of air from the pores of the objects is completed by periodically blowing off steam. The objects are dried in the stove by a current of air admitted through a valve, warmed by passing over steam pipes, and extracted by a steam jet. As the steam is kept constantly saturated, the variations of pressure correspond to the temperatures, and are recorded on a self-registering gauge, the diagram of which shows at what times and for what periods the disinfection has been conducted.

Current Steam Under Low Pressure (2lbs. pressure).—These stoves are intended for the use by authorities who cannot afford the stoves at higher pressure. They include steam generator and stove, and the pressure is maintained constant by the use of a water-seal, without any mechanical valve whatever.

Sizes.—Netley pattern, length 4 ft. 13 in. to 13 ft. 6 in. Internal diameter, 3 ft. to 6 ft.

PRICE.—On application.

Manufactured by J. Defries & Sons, Limited, 147, Houndsditch, London, E.C.

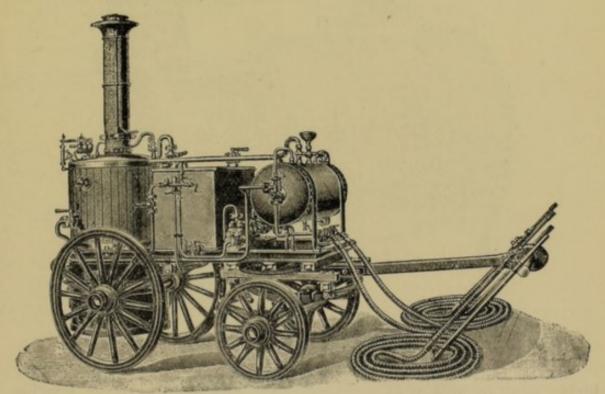
DIVISION D .- Section 12. Disinfecting Apparatus. (Continued.)

Apparatus for rapidly Cleaning and Sterilizing Cattle Markets.

Silver Medal, 1896.

Portable Hot Spray Disinfector. Silver Medal, 1897.

To J. Defries & Sons, Limited.



Description.—In this appliance suitable disinfectant is automatically fed from a tank and mixed with water from a high pressure boiler in any desired proportion. Flexible extension tubes are provided, through which this water is projected on to the surface. The jet is so formed as to produce a flat, scraper-like spray. The boiling solution is projected with a high velocity into crevices of the surface. It is mounted complete on a light four-wheeled truck. The extension tubes are usually thirty feet long, and the appliance is made in two sizes with two and four extension tubes respectively.

PRICE. - 2 tube sprayer, £225; 3 tube sprayer, £350.

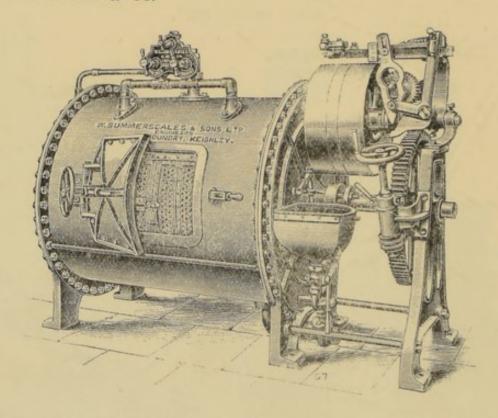
Manufactured by J. Defries & Sons, Ltd., 147, Houndsditch, London, E.C.

DIVISION D.—Section 12. Disinfecting Apparatus. (Continued).

Washing Machine for Disinfecting under Steam Pressure.

Bronze Medals, 1898 and 1899.

To SUMMERSCALES & Co.



Description.—This machine is made entirely of metal, the outer cylinder being of mild steel with cast iron ends, and the inner washing compartment of perforated brass, with cast iron ends lined with brass. This inner cylinder is fitted with our patent automatic reversing motion and locking gear, for changing the direction of rotation, and effectually locking the starting gear when loading or unloading the machine. The machine is fitted with improved steam-tight door, closing on an asbestos cushion, enabling the clothes to be disinfected under steam pressure.

Sizes.—No. 1, 200 shirts; No. 2, 150 shirts.

PRICES.— ,, £135. ,, £110 on rails at Keighley.

Manufactured by W. Summerscales & Sons, Ltd., Engineers, Keighley.

## THE ROYAL SANITARY INSTITUTE.

Patron - - H.M. THE KING.

## SUPPLEMENTARY

## ILLUSTRATED.

## LIST OF EXHIBITS

TO WHICH

MEDALS HAVE BEEN AWARDED
AT THEIR EXHIBITIONS,

HELD IN

CONNECTION WITH THE CONGRESSES

IN

LONDON (WATER SUPPLY FIT-TINGS), 1901.

MANCHESTER, 1902.
BRADFORD, 1903.
GLASGOW, 1904.

## London

OFFICES OF THE ROYAL SANITARY INSTITUTE,

MARGARET STREET, LONDON, W.

## THE ROYAL SANITARY INSTITUTE.

SUPPLEMENT TO THE ILLUSTRATED LIST OF EXHIBITS TO WHICH MEDALS HAVE BEEN AWARDED AT THE EXHIBITIONS HELD IN CONNECTION WITH THE ANNUAL CONGRESS, 1901—1904.

## JUDGES OF THE EXHIBITIONS.

1901—1904. H. D. SEARLES-WOOD, F.R.I.B.A., Chairman. A. WYNTER BLYTH, M.R.C.S., L.S.A. 1901-1903. P. BOOBBYER, M.D. 1903-1904. H. PERCY BOULNOIS, M.INST.C.E. 1901—1904. 1901—1904. T. W. CUTLER, F.R.I.B.A. 1901-1904. E. T. HALL, F.R.I.B.A. 1901-1904. A. BOSTOCK HILL, M.D., D.P.H. 1903-1904. H. H. LAW, M.INST.C.E. JAMES LEMON, M.INST.C.E., F.R.I.B.A. 1901. T. DE COURCY MEADE, M.INST.C.E. 1902. 1902—1904. J. LANE NOTTER, M.A., M.D. 1901—1904. A. NEWSHOLME, M.D., D.P.H. LOUIS C. PARKES, M.D., D.P.H. 1901—1904. 1901-1904. G. REID, M.D., D.P.H. 1901-1904. J. OSBORNE SMITH, F.R.I.B.A. 1901-1904. W. C. TYNDALE, M.INST.C.E. 1901. SAMUEL RIDEAL, D.SC.

1902-1904.

1902-1904.

## PREFACE.

J. E. WILLCOX, ASSOC.M.INST.C.E.

J. E. WORTH, M.INST.C.E.

This Illustrated List has been published by the Institute in the belief that it will be a useful guide to Professional Men and to the Public in the selection of Appliances and Articles included in the extensive scope of these Sanitary and Domestic Exhibitions.

Most of the new improvements and recent developments in Sanitary matters have been brought forward at the Exhibitions which have been held nearly every year since 1877. The present List refers only to the Awards made from 1901—1904. A list of those made from 1888—1900 can be obtained at the offices of the Institute.

The Institute has, by inaugurating a carefully devised system of.

judging, endeavoured to avoid the unreliability which so often attaches to Awards given at Public Exhibitions.

In the first place, uniformity in the principle upon which the Awards have been based is ensured, as far as possible, by giving stability to the Court of Judges—that is to say, that while gradual changes are made in the personnel of the judges, the larger number remain in office for several years. This method, of course, also gradually forms a very experienced body of judges.

In the next place the Institute has always been careful that the Board of Judges shall be composed of men of different professions—Engineers and Architects, as well as Medical Officers of Health and Chemists.

Lastly, the judges have laid it down as a guiding principle that the Awards are to be made primarily in the interests of the Public, and that the great point to be aimed at is to afford a trustworthy Guide to the Public as to what is good and reliable amongst the Sanitary Appliances and other Exhibits which have come before the judges. In order to effect this object no Award is, as a rule, given to any Exhibit unless some of the judges know by their own experience that it is of value, or unless it has been subjected to special practical tests carried out at the time of the Exhibition or subsequently.

Note.—In 1895 the Council decided to make the Awards at the Exhibition Silver Medals and Bronze Medals in the place of Bronze Medals and Certificates. As the Medals now given are intended to have the same significance as the former Awards, it has been thought desirable to alter the description of the Awards previously given in accordance with this decision.

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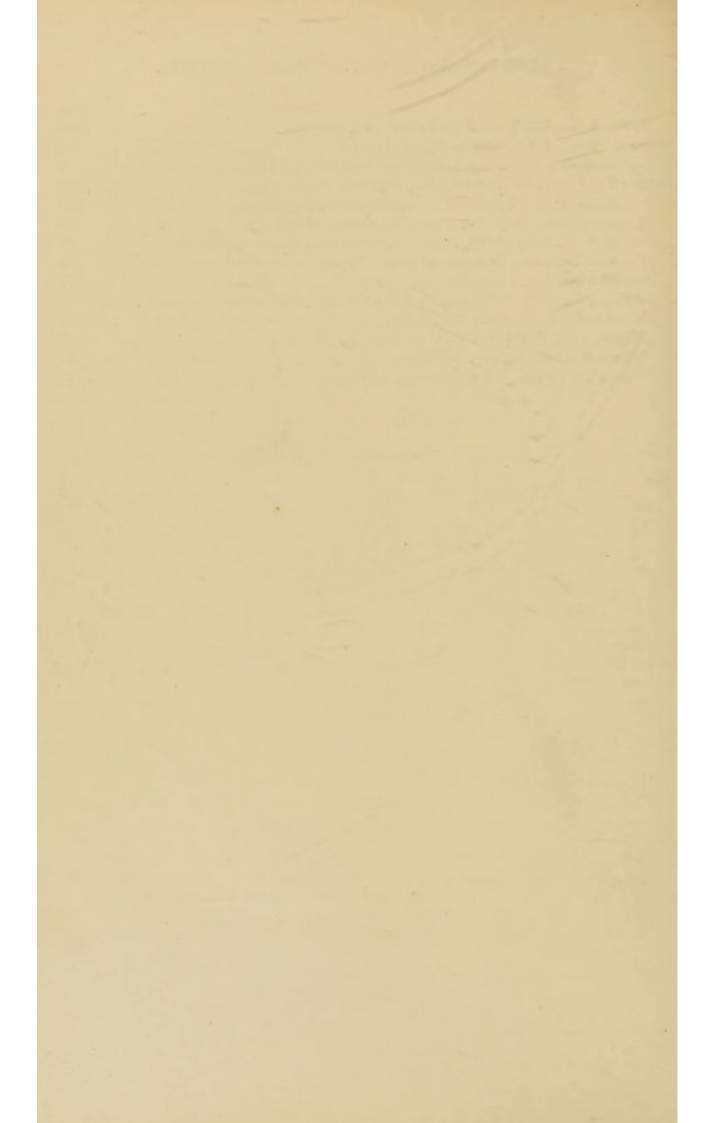
# ALPHABETICAL LIST OF EXHIBITORS AND MAKERS WHO HAVE RECEIVED AWARDS.

Except where otherwise recorded the names given in this List are both Exhibitors and Makers.

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# SUPPLEMENT TO THE ILLUSTRATED LIST OF EXHIBITS

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HELD IN CONNECTION WITH THE

#### ANNUAL CONGRESSES.

In the following pages all the Exhibits for which Awards were given at the Exhibitions in London (Water Supply Fittings), at Manchester, Bradford, and Glasgow, are mentioned, but in many cases it is obviously unnecessary, for practical purposes, to insert an Illustration, and in these cases the description or name only of the Exhibits are given.

DIVISION B.—Section 2. Various Trades and Manufactures.

Surveying and Drawing Instruments.

Bronze Medals, 1902 and 1903.

To A. G. THORNTON.

Manufactured by A. G. THORNTON, St. Mary Street, Deansgate, Manchester.

Vacuum Cleaning Apparatus, Rogers Field Medal, 1903. Silver Medal, 1903.

TO NORTHERN VACUUM CLEANER CO., LTD.

Description.—The apparatus is provided with a pair of Vacuum Pumps actuated by an oil or electric motor, which serve to maintain an "exhaust" of several pounds to the square inch. Varying lengths of hose are connected with this "exhaust," and terminate in so-called "cleaners" or "renovators," which consist of tubes flattened out at the end into a kind of long slit. The "renovator" is rubbed up and down the carpet or the cloth coverings of seats or chairs, from which it rapidly sucks out all the dust. The dust is extracted not only from the surface but from the body of the carpet also, so that at the end of the process not the slightest cloud of dust can be detected on beating the material. In a similar way the dust may be removed from the walls by means of a special cleaner, which consists of a brush of horse-shoe shape provided with an exhaust tube in the centre. The dust and dirt rapidly travel along the hose to the exhaust cylinder of the machine, where they are deposited upon a screen.

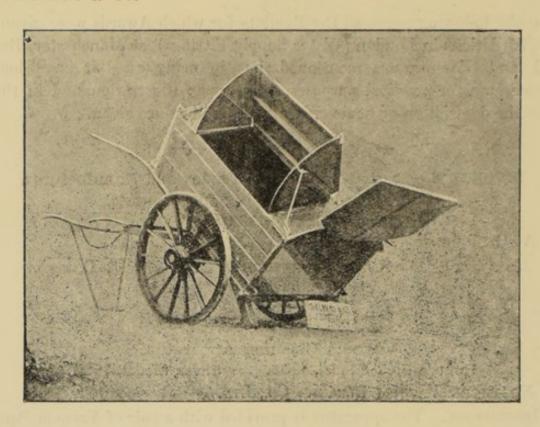
Manufactured by The Northern Vacuum Cleaner Co., Ltd., Leeds.

DIVISION B .- Section 9. Municipalities.

Two Wheel Dust Cart.

Bronze Medal, 1902.

TO CHALMERS & Co.



DESCRIPTION.—The collapsible hoppers are made of steel, and when open are supported by stays at the side, they open and shut by automatic levers in front, one or both at the same time, when the hoppers are closed these carts are practically airtight. They are tipped by simply releasing locking bar, the tailboard is a fixture and does not require to be taken off at all, it is opened by the action of cart, automatically, and closes itself, also lock when the vehicle is pulled up.

Manufactured by Chalmers & Co., Redhill, Surrey.

#### DIVISION B.—Section 9. Municipalities—continued.

Dust Van. Silver Medal, 1903.

TO CHALMERS & Co.



(For description see page 14.)

Manufactured by Chalmers & Co., Redhill, Surrey.

Sizes.—To carry from 2 to 6 cubic yards.

PRICES.—From £30 to £60.

Non-Slip Materials.

Bronze Medals, 1902 and 1903.

TO HARD YORK NON-SLIP STONE CO.

(See page 60 of principal list.

Bronze Medal Re-affirmed.

Hard York Non-Slip Stone.

DIVISION B .- Section 9 .- Municipalities -continued.

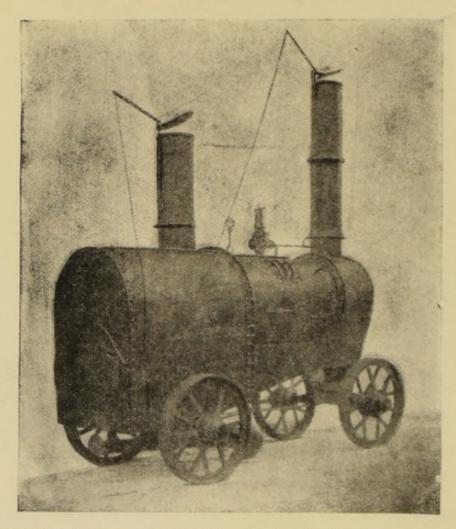
Horsfall Destructor. Silver Medal, 1902.

To Horsfall Destructor Co.

(See page 74 of principal list.)

Portable Destructor. Silver Medal, 1903.

TO HORSFALL DESTRUCTOR CO., LTD.



Description.—This consists of a "Horsfall" Destructor Cell connected to and forming part of a "Multitubular" Boiler, the whole mounted on Travelling Wheels and provided with a dustcatcher in the smoke box, a chimney, and an auxiliary by-pass chimney at the rear. The Furnace consists of a reverberatory arch, combined steam-jet blowers, and side air-boxes for hot blast, special grate bars, closely fitting firing doors, and ashpit door. The external casing is of steel plate. The Boiler has the usual fittings and mountings, and a steam connection for driving an engine.

Size.—Standard.

PRICE.—About £500.

IN PARTS.—For shipment if necessary.

Manufactured by The Horsfall Destructor Co., Ltd., Leeds.

DIVISION B.—Section 9.—Municipalities—continued.

Dust Van with Cover.

Silver Medals, 1902 and 1903.

To WILLIAM GLOVER & SONS, LTD.

(See page 247 of principal list.)

Rotary Watering Van.

Bronze Medal, 1902.

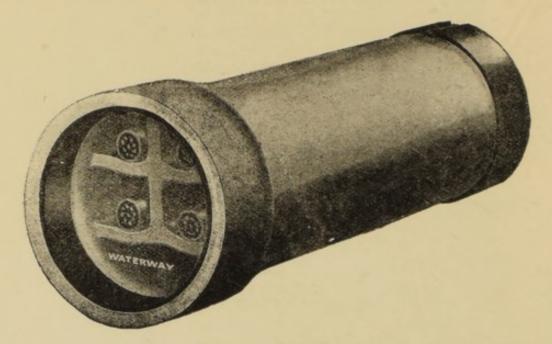
To WM. GLOVER & SONS, LTD.

(See page 120 of principal list.)

DIVISION C .- CLASS I .- Section 1. Materials and Construction.

## Stoneware Conduits for Electric Cables. Bronze Medals, 1902 and 1903.

TO AMES CROSTA SANITARY ENGINEERING CO., LTD.

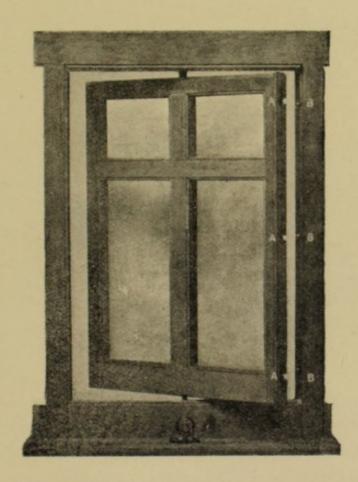


DESCRIPTION.—The conduits are formed circular externally, similar to an ordinary drain pipe, but are divided internally by partitions into any required number of Cable-ways, a suitable space being left at the invert for a waterway to drain away any water or moisture that may find its way into the conduit; a sufficient distance is allowed between the partitions at the joints to permit any leakage falling to the invert, thus keeping the Cable-ways perfectly dry.

Manufactured by Ames Crosta Sanitary Engineering Co., Ltd., Nottingham. DIVISION C.—CLASS I.—Section 1. Materials and Construction—cont.

Reversible Locking Window. Bronze Medal, 1902.

To GEO. A. CHADDOCK.



DESCRIPTION.—The window sash is fixed on a vertical pivot, and by means of an arrangement of cams actuated by a rotating handle at the bottom or side of the window, the sash can be slightly raised above the beading and turned to and locked in several positions.

PRICE.-According to size of window.

General Excellence of Door and Window Furniture, and Brass Castings.

Bronze Medal, 1903.

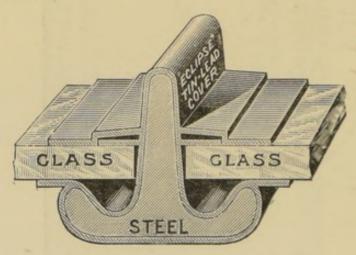
To W. & R. LEGGOTT, LTD.

DIVISION C .- CLASS II .- Section 1. Materials and Construction .- cont.

Eclipse Glazing.

Bronze Medal, 1902.

To Mellowes & Co.



Description.—The glazing consists of a steel tie-bar entirely covered with a tin-lead cover having webs which are dressed down on to the glass. No putty, paint, nor asbestos is required. The section of bar depends on distance between supports.

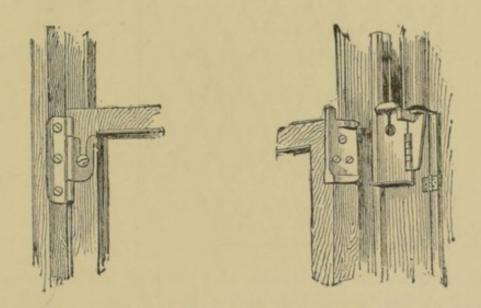
PRICES vary according to size and kind of roof.

Manufactured by Mellowes & Co., Corporation Street, Sheffield.

DIVISION C.—CLASS II.—Section 1. Materials and Construction.—cont.

## Sash Windows Opening Inwards for Cleaning. Silver Medal, 1904.

To Brown & Co.



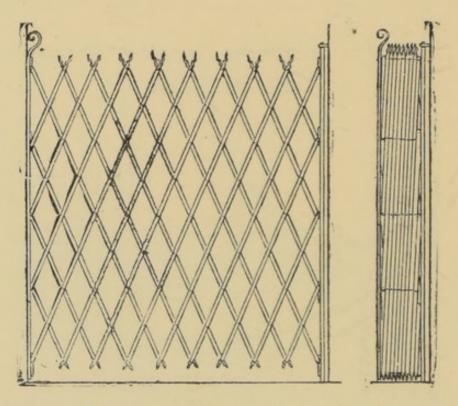
DESCRIPTION.—The sashes of these windows combine the movements of rising and falling, with opening inwards for cleaning and ventilation purposes, and the prevention of window-cleaning accidents. The upper sash can be pivoted either in the centre or at the side.

Manufactured by Brown & Co., 134, West Nile Street, Glasgow.

DIVISION C .- CLASS I .- Section 1. Materials and Construction-cont-

## Collapsible Gate, Self-sustained without Track Rails. Bronze Medal, 1904.

To E. WORRALL & Co.



Description.—The gate consists of a sheet of lattice work pivotally connected at every intersection, with surfaces of brass between the surfaces of steel. The lattice is mounted upon hanging and closing stiles, which are formed of a special section of steel. The stiles so grip the head and nut of a special form of bolt which connects it with the lattice work, that while the bolt is permitted to slide freely within the stiles and allow the lattice work to collapse and extend, it is not permitted to become detached. The gate may be made in any size and strength, and collapses and extends without the assistance of track rails.

Sizes.—5 ft. high; 5 ft. wide; 3 in. thick.

PRICE.-£4.

Manufactured by E. Worrall & Co., Iron Gate Works, Cuerdon Street, and 143, Dale Street, Liverpool.

DIVISION C .- CLASS I .- Section 4. Wall Papers and Coverings.

"Mezotil," a Non-absorbent Wall and Ceiling Covering.

Bronze Medal, 1902.

To LONDON TABLET CO.

Description.—This covering is made in Zinc, Enamelled in various designs.

Sizes.—In sheets, 36 in.  $\times$  24 in., 36 in.  $\times$  27 in., and 27 in.  $\times$  27 in., with borders from 3 in. to 9 in. in width.

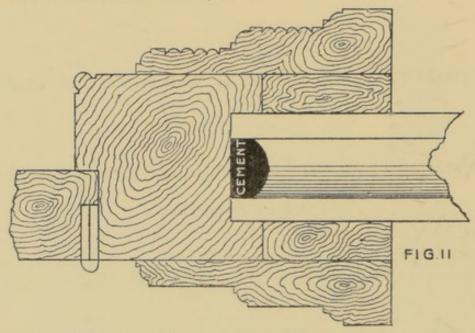
PRICES.—According to size and design, from 3s. to 4s. 8d. a sheet.

Manufactured by The London Tablet Co., Sydenham, S.E.

### DIVISION C.—CLASS I.—Section 4. Wall Papers and Coverings. (Continued.)

## Fireproof Partition Walls. Bronze Medal, 1902.

To FIREPROOF PLATE WALL CO., LTD.



Description.—These walls are erected with thin plates or slabs made of a fire-resisting material. The edges of each slab are so formed as to interlock, and are secured to each other by means of a cement grouting poured down holes formed in the vertical length of the plates. This grouting fills all the interstices, both horizontal and vertical, and unites all the plates together as one slab. In addition to these through vertical holes there are a number of vertical holes which do not pass through the full length of the plate, thus forming a series of air chambers, which not only lighten the plate, but tend to resist the passage of heat and sound. In long or very high walls the structure is strengthened by the insertion of iron rods in the through vertical holes; these rods are secured to the floor and ceiling, and render the largest walls perfectly firm and rigid. The walls being built of dry smooth plates can be very rapidly erected, and can be papered or distempered in a few hours after completion. When required to be painted or tiled, the faces of the plates are left rough and finished with a skinning coat or floated with cement.

Sizes.—Walls of any size can be erected.

PRICES.—Prices vary considerably in relation to the quantity and finish required and the district in which erected.

IN PARTS.—All the Walls are erected complete by the workmen of the Company.

Manufactured by The Fireproof Plate Wall Co., Ltd., Manchester; and The London Fireproof Plate Wall Co., Ltd.

DIVISION C .- CLASS I .- Section 5. Floors.

Mastic Asphalte.

Silver Medal, 1904,

To THE LIMMER ASPHALTE PAVING Co., LTD.

Manufactured by The Limmer Asphalte Paving Co., Ltd., 2, Moorgate Street, London, E.C.

DIVISION C.-CLASS I.-Section 8. Laundry Appliances.

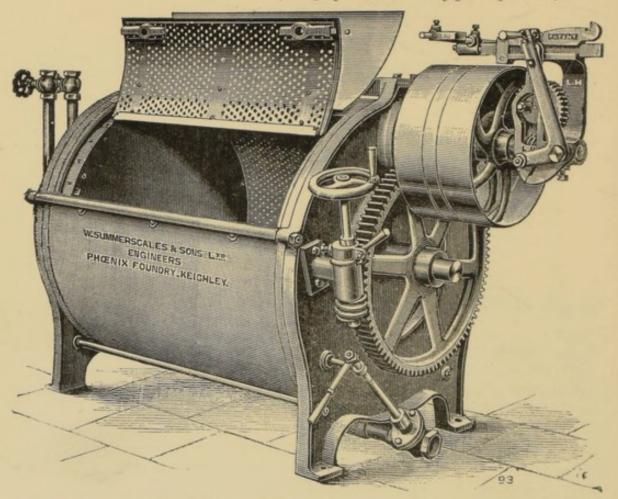
Laundry Machinery. Silver Medal, 1902.

Challenge "Renown" Washing Machine, with large door and spring bolts.

Bronze Medal, 1904.

To W. SUMMERSCALES & SONS, LTD.

(See pages 86 and 87 of principal list.)



Description.—The above machine is made entirely of metal, the outer case being of galvanised mild steel and the inner washing compartment of perforated brass; the door is made the full width of machine, which facilitates the loading and unloading of same. The machine consists of a truly-turned cast-iron steam-heated roller, 2 ft. diameter, having steel gudgeons, and carried in sliding blocks lined with gun-metal in the rotating bearing. The bed, which is also steam-heated, is of cast iron in one section, truly milled out and polished by special machinery to the circle of the roller when covered. The machine is driven by pulleys, at right angles to the roller, and spur gear arranged to give two rates of speed, then by worm and wheel giving motion to a longitudinal shaft provided with pinions, which engage with spur wheels of large diameter, keyed on each end of roller. The pressure between the bed and roller can be regulated by hand to any degree, and is always elastic, being controlled by suitable spiral springs.

PRICES .- £150 and £160.

Manufactured by W. Summerscales & Sons, Ltd., Keighley.

#### DIVISION C .- CLASS I .- Section 8. Laundry Appliances - continued.

#### Wash Tubs on Pedestals. Bronze Medal, 1902.

To George Howson & Sons, Ltd.

(See page 88 of principal list.)

#### Equipoise Wringer and Mangler. Bronze Medal, 1902.

To Kenworthy & Co.

(See page 84 of principal list.)

### Paragon Washer, Wringer, and Mangle combined. Bronze Medal, 1902.

To Kenworthy & Co.

(See page 85 of principal list.)

### Fireclay Wash Tub, with back-splash Rim perforated for Tap. Bronze Medal, 1904.

To Messrs. J. & M. CRAIG, LTD.

Description.—Fireclay Wash Tubs, white enamelled inside and on front and ends outside, with ledge at back perforated for taps, and corrugated on front for rubber.

Sizes.—27 in. long  $\times$  24 in. wide at top, and 19 in. wide at bottom  $\times$  15 in. deep, outside sizes. 30 in. long  $\times$  24 in. wide at top, and 19 in. wide at bottom  $\times$  15 in. deep, outside sizes.

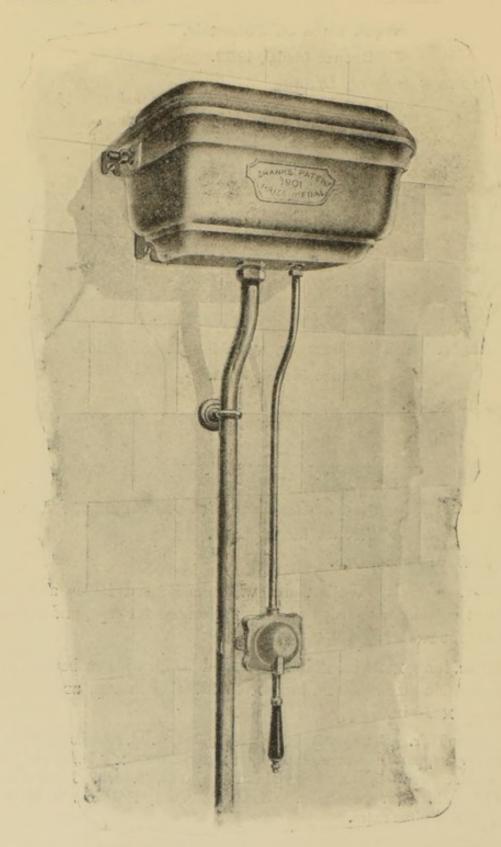
PRICES.—59s. and 65s. each respectively; if with rubber, 3s. 6d. each extra. White enamelled fireclay supports for same, 18 in. high × 19 in. wide × 6 in., at 10s. 6d. Brass plugs with screwed tail, nut, union and tail pipe, at 4s, 6d. each. Brass chain with stay, at 6d. each. 3-in. screw-down brass taps, indexed "Hot" and "Cold," at 12s. 6d. each. Waste pipes extra,

Manufactured by J. & M. CRAIG, LTD., Kilmarnock.

#### DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply.

#### Jet Waste-Preventing Cistern. Bronze Medal, 1901.

To SHANKS & CC



The arrangement This chamber fills The depression of the diaphragm, by drawing the handle towards the user, sends DESCRIPTION.—The Cistern contains only the ball valve and a siphon bend. shown with handle contains a little chamber covered by a rubber diaphragm. a jet of water into the siphon bend of cistern and starts the action from the cistern.

Sizes.—2 galls.,  $2\frac{1}{2}$  galls., 3 galls.

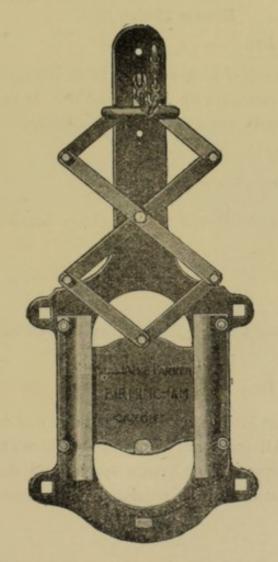
Prices.—£1 4s., £1 5s., £1 6s.

Manufactured by Shanks & Co., Barrhead, N.B.

DIVISION C .- CLASS II .- Section 1. Apparatus For Water Supply-cont

Lattice Gear Quick Opening Valve.
Bronze Medal, 1902.

TO WILLIAM E. FARRER.



Description.—This is a form of quick-opening penstock, actuated by a lattice gearing as illustrated.

Sizes and Prices.—6 in., 30s.; 9 in , 35s.; 12 in., 40s.; 15 in., 55s.; 18 in., 70s. each.

Manufactured by W. E. Farrer, 36, Cannon Street, Birmingham.

Tapping Machines for large connections in water-mains under pressure.

Silver Medal, 1901.

To A. P. SMITH MANUFACTURING Co.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply—cont.

## "Claybury" Self-Closing, Non-Concussive Valve. Bronze Medal, 1901.

To Doulton & Co., Ltd.

Description.—The self-closing lavatory valve is provided with a special chamber to prevent concussion on high pressure. It can be regulated for any pressure and all parts are accessible without disconnecting the supply.

Sizes.  $-\frac{1}{2}$ " and  $\frac{3}{4}$ ".

PRICES.-From 13s. 6d.

Manufactured by DOULTON & Co., LTD., Lambeth, S.E.

Automatic Temperature-Regulating Self-Closing Valves.

Bronze Medal, 1901.

To Doulton & Co., Ltd.

DESCRIPTION.—These fittings are non-concussive and can be regulated to suit any pressure. All parts are easily accessible without breaking any joint on the supply-pipes. They have a special and simple arrangement by which the temperature can be regulated not to exceed a given point.

Sizes.—1" and  $1\frac{1}{4}$ ".

PRICES.-From £4 4s.

Manufactured by DOULTON & Co., LTD., Lambeth, S.E.

Enamelled Cast Iron. Silver Medal, 1902.

To CANNON IRON FOUNDRIES, LTD.

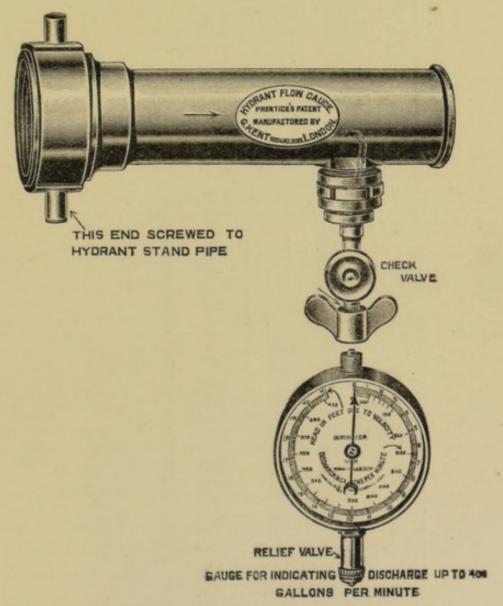
(See page 62 of principal list.)

DIVISION C .- CLASS II .- Section 1. Apparatus for Water Supply-cont.

"Prentice's" Gauge for Hydrants on the Pilot Tube Principle.

Bronze Medal, 1901.

To GEORGE KENT.



DESCRIPTION.—For ascertaining the delivery of hydrants and to enable water and fire brigade authorities to prove if the flow is that due to the static pressure.

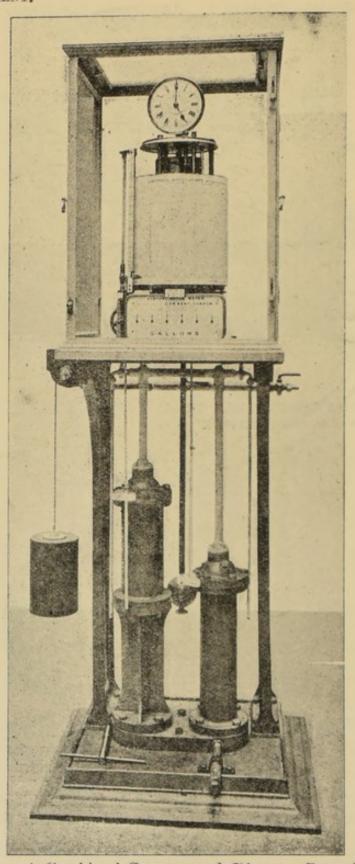
PRICE £15.

Manufactured by George Kent, 199-202 High Holborn, W.C.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply—cont.

Counter & Diagram Recorder for "Venture" Meter. Silver Medal, 1901.

TO GEORGE KENT.



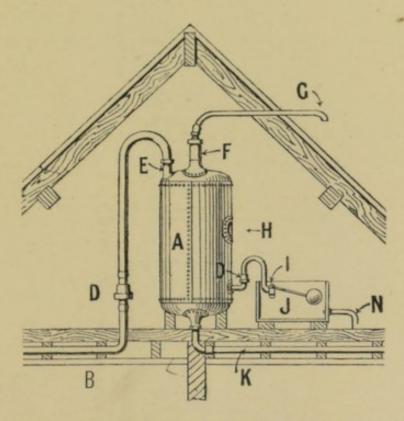
DESCRIPTION.—A Combined Counter and Diagram Recorder for any size Venturi Meter, showing by diagram the rate of flow at any moment and by counter the total quantity passed.
Only supplied complete with the Venturi Meter Tube.

Manufactured by George Kent, 199-202, High Holborn, W.C.

DIVISION C.—CLASS II.—Section 1. Apparatus for Water Supply—cont.

# Non-ball Valve Cylindrical Store Cistern. Bronze Medal, 1902.

To THE SANITARY APPLIANCES SYNDICATE.



Description.—In Fig. 1, G is the air pipe, B the service pipe, K the house supply pipe. By I, J, and N the hot water supply is provided. As in the main service pipe B, so in I the non-return or check valve D is fixed. The cistern is always full and at high pressure unless the main supply is cut off. Water once having passed into the store cistern can never return, as the check valve D, being inserted in the supply pipe near the entrance into the store cistern, is always closed when water is not entering the store cistern, thus isolating each cistern, and giving protection from all fouling and contamination.

Sizes.—From 10 to 2,000 gallons capacity.

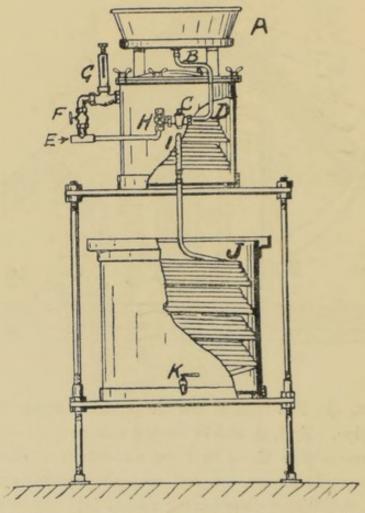
PRICES.—For 125 galls., £8 15s. 6d.; 200 galls., £10 13s. 8d.; 400 galls., £15 15s.

Manufactured by The Sanitary Appliances Syndicate, Ltd.

DIVISION C .- CLASS II .- Section 2. Filtering and Softening Water.

## Pakes' and Barnes' Milk Purifier. Bronze Medal, 1903.

To J. Defries & Sons, Ltd.



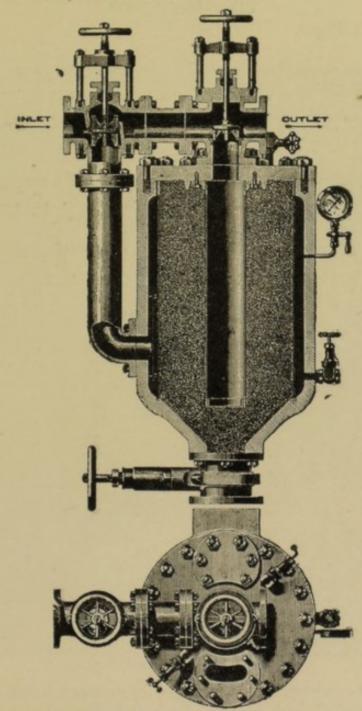
DESCRIPTION.—The apparatus is designed to give a rapid supply of milk which has been raised nearly to 100° C, with no appreciable alteration of flavour. This result is attained by conducting the entire process in a single run of coils without exposing the milk to air until it has been cooled to practically atmospheric temperature, and by raising and lowering the temperature by means of steam and water very much more rapidly than has hitherto been usual.

Manufactured by J. Defries & Sons, Ltd., 147, Houndsditch, E.C.

DIVISION C.—CLASS II.—Section 2. Filtering and Softening Water—

Feed Water Filter. Bronze Medal, 1902.

TO MATHER & PLATT, LTD.



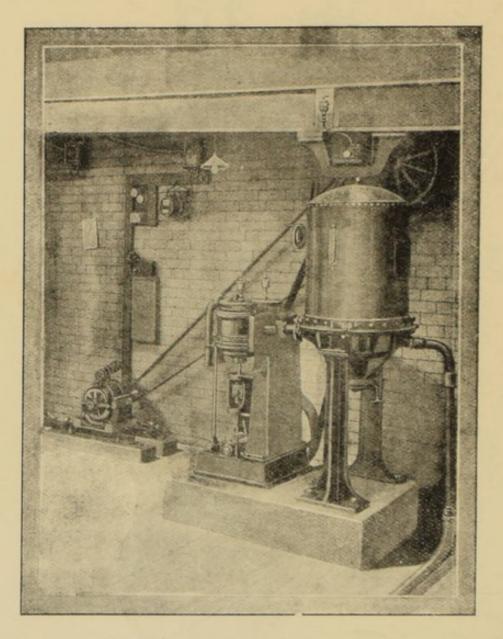
Description.—One Feed Water Filter consisting of a closed, vertical, cylindrical chamber fitted internally with an open-ended perforated Steel Cylinder, and a perforated central steel gathering tube, both being covered with gauze wire and very finely perforated Muntz metal sheet to prevent the escape of any of the filtering medium.

PRICE.—No. 4 Size Filter, £60, delivered Manchester.

Manufactured by Mather & Platt, Ltd., Salford Iron Works, Manchester. DIVISION C.—CLASS II.—Section 2. Filtering and Softening Water—

#### Water Softening Apparatus. Silver Medal, 1902.

TO MATHER & PLATT.



Description.—Comprising a wrought-iron cistern, 5 ft. diameter × 8 ft. deep, with chemical mixing cistern, agitating apparatus, inlet and outlet valves, &c.

PRICE.-£80, delivered Manchester.

Manufactured by Mather & Platt, Ltd., Salford Iron Works, Manchester. DIVISION C.—CLASS II.—Section 2. Filtering and Softening Water—

continued.

### Automatic Discharge Regulator for Sand Filters for Water Purification.

Bronze Medal, 1902.

To Didelon & Co.

Description.—The Didelon C° regulator is composed of a syphon, of which a branch dips into a tank receiving filtered water, whilst the other branch is in a little recess used for the outlet of the filtered water. This syphon is surmounted by a screw which goes through a nut-fly-wheel fixed to a frame connected to a float which dips freely into the water of the tank. In order to reduce the volume of the float, the syphon and its frame are partially balanced by a counter-weight. The outlet water pipe is provided with a receptacle to prevent the fetching off and to produce a water level limiting exactly the height of fall of the syphon. Furthermore the syphon and float are balanced exactly, so that their centre of gavity passes through the vertical axle of suspension, this doing away with any roller; thus no friction can interfere with the working.

Manufactured by Didelon & Co,, Paris.

Apparatus for Water Analysis.

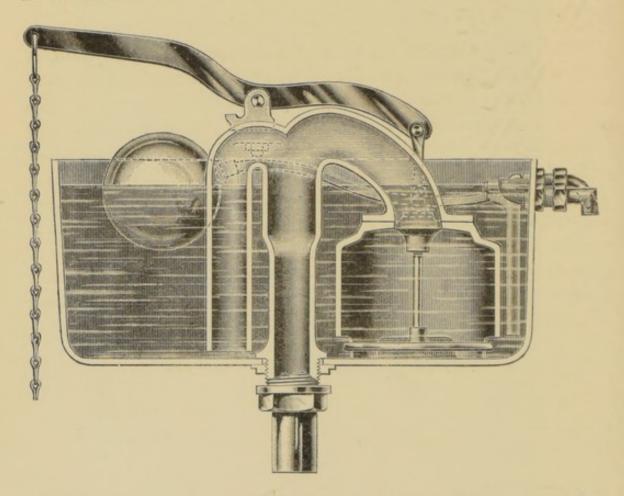
Bronze Medal, 1901.

To Townson and Mercer.

DIVISION C.—CLASS II.—Section 3. Water Waste Preventers.

# Paisley Water-Waste Preventer. Bronze Medal, 1903.

To Doulton & Co.



DESCRIPTION.—When the chain is pulled the piston drives water up into the large dome, and so over the bend into the down pipe, thus starting the syphonic action by which the cistern is emptied.

Manufactured by Doulton & Co., Ltd., Lambeth, S.E.

DIVISION C.—CLASS II.—Section 3. Waste Water Preventers—continued.

Equilibrium and Compensating Ball, Bib, and Meter Taps.

Silver Medals, 1903 and 1904.

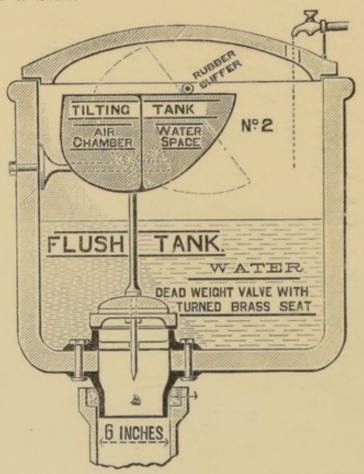
TO THE BRADLEY STAR TAP CO.

Manufactured by The Bradley Star Tap Co., Sheffield.

DIVISION C.—CLASS II.—Section 4. Flushing and Watering.

# Flushing Tank and Tipper. Bronze Medal, 1902.

To J. DUCKETT & SONS.



Description.—This automatic flushing tank with fittings is made for flushing ranges of closets, drains or sewers; it consists of a tank of earthenware, or of galvanized iron, and is fitted with a copper tipper, the tilting of which opens a valve in the bottom of the tank. The feed water runs into the flushing tank and overflows into the front part of the copper tipper; the back part is an air chamber, which acting as a float causes the tipper to tilt. To prevent the tank closing before it is emptied, a portion of the water in the tipper is retained until the flushing water has left the tank, by which time the water in the tipper has escaped, when the valve closes and regains its former position. The fittings are made of different sizes to suit varying depths and capacities for underground tanks for flushing sewers. They are also purposely made to be built into the walls of underground flushing chambers.

PRICES.—On application.

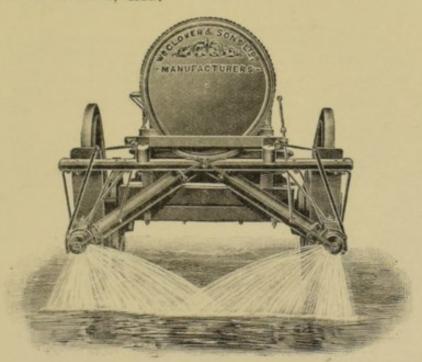
Manufactured by J. Duckett & Sons, Ltd., Burnley.

DIVISION C .- CLASS II .- Section 4. Flushing and Watering.

## Roadway Water Sprinklers.

Silver Medal, 1903.

TO W. GLOVER & SONS, LTD.



DESCRIPTION.—The water falls through the sprinkler by gravitation, and the sprinklers on each side can be used independently. They can be rotated so as to spread the water. By this means the width of spread may be varied for 2 ft. to 22 ft.

Sizes.-400 gallon capacity.

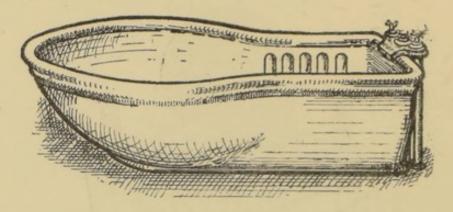
PRICES,-£50. Extra for Brake, £2 10s.

Manufactured by W. GLOVER & SONS, LTD., Warwick.

### Imperial Registered Bath.

Bronze Medal, 1903.

To Joseph Cliff & Sons.



Description.—The "Grecian" Patent and Registered Bath, in white enamelled Fireclay inside and outside, with gold band; the foot end is restricted in width and provided with adjustable Foot Board, thus making one Bath equally comfortable to children or adults of varying sizes; additional width is given the Bather just where the arms occur, and this allows a Shower to be placed at this position; greater freedom results to Bather or Patient.

Sizes.—On application.

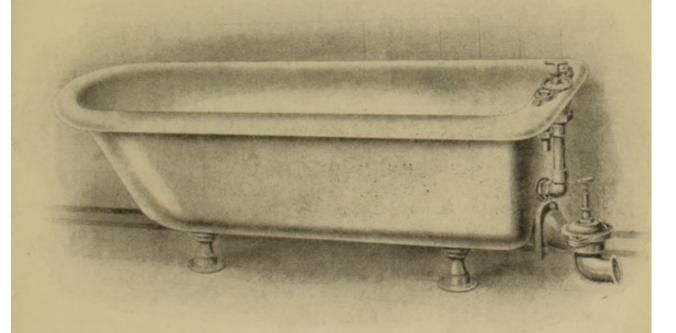
PRICES.—On application.

Manufactured by Joseph Cliff & Sons (Branch of the Leeds Fireclay Co.), Leeds.

Cast-iron Porcelain-enamelled Bath with quick accessible waste.

Silver Medal, 1902.

To Shanks & Co. Ltd.



DESCRIPTION.—This Bath has roll edges, and is fitted with hot and cold taps; quick accessible waste and overflow combined, with shear fixed to bath.

Manufactured by Shanks & Co., Ltd., Tubal Works, Barrhead.

### "Priory" Aluminium Bath.

Bronze Medal, 1903.

To FREEMAN HINES, LTD.

### White Porcelain-enamelled Fireclay Bath.

Bronze Medal, 1902.

To George Howson & Sons, Ltd.

DESCRIPTION.—This Bath is made of white porcelain enamelled fireclay, with rolled rim and taper sided.

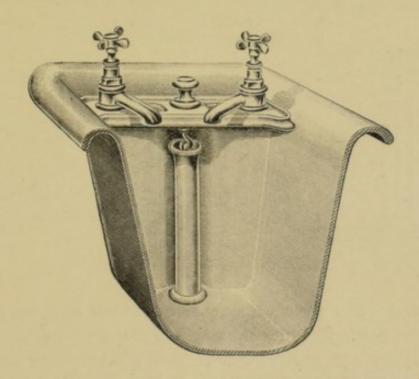
Sizes .- 5 ft., 5 ft. 6 in., and 6 ft.

Manufactured by G. Howson & Sons, Ltd., Hanley, Staffs.

Lift-out Bath Waste.

Bronze Medal, 1904.

To W. B. Morrison & Sons.

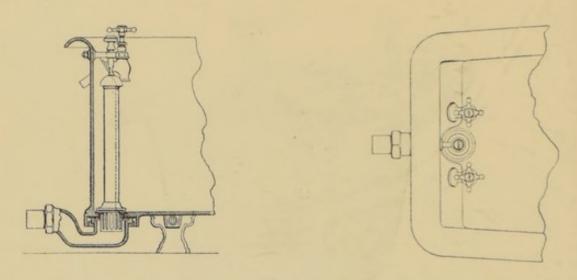


DESCRIPTION.—The plunger for waste being exposed and fitted with detachable hook, the plunger can be removed and thoroughly cleansed inside.

Manufactured by W. B. Morrison & Sons, 117, N. Regent Street, Glasgow.

# Lift-out Bath Waste. Bronze Medal, 1904.

To SHANKS & Co., LTD.



DESCRIPTION.—The waste has a cap over the waste tube, and thus forms. a siphonic overflow. The tube working in a recess formed in end of bath, is secured by an arm projecting from bath, which engages an upwardly extended rod. This rod is free to move in the arm, and a lift and turn of waste knob allows water to escape, while a further turn enables the entire waste tube to be taken away.

PRICE.-£9 10s.

Manufactured by Shanks & Co., Ltd., Tubal Works, Barrhead.

Lift-out Bath Waste.

Bronze Medal, 1904.

To Doulton & Co., Ltd.

DESCRIPTION.—Both the combined overflow and waste are removable. The waste can be removed by merely unhooking it from the pull-up spindle. The waste is 2 in. in diameter, this allows the contents of bath to discharge quickly. The recess at end of bath is sufficiently deep to keep the standing waste clear of the bather.

Manufactured by Doulton & Co., Ltd.

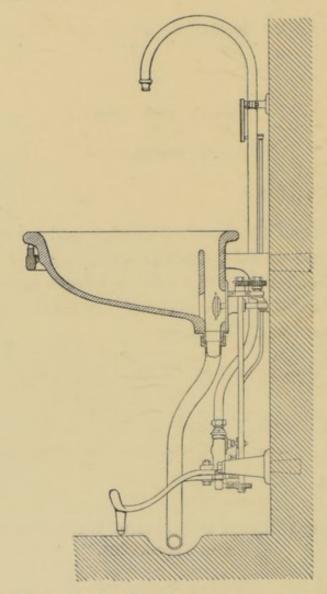
Non-concussive Duplex Supply and Waste Valve for Baths and Lavatories.

Bronze Medal, 1901.

To G. JENNINGS, LTD., Lambeth.

Hospital Lavatory. Bronze Medal, 1902.

To SHANKS & Co., LTD.



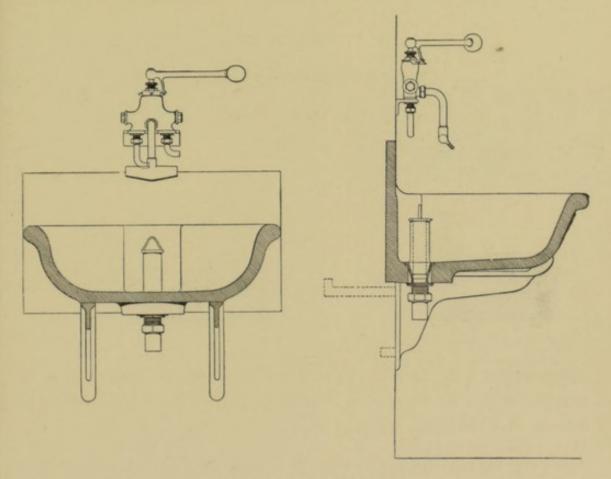
Description.—The hot and cold valves are actuated by one pedal, which can be pushed down to different positions to obtain cold, tepid, or hot water, and by being pushed to one side can be fixed at any point. There is an indicator placed over the basin, showing the movement of the lever. The overflow is actuated by a similar pedal, and is arranged so as to be accessible.

Sizes.—Inside,  $24\frac{1}{4}$ " ×  $15\frac{1}{2}$ "; overall, 28" × 21"; projection from wall, 24". Price.—£13 15s.

Manufactured by Shanks & Co., Ltd., Tubal Works and Victoria Pottery, Barrhead.

# Wave-supply Lavatory Fittings. Bronze Medal, 1904.

To Shanks & Co., Ltd.



Description.—Special Lavatory for surgical use, comprising basin made of white glazed "Victorian" fireclay with special flat back to sit into wall, and supported on white porcelain enamelled cantilever brackets; basin fitted with open or exposed type, standing waste and overflow. The supply fittings are of Shanks' combination type, comprising non-concussive hot and cold valves mounted in one mixing box, and controlled by one lever arm worked by the forearm or elbow, and so arranged that cold water only may be drawn first, then tepid (or, if desired, hot water). The supply is over the basin in the form of a wave.

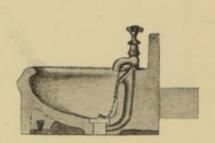
Sizes.—Basin: overall 2 ft. 5 in.  $\times$  1 ft. 11 in. Inside  $24\frac{1}{2}$  in.  $\times$   $16\frac{1}{2}$  in. PRICE.—£12.

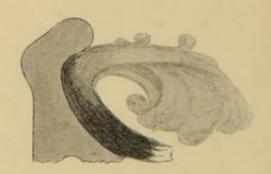
Manufactured by Shanks & Co., Tubal Works, Barrhead.

#### Bead Rim Lavatory Basin.

Bronze Medal, 1902.

TO WILLIAM E. FARRER.





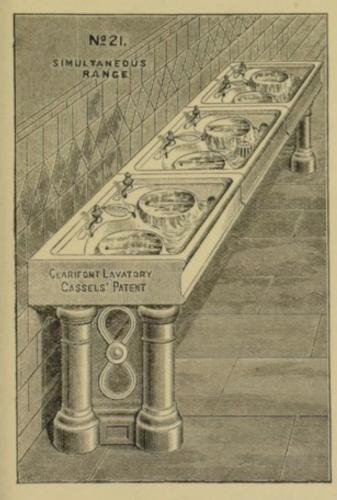
Description.—By forming this patent rim on the upper edges of lavatories, as per accompanying illustrations, the danger of splashing of the water over the front, upon the user, is prevented.

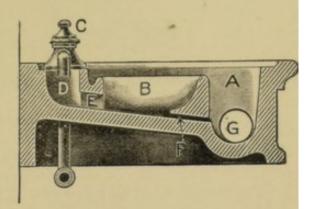
SIZES AND PRICES.—No. 1,  $27 \times 19$  in., Basin  $20 \times 14$  in., White, 35s. 6d., Printed 39s. 6d. each; No. 5,  $20 \times 16$  in., Basin  $14 \times 12$  in., White 23s. 6d., Printed 27s. 6d If without skirtings prices are: No. 1, White 31s. 6d., Printed 35s. 6d. each; No. 5 White 20s. 6d., Printed 23s.

Manufactured by W. E. FARRER, 36, Cannon Street, Birmingham.

# Range of Clarifont Lavatory Basins. Silver Medal, 1904.

TO WILLIAM CASSELS.





- A Overflow or Waste Trough.
- B Wash Basin.
- C Open Nozzle.
- D Receiving Chamber.
- E Passage from D to B.
- F Draining Duct.
- G Waste Channel.
- H Supply Pipe with Stopcock.

DESCRIPTION.—This Lavatory Range is designed for use wherever many persons have to wash in a short space of time. At washing time an attendant turns on the water by one stopcock for the whole range, leaving it running while the washing lasts. It fills the basins and overflows all round the rims, and the basins being small and round the water in them is quickly changed and kept clean by the continuous inflow and overflow. Any or all of the basins can be made available for separate use by substituting ordinary taps for the open nozzles.

Sizes.—13 ins., 15 ins., and 24 ins., from centre to centre of basins.

PRICES.—For Cold ... 45s. 49s. 58s.) per basin in white glazed fireclay,
Hot & cold ... 49s. 53s. 62s.) with iron supports & brass fittings.
Extra per Range for Stopcock, 8s.

Manufactured by WM. CASSELS, Park Place, Stirling

Spray Lavatory with Self-regulating Valve.

Bronze Medal, 1902.

To Doulton & Co., Ltd.

DESCRIPTION.—The lavatory is designed for school use, and arranged so that each basin is separate, the user washes under the spray, no water being retained in the bowl.

PRICES.-£13 6s.

Manufactured by DOULTON & Co., LTD., Lambeth, E.C.

Gun-metal Mixing Valve for Hot and Cold Water.

Bronze Medal, 1903.

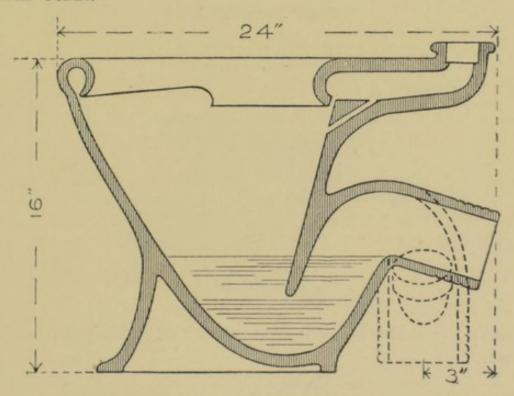
To Doulton & Co.

DIVISION C.-CLASS II.-Section 7. Water Closets.

The "Carlyle" Wash-down Pedestal Closet.

Bronze Medal, 1902.

To John Jones.



DESCRIPTION.—This closet is made of hard non-absorbent vitrified stoneware, with a vertical or horizontal flushing inlet.

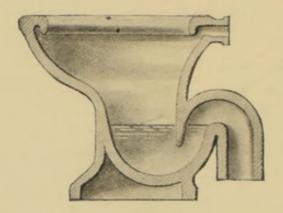
PRICES.-24s. 6d. and 27s.

Manufactured by John Jones, Carlyle Works, Chelsea, S.W.

The "Hassall" W.C.

Bronze Medal, 1902.

To C. W. OUTRAM & Co.



DESCRIPTION.—This Closet is arranged to flush with a gallon and a half of water.

PRICES.—Closet only, cane and white, 22s.; white, 25s.; printed, 31s.; decorated, 37s. each.

Manufactured by Outram & Co., Woodville, Burton-on-Trent.

Isolated Siphonic Closets.
Silver Medal, 1903.

Isolated Siphonic Closets, with recessed basins.

Bronze Medal, 1904.

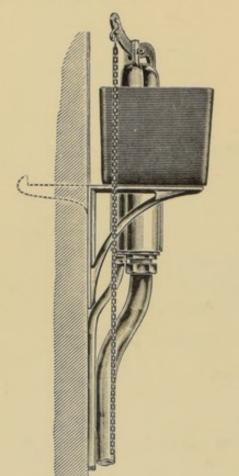
To J. DUCKETT & SON.

(See page 187 of principal list.)

### Siphonic Closet.

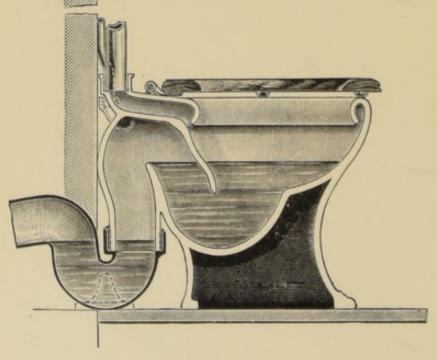
Bronze Medals, 1903 and 1904.

To Doulton & Co.



DESCRIPTION.—The syphonic action is started partly by the flush water from the basin overflowing into the trap, and partly by the separate matter flush pipe which discharges a flush of water directly into the lower trap beyond the basin, driving the air from the upper part through the trap water.

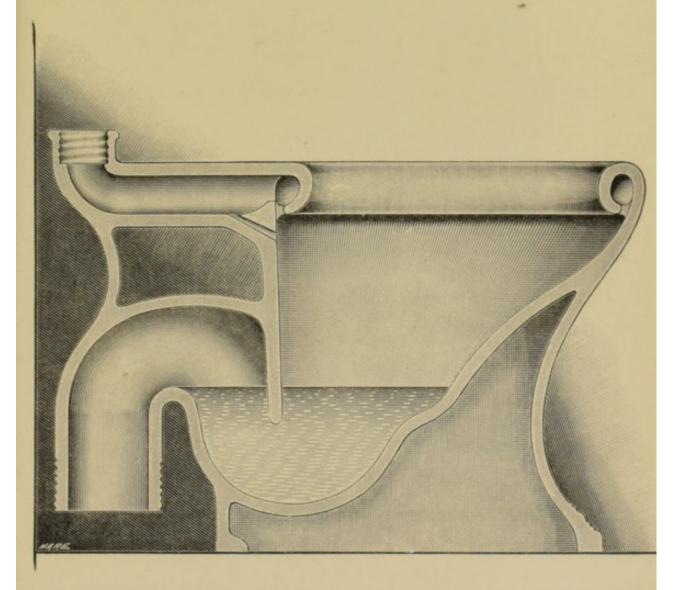
Manufactured by Doulton & Co., Ltd., Lambeth, S.E.



Waverley Closet.

Bronze Medal, 1903.

To Doulton & Co.



DESCRIPTION.—The area of the pan is increased just about the level at which the water is held up by the trap so as to give a larger water area.

Manufactured by Doulton & Co., Ltd., Lambeth, S.E.

## Improved Compact Closet.

Bronze Medal, 1904.

To Doulton & Co., Ltd.

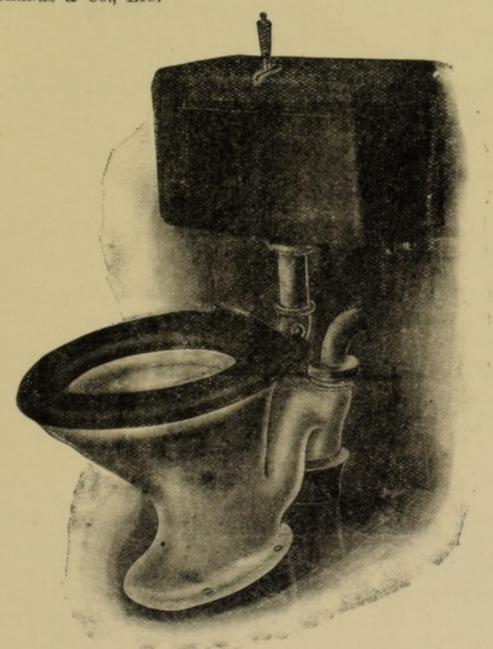
DESCRIPTION.—In this pattern the flush pipe is made with a large area to compensate the low head.

PRICES.-From £3 5s.

Manufactured by DOULTON & Co., LTD., Lambeth.

Modern Combination Closet. Bronze Medal, 1904.

To SHANKS & Co., LTD.



Description.—This Closet in white glazed "Victorian" fireclay, with S trap and vent; fitted with polished mahogany double-thickness seat hinged direct to extension of closet, with nickel-plated fixings; 3-gallon copper-lined mahogany cistern, arranged for low head, with float valve fittings.

PRICE. -£6 17s. 6d.

Manufactured by Shanks & Co., Ltd., Tubal Works, Barrhead, N.B.

#### DIVISION C.-CLASS II.-Section 8. Urinals.

# Westwood Porcelain-enamelled Fireclay Urinal Ranges Bronze Medal, 1902.

To George Howson & Sons, Ltd.

Description.—Made of fireclay, white porcelain enamelled, with fireclay automatic cistern and copper service pipes.

Sizes.—No. 5 "Westwood" Porcelain Enamelled Fire-clay Urinal Range, with Automatic Fire-clay Cistern and Copper Sparge Pipes.

From Floor line to top of Divisions	Medium size. 4 ft. 7 in.	
" Cistern	 7 ft. 0 in.	 7 ft. 6 in.
" foundation	 7 in.	 7 in.
Length of Range for three persons	 6 ft. 2 in.	 7 ft. 3 in.
Centres ,, ,,	 2 ft. 0 in.	 2 ft. 4 in.
Extreme projection from wall	 1 ft. 8 in.	 1 ft. 8 in.

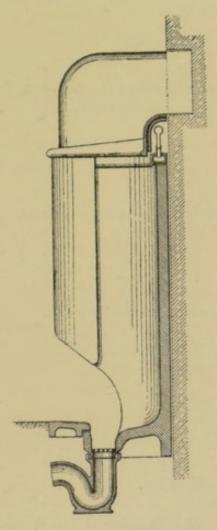
Manufactured by Geo. Howson & Sons, Ltd., Sanitary Potters, Hanley.

DIVISION C .- CLASS II .- Section 8. Urinals-continued.

Improved Urinals, with accessible Waste.

Bronze Medals, 1904.

To J. DUCKETT & SONS, LTD.



Description.—These urinals are made in salt-glazed amber, and white-glazed ware; each stall is fitted with a flushing rim, which distributes the flush evenly over the whole of the urinal back without splashing. The channel is open and freely accessible from end to end.

Size.-2 ft. 2 in. centres, 4 ft. 8 in. high.

PRICES. - On application.

Manufactured by J. Duckett & Sons, Ltd., Burnley.

Isolated Siphonic Latrines.

Bronze Medal, 1902.

To J. DUCKETT & SONS.

(See page 178 of principal list.)

Glazed Stoneware Pipes.

Bronze Medal, 1902.

Glazed Stoneware.

Bronze Medal, 1903.

To J. OAKES & Co.

Description.—These Pipes are made of Stoneware Clay of low porosity and a high power of resistance to thrusting and bursting stresses.

Sizes.—2 in. to 18 in. diameter.

Manufactured by James Oakes & Co., Riddings Colliery Office, Alfreton, Derbyshire.

### Drain Clearing Plunger.

Bronze Medal, 1903.

To A. T. COOPER.

DESCRIPTION.—The apparatus consists of a rubber flange secured to a handle by two metal discs. When placed in a closet basin or drain trap the rubber flange accommodates itself to the shape, and by a quick pumping action obstructions may be withdrawn from the trap or drain pipe. The handle can be either straight or at an incline, or lengthened to suit the purpose for which it is used.

PRICES .- 7s. 6d. to £2 2s.

Manufactured by A. T. Cooper, 92, Moray Road, London, N.

# Hassall's Improved Safety Pipe Joint. Silver Medal, 1902.

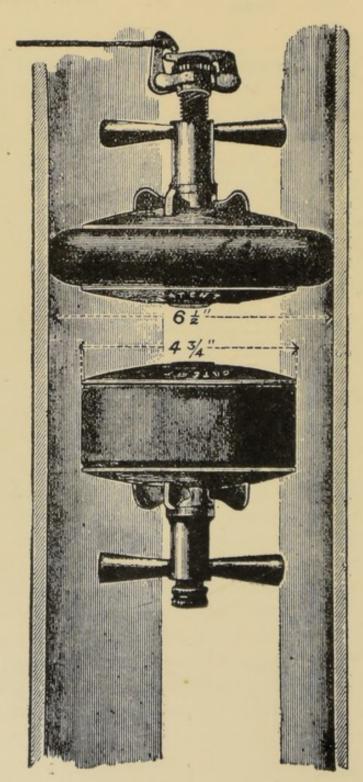
TO VERNON PARKER.

Description.—The pipes are made with a deep socket lined with two rings of bitumen having a space between. The spigot end of the pipe has two corresponding rings of bitumen shaped as shown in the section. In making the joint a small portion of plastic cement is put round the lower ring in the socket and in the notch in the upper ring of the spigot. When the pipe is pushed into the socket the plastic cement makes a water-tight joint in each bitumen ring, without much risk of the plastic cement getting into the space between the two rings. There are two holes through the sides of the socket, into one of these liquid Portland cement is poured in order to run round a space between the two bitumen rings, and this secures the joint.

Sizes.—All recognised sizes.

"Times" Drain Plug. Bronze Medal, 1903.

To BURN BROS.



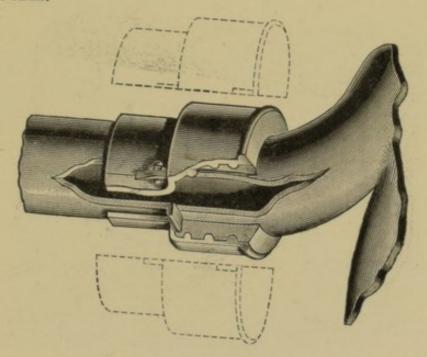
DESCRIPTION.—The stopper consists of two metal plates with a cylindrical rubber ring between; the ring is expanded by screwing the plates together.

Manufactured by Burn Bros., 23 & 24, Charing Cross, Whitehall, S.W., and 3, Blackfriars Road, London, S.E.

# Connection for W.C. Basins to Soil Pipe.

Bronze Medal, 1902.

To John Jones.



DESCRIPTION.—The illustration shows the connection applied to watercloset outlet and lead soil pipe. The lead soil pipe is carried entirely through brass socket. The connection, being in two parts, will allow end of lead soil pipe to be turned over and the socket being placed in correct position. The joint is completed with cement.

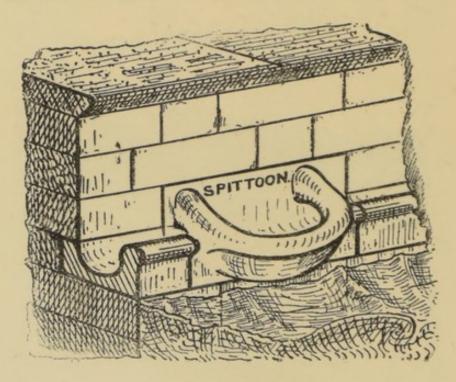
SIZES AND PRICES.—61 in., 5s. 9d.; do., with 4 in. spigot end, 6s.

Manufactured by John Jones, Carlyle Works, Chelsea, S.W.

Hessell-Tiltman Scum Channel for Swimming Baths.

Bronze Medal, 1903.

To Joseph Cliff & Sons.



Description.—The specially-shaped channel is placed just above the water line, at one end or ends and sides of bath. Spittoons may also be used in conjunction with such channel. The movements of bathers cause the scum to pass over the rolled edge of channel and to pass away through suitable outlets; the rolled edge affords an excellent handrail.

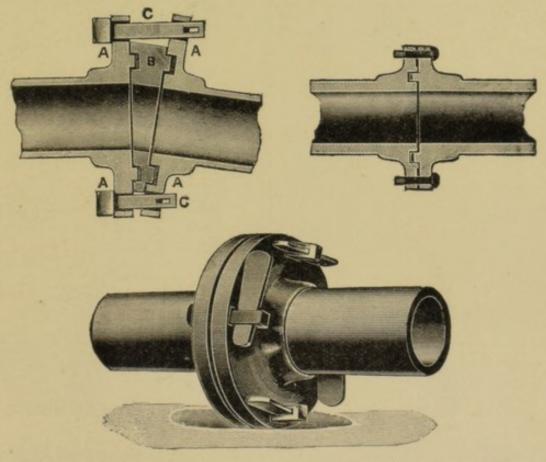
SIZES.—Usually 18" lengths, and to order.

PRICES.—On application.

Manufactured by Joseph Cliff & Sons (Branch of the Leeds Fireclay Co.), Leeds.

# Bevelled Ring for Diverting the Course of Pipes. Bronze Medal, 1901.

TO THOMAS FEATHER.

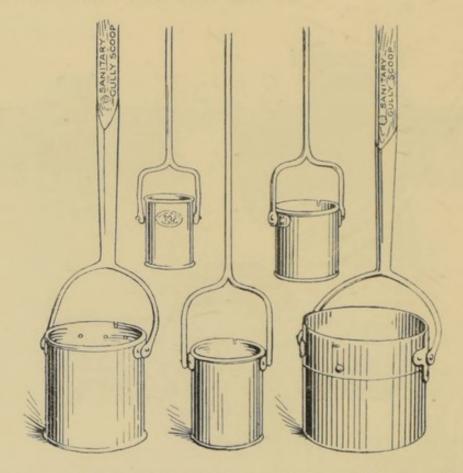


Description.—This pipe forms a triple joint, or in other words, each half of the pipe has three separate surfaces for contact, and special rings which are made and supplied by the patentee, and which are cheap and inexpensive will answer for the making of these joints as well as the best and most expensive material. The bolts, which are made of steel, may be either screw or cotter bolts, which are specially treated to prevent rust, and can be increased in number for larger pipes.

Gully Scoops.

Bronze Medal, 1903.

TO PATENT SANITARY GULLY SCOOP CO.



DESCRIPTION.—A vessel made of Stamped Steel or Galvanized Iron, with two Pivots near the top, to which is attached a forked handle (any required length) which, when lowered into the Gully, comes in contact with the water, turns on its side and fills with the sediment; on raising it the vessel comes up in an upright position, and can be emptied without touching the vessel with the hands.

Sizes and Prices.—Scoop capable of holding one pint, 4s.; capable of holding one gallon, 12s. 6d.

Manufactured by The Patent Sanitary Gully Scoop Co., Westfield Road, Hemsworth, near Wakefield.

#### Blue Brick Ware Drain Pipes.

Bronze Medal, 1902.

To VERNON PARKER.

Ford's Stable Channel.

Bronze Medal, 1902.

To WM. HARRIMAN & Co., LTD.

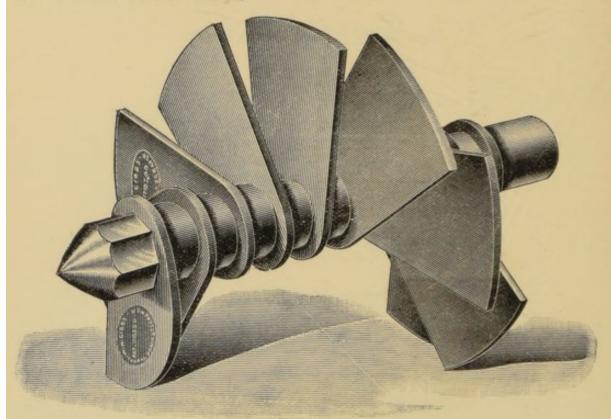
DESCRIPTION.—This Channel is applicable to the drainage of either stalls, loose boxes, wash boxes, &c., and can be arranged to fall in any direction, irrespective of the slope of surface paving. Made in cast-iron, coated with Dr. Angus Smith's solution as to side frames and covers, and with glazed stoneware channel bottom.

Sizes.—Standard length, 2 ft.  $4\frac{3}{4}$  in.; **T** pieces, 1 ft.  $5\frac{1}{2}$  in. long. Price.—3s. 6d. per foot run.

Manufactured by Tyneside Foundry Co., Low Elswick, Newcastle-on-Tyne.

Spiral Drain Scraper. Bronze Medal, 1902.

TO WILLIAM HENRY GIBES.



Description.—A tool for scraping sewers, tubes, or drains, or for removing obstructions therein; consisting of the arrangement and combination with a central stem on which are fitted and spaced apart a series of rigid scraping blades. The rear end of scraper is provided with a brass union universally threaded internally to receive drain rods; this also forms an abutment against which the whole series of spirally-arranged blades and spacing washers are forced and locked in rigid position by the screw cap.

Sizes and Prices.—No.  $1-2\frac{1}{2}$  in. scraper, 1 lb. 4 oz., for use in a 4 in. drain, 10s.; No.  $2-3\frac{1}{2}$  in. scraper, 1 lb. 10 oz., for use in a 6 in. drain, 11s.; No.  $3-5\frac{1}{2}$  in. scraper, 2lb.  $8\frac{1}{2}$  oz., for use in an 8 in. drain, 12s.; or if set of three scrapers are taken £1 11s.

Manufactured by Gibbs Bros., 126, Medway Road, New Brompton, Kent.

"Hurst" Pipe Joint. Bronze Medal, 1902.

To Fletcher, Russell & Co.

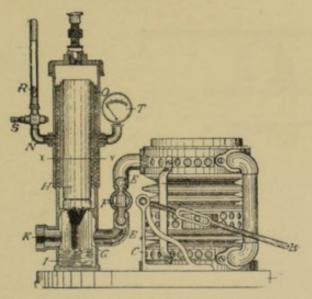
Description.—Connecting every class of lead, block tin, light copper and soft metal pipes; also for connections to gun metal, brass and iron fittings; also for rubber and flexible tubings for gas fires, gas cookers, &c. Sizes and Prices—Different connections from 9d. to 9s.

Manufactured by Fletcher, Russell & Co., Ltd.

Drain Tester.

Bronze Medal, 1902.

TO RICHARD RAVENOR.



Description.—The machine is for testing drains and soil pipes by means of smoke and air pressure, and has for its object the arrangement and construction of an apparatus with which smoke rockets can be used in drains of considerable length without danger of explosion of unconsumed gases emitted from the previous rocket. At the bottom of the smoke chamber, Fig. G, is a small receptacle, Fig. I, for containing water, which will catch and extinguish any sparks or incandescent material that may be emitted by the rocket during combustion; fresh rockets may be inserted by simply removing the brass cap, Fig. J, at the top of the cylinder.

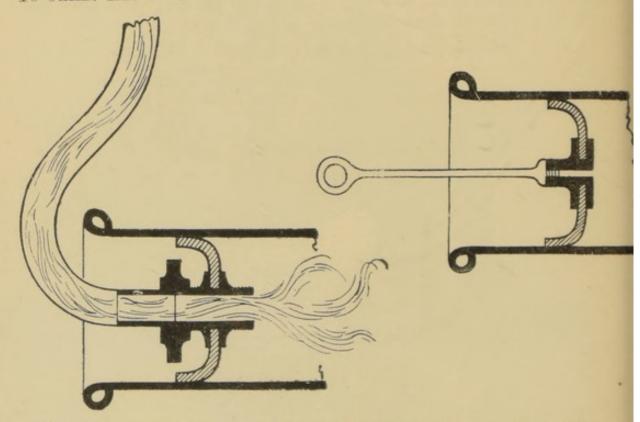
PRICE.-£5 5s.

Manufactured by RICHARD RAVENOR, Newbury.

### Plugs, Air-testing Gauges, and Fittings.

Bronze Medal, 1903.

TO JAMES REEKIE & Sons.



Description.—The Plug consists of a thick disc of india-rubber with a metal handle, or fitting in the middle. The disc is made larger than the pipe in which it is to be used, so that when it is pushed in, the edge turns over and gives it a hold upon the pipe, the handle can be unscrewed leaving a hole in the centre through which water or smoke can be applied.

Sizes.—2 in.,  $2\frac{1}{2}$  in., 3 in.,  $3\frac{1}{2}$  in., 4 in., 5 in., 6 in., or any size down to  $\frac{3}{4}$  in.

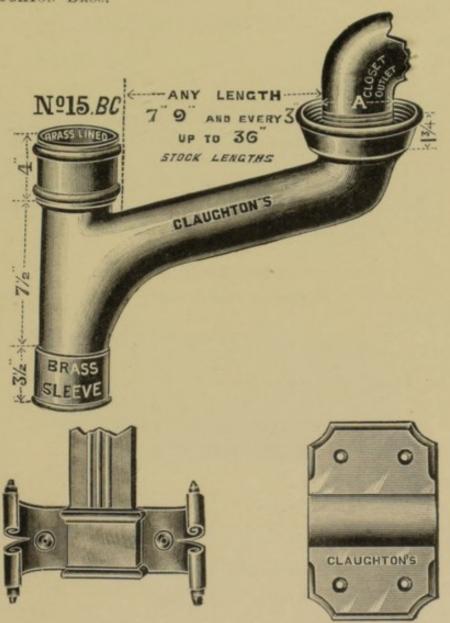
PRICES.—Set of two 2 in. plugs, one 3 in., two  $3\frac{1}{2}$ , two 4 in., one 5 in., one 6 in., one nozzle, 6 ft. rubber tube, one pressure gauge—£3.

IN PARTS.—2 in. plugs, 2s. 8d.;  $2\frac{1}{2}$  in., 2s. 10d.; 3 in., 3s. 3d.;  $3\frac{1}{2}$  in., 3s. 7d.; 4 in., 4s.; 5 in., 6s. 6d.; 6 in., 7s. 6d.; gauges, 9s. 3d.

Manufactured by J. S. Reekie & Sons.

Cast and Wrought Lead Sanitary Pipe Fittings.
Bronze Medal, 1903.

To CLAUGHTON BROS.



DESCRIPTION.—Sanitary pipe fittings, comprising cast-lead soil-pipe junctions or branch pieces, soil-pipe socket, patent iron-lined closet and soil-pipe connecting socket, soil-pipe terminal, double banded pipe clip for fixing soil-pipe, lead foot trap with lead sockets and base.

Sizes.—Made suitable for  $3\frac{1}{2}$  in., 4 in., and  $4\frac{1}{2}$  in. soil-pipe.

Manufactured by Claughton Bros., Ltd., Bramley, Leeds.

Cast-iron Drain Pipes and Fittings.
Silver Medal, 1903.

To BURN BROS.

(See page 188 of principal list.)

Automatic Air-tight Manhole Cover. Silver Medal, 1902.

To John Jones.

(See page 208 of principal list.)

Improved Ball Drain Stoppers.
Bronze Medal, 1902.

To BURN BROS.

(See page 217 of principal list.)

Locking Drain Rod Joint. Bronze Medal, 1904.

To Messrs. Burn Bros.

Glass-glazed Iron Pipes.

Bronze Medal, 1904.

To DAVID KING & SONS.

DESCRIPTION.—These pipes are glass enamelled inside, and coated outside with Dr. Angus Smith's solution.

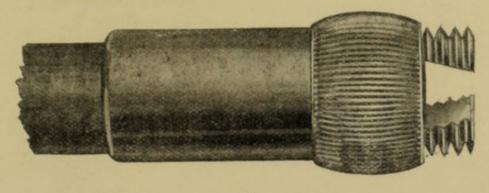
Size.—From 2 in. to 6 in. diameter, in 6 ft. lengths.

Manufactured by DAVID KING & Sons, Keppoch Iron Works, Glasgow.

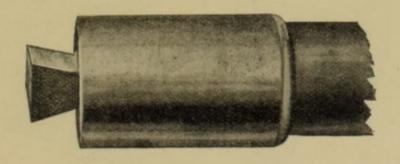
Drain Rod Joint.

Bronze Medal, 1904.

TO THE KILLGERM CO., LTD.



A



B

DESCRIPTION.—This joint consists of a screwed brass end (A), in which a dovetail slot is cut. The opposite part of the coupling (B) is made with a tenon piece that fits into this slot, and the coupling on A is screwed up, which effectually locks the joint. The strain and pull in this joint are taken by a solid brass tenon.

PRICE.—£5 15s. per 100 ft. set, including 6 ins. Whalebone Brush-head, 1 Double Spiral Screw, 1 Brass Clearing Wheel, and India-rubber Plunger.

Manufactured by The Killgerm Co., Ltd., Cleckheaton.

DIVISION C.—CLASS II.—Section 10. Traps and Gullies.

Crosta Surface Water Gully with complete Double Trap.

Bronze Medal, 1902.

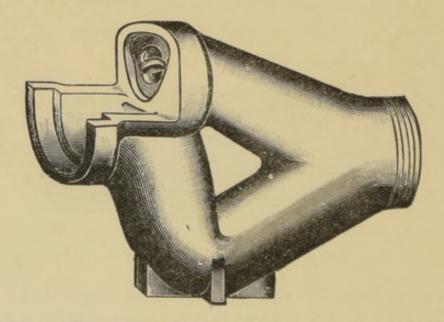
To Ames Crosta Sanitary Engineering Co., Ltd.

(See page 232 of principal list.)

"Newcliff" Intercepting Trap.

Bronze Medal, 1903.

TO JOSEPH CLIFF & SONS.



Description.—The mouth of Trap is arranged for use with either semi-circular, or **U** shaped channels, and has shoulders for laying level thereon when fixing Trap. Sides of Trap are parallel, but well of Trap is reduced in area to ensure proper cleansing; a locking stopper is attached to Rodding Arm.

Sizes.—4 in. 4 in.  $\times$  6 in. 6 in. 9 in.

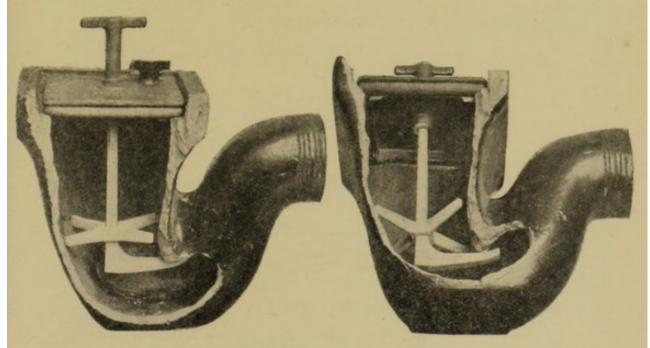
PRICES.—On application.

Manufactured by Joseph Cliff & Sons, Branch of the Leeds Fireclay Co., Leeds. DIVISION C.—CLASS II.—Section 10. Traps and Gullies—continued.

Square Gully Plug.

Bronze Medal, 1903.

To Burn Bros.



DESCRIPTION.—The projection part at bottom of bolt grips under the throat of trap and the cross part on the bolt centres and at the same time fixes the bolt, preventing it from turning round. The plate is dropped over the bolt, and the T handle screws the plate and rubber ring down on rebate of gully and you have an absolute plug. The water or smoke test can be applied through this plug.

PRICES.-14s. and 15s.

Manufactured by Burn Bros., 23 & 24, Charing Cross, Whitehall, S.W., and 3, Blackfriars Road, London, S.E.

DIVISION C.—CLASS II.—Section 10. Trap and Gullies—continued.

## Surface Water Gullies.

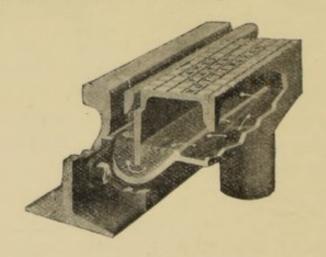
Bronze Medal, 1903.

To Ames Crosta Sanitary Engineering Co.

(See page 232 of principal list.)

## Trapped Drain Box for Tramway Rails. Bronze Medal, 1903.

To Ames Crosta Sanitary Engineering Co.



DIVISION C .- CLASS II .- Section 10. Traps and Gullies-continued.

Gully and Trap Dredger.

Bronze Medals, 1902 and 1903.

To GEORGE BARBER WILSON.

Description.—The bowl at the bottom of the handle can be placed at any angle, so as to form a shovel or a ladle. By pushing at the knob or handle you form a complete shovel. By pulling at the handle you form a complete ladle.

Sizes.— $3\frac{1}{2}$  in. and  $4\frac{1}{2}$  in. Bowls, 3 ft. 6 in. Handle.  $6\frac{1}{2}$  in. Bowl, 4 ft. 3 in. Handle.

PRICES.-4s. 6d. and 7s. 6d., carriage paid.

Manufactured by J. Searby & Co., Rotherham, Yorks.

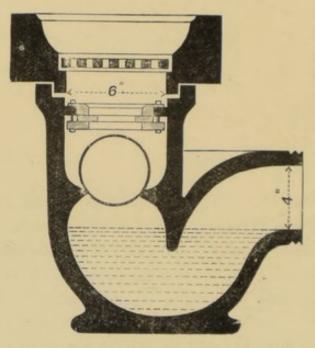


DIVISION C.—CLASS II.—Section 10. Traps and Gullies—continued.

Anti-Flooding Gully.

Bronze Medal, 1904.

To J. DUCKETT & SONS, LTD.



DESCRIPTION.—This gully is for preventing the flooding of basements, etc., which are connected by an ordinary drain to the main sewer. A rise of water from the main sewer is prevented from entering the basement or area by the floating ball which rises with the back flow, and coming in contact with a well-secured indiarubber ring, makes a water-tight joint, and as the water in the drain recedes, the floating ball follows until it rests upon projections formed inside the gully, allowing a free flow of the drainage water from basement.

Sizes.—6 in.  $\times$  4 in. outlet, and 6 in.  $\times$  6 in. outlet.

PRICES.—On application.

Manufactured by J. Duckett & Sons, Ltd., Burnley,

DIVISION C.—CLASS II.—Section 10. Traps and Gullies—continued.

## Gully Channel, 1899 Pattern.

Bronze Medal, 1904.

To J. DUCKETT & SONS, LTD.

Description.—The Gully is made in amber, cane, or white glazed ware, with two hinged sloping grates and easily accessible trap, which can be turned in any direction to suit drain. The Channel and Shield conduct the waste water in its proper course and prevent its overflowing the channel block; the two sloping grates and the suitably constructed trap with small water space offer little resistance to the flow of water, which leaves the trap with considerable force and materially assists in cleansing the house drain.

Sizes.—28 ins.  $\times$  11 ins.  $\times$  4½ ins.

PRICES.—On application.

Manufactured by J. Duckett & Sons, Ltd., Burnley.

#### DIVISION C .- CLASS II .- Section 11. Dry Closets.

Self-acting Earth Closet. Silver Medals, 1902, 1903, and 1904.

To BRITISH SANITARY Co.

(See page 239 of principal list.)

## Pedestal Earth Closets. Bronze Medal, 1903.

To Moule's Patent Earth Closet Co.



Description.—This Closet is fitted with the pull-out action apparatus. The plug is of brass, mounted in a sunk brass dish. The rim beneath the seat is of enamelled iron. The seat and casings of the hopper are made in solid teak sufficiently varnished, thus rendering the same absolutely impervious. The Closet is also made with a pull-up handle and with a seat action.

Sizes.—2 ft. 10 in. high; 1 ft. 7 in. side to side; 2 ft. 5 in. back to front.

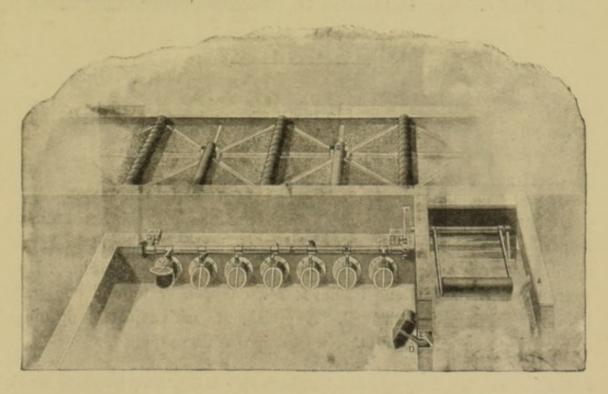
PRICES.-From £4 to £5 17s. 6d.

Manufactured by Moule's Patent Earth Closet Co., 5a, Garrick Street, Covent Garden, London, W.

### DIVISION C.-CLASS II.-Section 12. Sewage Treatment

## Automatic Distributing and Flushing Valves. Bronze Medal, 1902.

TO MATHER & PLATT, LTD.



Description.—Comprising: One Cast-iron Frame Plate carrying three Patent Flap Valves with cams, ratchet wheel, pawls for same, galvanised iron float, filbores with brass bushes, wrought-iron shaft, delta metal pins, indiarubber faces and bolts. One Patent Measuring Valve to control the above consisting of cast-iron seating machined, cast-iron flap for same, indiarubber faces, galvanised iron float, pipe for filling float tank, wall box and bolts.

PRICE.-3 ft. 6 in. Flap Valves with Measuring Valve £60, delivered Manchester.

Manufactured by MATHER & PLATT LTD., Salford Iron Works,
Manchester.'

#### Slop Shutes.

Bronze Medal, 1903.

To J. HIRST & SONS.

DESCRIPTION.—This arrangement consists of a hopper, 15in.  $\times$  12in., to be partly recessed into wall, with an inlet for sink waste pipe at back, and opening to receive slops from exterior of building; also slab, 15in.  $\times$  7in., swan neck bend, and channel 30in.  $\times$   $7\frac{1}{2}$ ., one 5in. grate, and one grate 20in.  $\times$   $7\frac{1}{2}$ in. to fix over channel. A special grate, with adjustable openings or receiving rain water and other waste pipes can be supplied.

Sizes.—3ft. 9in. long and 3ft. 9in. high by 1ft. 3in. deep (front to back).

PRICES.—18s., including Grate with adjustable openings; or 15s. 6d. with plain Grate.

Manufactured by Ingham's Firebrick Co., Dewsbury.

## Adjustable Grates for Gully Channel.

Bronze Medal, 1903.

To J. HIRST & SONS.

DESCRIPTION.—This grate, which is arranged for fixing over channels, has adjustable openings for receiving one, two, or three fall-pipes, any size and section, which openings may be arranged in any part of the grate and when placed in position are secured with an iron key on the underside.

Size.— $20 \times 7\frac{1}{2} \times 1$  in.

PRICE.-5s.

Manufactured by Ingham's Firebrick Co., Dewsbury.

Salt-glazed Manger, with "give-and-take" Fastener.

Bronze Medal, 1902.

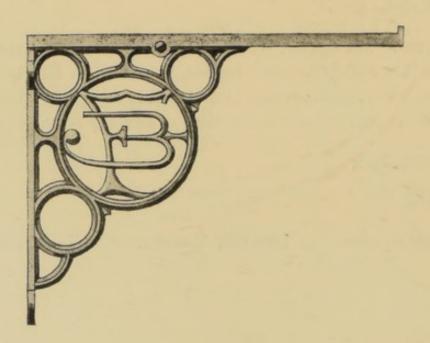
To OATES & GREEN, LTD.

(See page 248 of principal list.)

## Adjustable Bracket.

Bronze Medal, 1902.

TO WILLIAM E. FARRER.



Description.—This is a form of supporting bracket for cisterns, shelves and the like, having a sliding top bar by means of which the bracket may be adjusted to carry all sizes of cisterns, &c., thus obviating the necessity for separate brackets of varying sizes. A small set-screw enables the sliding top to be fixed in any desired position.

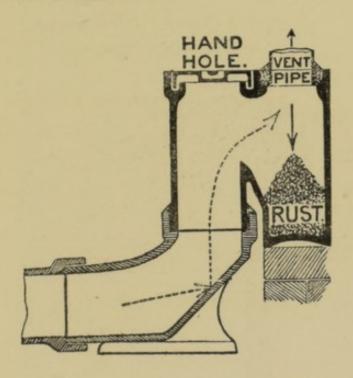
PRICE.—1s. 6d. per pair, in painted cast iron.

Manufactured by W. E. FARRER, 36, Cannon Street, Birmingham.

Rust Pockets.

Bronze Medal, 1902.

To Loco Drainage Apparatus Co.



DESCRIPTION.—The object of the Patent "Loco" Rust Pockets is to prevent the rust which falls within a C. I. ventilating pipe from blocking the bend forming the junction to the drain, thus maintaining permanent and free circulation of air through drains.

Sizes.—4 in. circular top, 6 in. circular top; also 8 in.  $\times$  4 in., 9 in.  $\times$  6 in., 6 in.  $\times$  4 in., 4 in.  $\times$  3 in., with rectangular tops.

PRICES.—From 5s. to 7s. 6d. each.

Manufactured by The Loco Drainage Apparatus Co., Ltd., 31, King Street, Manchester.

Baker's Coin-receiving Lock.

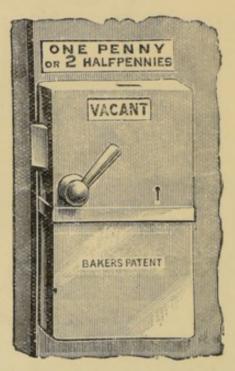
Bronze Medal, 1902.

TO THE SANITARY APPLIANCES SYNDICATE.

Improved Coin-receiving Lock.

Bronze Medal, 1904.

To W. R. BAKER.



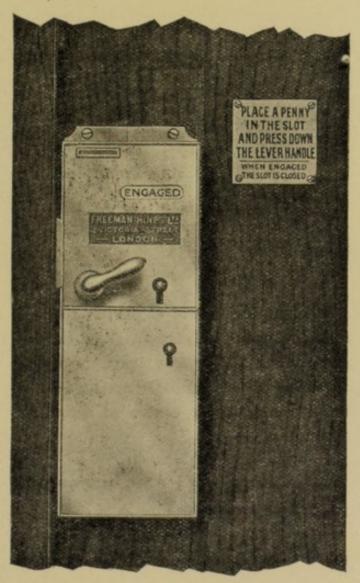
Description.—The lock can be opened by one penny or two half-pennies, but it could be made to work with one half-penny, two or three pence, or any other sum, and so altered as to be fitted for the doors of telephone call rooms, lavatories, etc. After the coin has been placed in the slot, and the handle turned, the indicator is changed to "Engaged," the slot closed, and the outside handle becomes fixed when the door is shut. Another penny cannot be inserted until the visitor opens the door by turning the inside handle, which also changes the outside indicator to "Vacant," and puts the inside one to "Unbolted."

Manufactured by W. R. BAKER.

Brown's Penny-in-the-slot Lock for Water Closets.

Bronze Medal, 1903.

To FREEMAN HINES, LTD.



Description.—Access to the closet is attained by the insertion of a penny into the slot, and then the pressing of the lever handle. The bolting of the door on the inside indicates engaged outside, and closes the coin slot. The withdrawal of the bolt indicates vacant, and the coin slot is again open. The attendant may at any time gain admission by use of the master key. The coin chamber is fitted with the best 4-lever lock, the key of which is retained by the appointed collector.

PRICE.-56s. complete.

Manufactured by FREEMAN HINES, LTD., 2, Victoria Street, S.W.

# Crystal Drinking Fountain. Bronze Medal, 1903.

TO HOLROYD & Co.

Description.—A slight pressure of the hands upon the ring opens the supply valve, when the water bubbles up from the nozzle, which is of nickel-plated brass. When the pressure upon the ring is withdrawn the valve closes. By means of the regulator operated by a detachable key) the outflow from the nozzle may be controlled according to the strength and volume of the supply.

Size.—Height, 2 ft. 6 in.; diameter of bowl, 9 in.; diameter of waste pipe, 1½ in. PRICE.—With imperial porcelain bowl and bronzed iron standard \$28.50.

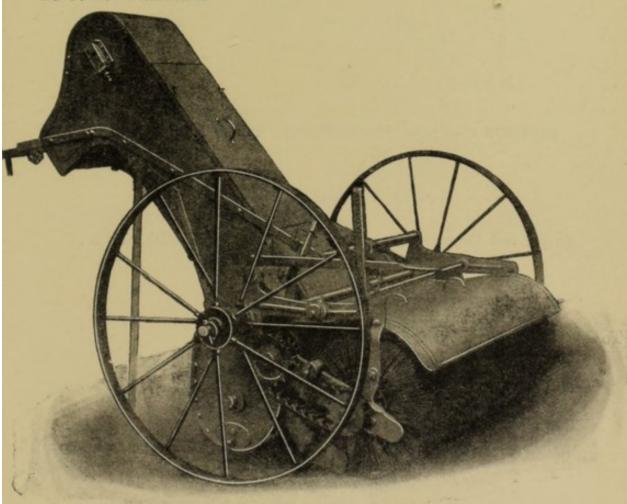
Manufactured by J. L. Mott, Iron Works, 84-90, Beekman St., New York.

Excellence of Porcelain Ware. Bronze Medal, 1903.

TO HOLROYD & Co.

Automatic Complete Road Scavenger. Bronze Medal, 1904.

To J. T. WHITTOME.



Description.—The Scavenger consists of a rotary brush 5 feet wide; as the brush revolves the mud is swept into a receptacle immediately in front of the brush; inside the receptacle is a right and left hand worm or screw, which revolves and conveys the mud from either side to the centre of the machine; from the centre it is carried by buckets attached to an endless chain into a cart provided for the purpose; the brush and elevator are driven by chain gearing. The Scavenger is attached to the cart by a simple pin and cotter, and can easily and quickly be changed from one cart to another.

Size.—5 feet wide.

PRICE.—£60 carriage paid.

Manufactured by Messrs. Brecknell, Munro & Rogers, Engineers, Bristol.

DIVISION C .- CLASS III .- Section 1. Heating Apparatus.

Improved Geyser Apparatus with Flue and Dual Valve.

Bronze Medal, 1902.

To EWART & SON, LTD.

(See page 264 of principal list.)

DIVISION C .- CLASS III .- Section 2. Cooking Apparatus.

Leggott & Marsh's Smoke-consuming Independent Range.

Bronze Medal, 1903.

TO HENRY LEGGOTT & Co.

Metropolitan Cooker. Silver Medal, 1902.

To DAVIS GAS STOVE Co.

(See page 287 of principal list.)

Eagle Fire Grate with Sliding Doors.

Bronze Medal, 1902.

To EAGLE RANGE Co.

Steam Cookers.

Bronze Medals, 1902 and 1903.

To G. J. HUTCHINGS.

(See page 294 of principal list.)

Bakery Fittings.

Bronze Medal, 1902.

TO THOMAS HENRY TONGE.

Description.—These fittings include Troughs, Provers, Bread Boards, Tables, Trolleys, Trucks, Bread and Confectionery Racks, and most of them are mounted on wheels or castors, and are bolted together so that they can be taken to pieces in a few moments.

Sizes.—All Sizes.

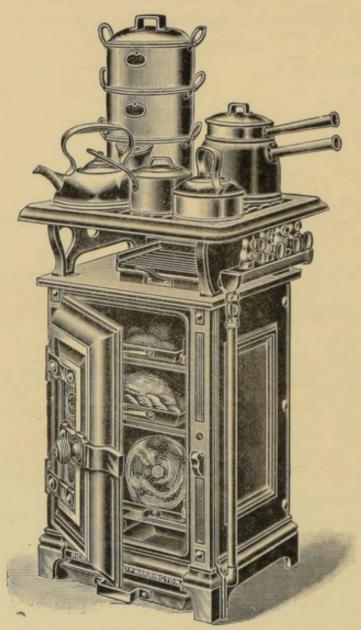
PRICES.—According to Size.

Manufactured by T. H. Tonge, King Street, Irlams o' the Heights, Pendleton, Manchester. DIVISION C .- CLASS III .- Section 2. Cooking Apparatus - continued.

The Richmond Model Gas Cooker.

Bronze Medal, 1903.

To RICHMOND GAS STOVE AND METER Co., LTD.





Burner Section.

Description.—The hot-plate runners and the oven burners are removable for cleaning. The oven is packed with silicate between the enamel plates and the cast-iron exterior. The oven top is fitted with brick fire-tile or cast-iron studded dome-plate, under and over which the waste heat passes and repasses, thus obtaining a top heat for bread and pastry.

This burner is divided into two parts by a cast-iron partition, this allows the top part to be used for boiling only and the bottom half for grilling, or grilling and boiling. These burners are supplied by a double tap.

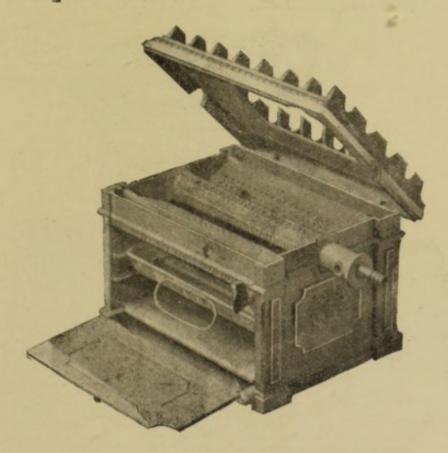
Sizes and Prices.—From back to front,  $10\frac{1}{2}$  in. to 22 in; width,  $10\frac{1}{2}$  in. to 23 in. height,  $21\frac{1}{2}$  in. to 31 in.—£3 7s. to £13 5s.

Manufactured by The Richmond Gas Stove and Meter Co., Ltd., Gas Apparatus Manufacturers, Warrington. DIVISION C.-CLASS III.-Section 2. Cooking Apparatus-continued.

Cottage Griller.

Bronze Medal, 1902

To DAVIS GAS STOVE CO., LTD.



DESCRIPTION.—The Griller has a hinged top and loose burner, detachable deflectors, bottom plate, and sliding door.

Sizes.—11 in. wide, 9 in. deep, 7 in. high; and 14 in. wide,  $10\frac{1}{2}$  in. deep,  $10\frac{1}{2}$  in. high.

PRICES.-5s. 9d. and 8s. 3d.

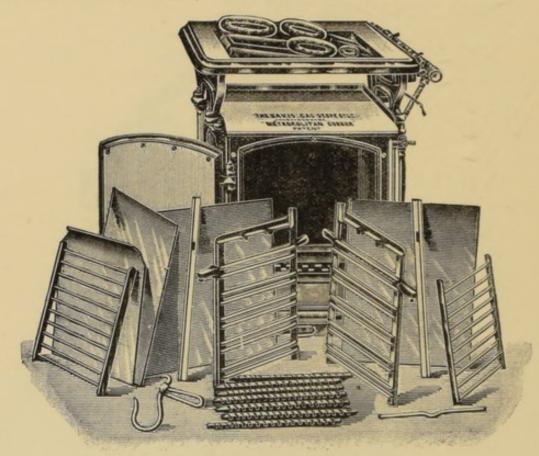
Manufactured by The Davis Gas Stove Co., Ltd., Camberwell, S.E.

DIVISION C.—CLASS III.—Section 2. Cooking Apparatus—continued.

#### Diamond Metropolitan Cooker.

Silver Medal, 1903.

TO DAVIS GAS STOVE CO., LTD.



DESCRIPTION.—The interior of this Stove may be taken to pieces and reconstructed. The sides and back, as well as the door of the oven, are enamelled, and the fittings of the sides and back will take out.

Sizes .- Various.

PRICES.—From £4 12s. 6d. to £12 15s., according to size.

Manufactured by The Davis Gas Stove Co., Ltd., London, Luton, and Falkirk.

DIVISION C .- CLASS III .- Section 3. Smoke-Preventing Apparatus.

Apparatus for the Prevention of Smoke from Boiler Furnaces.

Bronze Medal, 1902.

TO PATENT REGENERATIVE FURNACE CO.

Description.—The principle of the Furnace is to supply the unburned gases as they pass over the bridge, and when they are at the proper temperature, with the proportion of oxygen necessary to cause their ignition. The air is conveyed to the back of the bridge without coming in contact with glowing carbon, and in its passage becomes heated to a proper temperature for admixture with the gases passing between the blow-pipes. The air is drawn into a tube by means of a small steam-jet, which is regulated by a valve, and in passing under the fire-bars into the air-chamber it becomes heated, and passing up into the blow-pipes (made of highly refractory material), which extend to the crown of the furnace, is forced out in fine jets through the apertures and mingles with the volume of the gases passing between the pipes with just sufficient force to secure a thorough admixture and the ignition of the gases.

PRICE. - £37 10s.

Manufactured by The Patent Regenerative Furnace Co., Ltd., Greenwich Iron Works. DIVISION C.—CLASS III.—Section 4. Lighting, Including Electric Lighting.

## Anti-Vibration Incandescent Gas Lamps.

Bronze Medal, 1903.

To Anti-Vibration Incandescent Lighting Co.

(See page 303 of principal list.)

DIVISION C.—CLASS III.—Section 4. Lighting, Including Electric Lighting—continued.

Acetylene Carbide to water Acetylene Generator.

Bronze Medal, 1904.

To WM. MOYES & SONS.

Description.—The Acetylene plant consists of extra strong cast-iron generators with gun-metal discharge cocks, cast-iron washer with condensing and cooling pipes, cast-iron cistern with water supply cocks and strong angle iron frame. This plant takes lump carbide placed in strong wire baskets or trays, thus preventing overcharging of generators. The water enters the generators at same connection as outlet for gas, and flows down inside to bottom of generator, and rising slowly it acts on the carbide in the first basket from below, the gas generated passing through the pipe to washer, thus regulating supply of water to carbide and preventing any undue pressure. Gas flows onwards through condensing pipes to holder and thence to burners.

PRICES.—From £10.

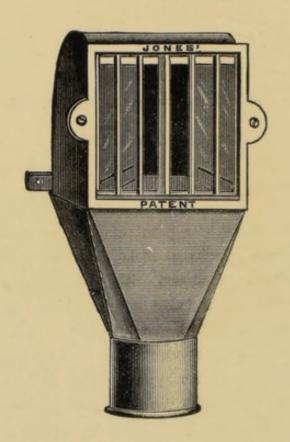
Manufactured by Wm. Moyes & Sons, 277, Maxwell Road, Glasgow.

DIVISION C.-CLASS III.-Section 6. Ventilators.

Air Inlet Ventilator for Drains.

Bronze Medal, 1902.

To JOHN JONES.



DESCRIPTION.—The Mica Valves are each pivoted on an axis which is vertical in one plane, but diverges from the vertical line at its upper end. By this means the direct weight of the Valves does not have to be overcome when it opens, as each part of the Valve has merely to turn on its hinge or pivot like a door, while the inclination of the axis closes the Valves with any return current of air.

SIZES AND PRICES .- 4 in., galvanized cast iron, 8s. 6d.; 9 in., do., do., 35s.

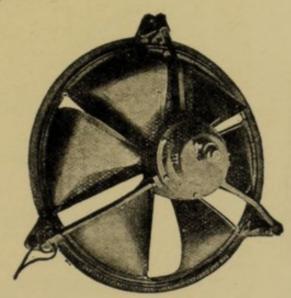
Manufactured by John Jones, Carlyle Works, Chelsea, S.W.

DIVISION C.-CLASS III.-Section 6. Ventilators-continued.

Ventilating Fans.

Bronze Medal, 1903.

To SUN FAN Co., LTD.



DESCRIPTION.—All sizes are of the steel-clad type, and have circular bodies with four poles, each journal and end plate is cast in one piece, being so designed that the motors may either have open ends, or be ventilated or entirely enclosed, in which case they are made dust, steam, water, or gas tight. In the ventilated or totally enclosed motors, doors are provided over the commutator and brushes, giving free access to these parts. They are of large size, and may be immediately opened or closed by turning a milled nut.

PRICES .- Various.

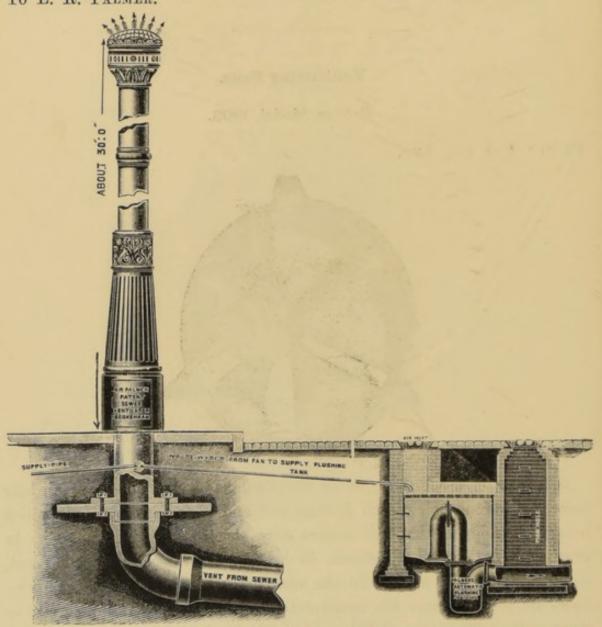
Manufactured by The Sun Fan Co., Ltd., Bradford.

DIVISION C.—CLASS III.—Section 6. Ventilators—cont.

Ventilating Column fitted With Water Fan.

Bronze Medal, 1902.

TO E. R. PALMER.



Description.—The Ventilating Column is fitted with a Fan driven by water power, which extracts foul air from sewers, giving a velocity of 20,000 feet through 10 in. shaft. The water after propelling Fan passes to flushing tank in road. These Fans are made for the induction of fresh air into sewers fixed at intervals as may be required. This Ventilating Fan is also used for the ventilation of underground conveniences. The waste water is again used for flushing urinals.

Sizes.—Up-shaft 10 in. or 12 in. diameter; height, 30 ft. above ground. PRICES.—£35 to £40, complete with Fan.

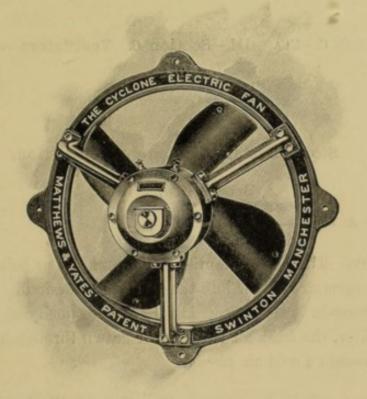
Manufactured by E. R. Palmer, Hygiene Works, Beckenham.

#### DIVISION C.—CLASS III,—Section 6. Ventilators—continued.

Fans for Ventilation.

Bronze Medals, 1902 and 1903.

To Matthews & Yates.



DESCRIPTION.—It consists of a steel magnet ring with two internal poles, and two cast iron end covers. The Armature is of the toothed drum type, insulated throughout with Micanite. The End Covers carry the bearings, which are fitted with an oil ring. The Brushes are usually of carbon, and the whole arrangement so constructed that the spindles cannot work loose. It is fire, dust, and damp proof, and consequently can be fixed in positions where an open type motor would be out of the question.

Sizes.—12, 15, 18, 24, 33, 36, 42, 48, and 60 in. diameter.

PRICES.—12 in., £12; 60 in., £60.

Manufactured by Matthews & Yates, Ltd., Cyclone Works, Swinton,
Manchester.

DIVISION C .- CLASS III .- Section 6. Ventilators - continued.

## Stott's System of Plenum Ventilation.

Bronze Medal, 1903.

То Ј. Ѕтотт & Со.

Description.—The plant comprises an electrically or belt-driven fan for forcing fresh warm or cold air into the building as desired. A revolving air filter and running-in water is geared to the fan for purifying the air. After passing the filter, the fresh air is forced or drawn through heating pipes or bye-passed through a cold air passage.

Manufactured by J. Stott & Co., Vernon Works, Oldham.

DIVISION D .- Section 1. Clothing.

"Non-flam" Safety Flannelette.

Bronze Medal, 1902.

To WHIPP BROS. & TODD, LTD.

Sizes.-Made in all qualities.

Manufactured by Whipp Bros. & Tod, Ltd., 10, Aytoun Street, Manchester; Mills: Leigh and Todmorden.

#### DIVISION D .- Section 2. Beds and Other Furniture.

Improved Dry Seat for Tramcars, etc.

Bronze Medal, 1902.

Dry Outdoor Seats. Bronze Medal, 1903.

To Frank Nicholson Law.

Description.—A waterproof cover is provided in the interior of the back which can be drawn over the seat and returns automatically. These seats can be fitted up with, or without, coin-free apparatus.

Sizes.—To seat one, two, four, or six persons, or made in any size to order.

PRICES.—According to design and size, supplied on application.

IN PARTS.—Backs made to suit existing seats.

Manufactured by Law & Ormerod, Factory Fold, Hollinwood.

#### DIVISION D.-Section 3. Hospital and Sick Room Appliances.

Sick-room Furniture.
Bronze Medal, 1903.

TO C. PRATT & SON.

Description.—(1) A Bedroom Suite for Nurse's room, in American Ash polished natural colour; (2) a Nurse's Combination Toilet Table and Washstand; (3) a Corner Medicine Cupboard; (4) a Night Nurse's Cupboard with table-top; (5) a Surgical Dressing Table with Zinc top; (6) a Patient's Bedside Locker; (7) a Patient's Night Commode with collapsible arms; (8) a Patient's Bed Screen; (9) a Self-propelling Wheel Easy Chair; (10) a Patient's Bed Table.

PRICES.-Will vary according to quantity of articles made.

Manufactured by Christopher Pratt & Sons, North Parade, Bradford.

Van Ambulance. Silver Medal, 1902.

To CHALMERS & Co.

(See page 337 of principal list.)

Accident Ambulance Van. Silver Medals, 1903 and 1904.

To Wilson & STOCKALL.

(See page 336 of principal list.)

Brougham Ambulance, with Convertible Stretchers.
Silver Medals, 1903 and 1904.

To WILSON & STOCKALL.

(See page 338 of principal list.)

DIVISION D.—Section 3. Hospital and Sick Room Appliances—cont.

Temporary Building with double air spaces to sides and roof, and fire-resisting lining.

Bronze Medal, 1904.

To Speirs & Co.

Description.—Composite Iron and Wood Buildings erected on the "Speirs" System of Construction have the roofs double boarded and felted, to form an air-locked space, and walls divided into two "Air-locked Spaces" by special arrangement of timber framing and employment of specially prepared felts. The interior coverings are either the ordinary tongued and grooved wood matchboarding, or cartridge boarding applied to give a seamless wall, or fire-resisting plaster slabs.

Manufactured by Speirs & Co., 126, West Regent Street, Glasgow.

India-rubber Padded Room, with Seamless Floor and Gutter.

Silver Medal, 1904.

To Pocock Bros.

Description.—This room is made of seamless rubber cloth. The floor is laid in one piece, and stuffed with a non-consolidating material. It has an aluminium gutter by which the excretion and water used for washing and flushing is carried away. The gutter is not effected by uric or other acids

Size.—As required.

PRICE.-- £80 to £100, according to size and fittings.

Manufactured by Pocock Bros., 235, Southwark Bridge Road, S.E.

#### DIVISION D.—Section 4.—Domestic Appliances.

Mackey's Steam Lids for Saucepans.

Bronze Medal, 1903.

To H. LEGGOTT & Co.

Movable Ash-bin with Metal Cage.

Bronze Medal, 1902.

To Pendleton Sanitary Engineering Co. (Sanitaries, Ltd.)

#### Ronuk.

Bronze Medal, 1903.

To RONUK, LTD.

DESCRIPTION.—A Sanitary Polish and Cleanser for the first preparation and polishing of all kinds of wood flooring, also linoleum, leather, carved woodwork, furniture, &c.

Sizes—In 2, 4, 7, and 14-lb. tins (Concentrated form), also in smaller proprietary sizes, and in two-gallon cans (Liquid form).

PRICES-Various, according to size.

Manufactured by "RONUK," LTD. Registered Office and Works,
Portslade, near Brighton.

## DIVISION D.—Section 4.—Domestic Appliances—continued.

#### Barrel Tilter.

Bronze Medal, 1903.

TO H. H. THOMPSON.

Description.—The appliance consists of an iron tube containing a powerful spring, increasing or diminishing the length as it is released or compressed. When first fixed one end of the appliance rests against the cellar wall above the cask, while the other end grips the forward part of the cask, the spring being compressed. As the liquor is drawn out the spring expands, and so forces the front part of the cask downwards.

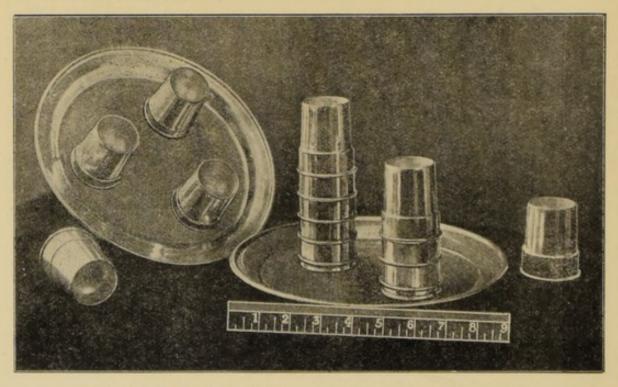
Sizes.—Any size casks.

PRICE.-£1 1s. each.

Manufactured by H. H. THOMPSON.

## Individual Communion Cups. Bronze Medal, 1904.

To ALEXANDER KNOWLES.



Description.—Individual Communion Cups and Trays, designed to obviate the risks of contagion following the use of a common cup. Made in such a manner as to protect the contents from all contamination up to the instant of use, and to be carried and handed without overturning.

PRICES.--Cups 1s., 2 base trays 5s., 3 base trays 6s. each, of aluminium. Silver cups 6s. each (1 oz.). Silver trays to estimate.

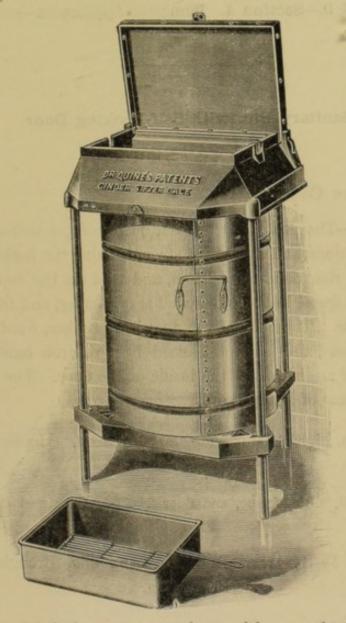
Manufactured by ALEX. KNOWLES.

DIVISION D.-Section 4. Domestic Appliances-continued.

Combined Ashbin Stand and Cinder Sifter.

Bronze Medal, 1904.

TO SANITARIES, LTD.



Description.—Made in strong cast-iron, with wrought iron legs. Bin locks in place. Can be used with or without cinder sifter.

Size.—Any ordinary bin; height and width to be given.

PRICE.—With bin one guinea.

Manufactured by Sanitaries, Ltd., Pendleton, Manchester.

# DIVISION D.-Section 4. Domestic Appliances -continued.

# Sanitary Bin, with Self-Locking Door.

Bronze Medal, 1903.

To SANITARY BIN Co., LTD.

Description.—The Bin is D shaped, made of galvanized metal, with angle iron projections, and iron strips strengthening the backs and corners, with a plain iron rim round the bottom, and a lid on the top for receiving the refuse. The frame in the outer wall is of timber, and fitted to receive the hingeless door. The body of the door is of timber, fixed in a wrought iron band or frame, and is strengthened by two iron cross pieces with pivot ends, which are bolted to the inside of the door. The door can only be opened by means of patent keys.

Sizes.— $22\frac{1}{2}$  in. high, 18 in. wide,  $21\frac{1}{2}$  in. deep. Holding capacity of 4 c. ft.

PRICES.—26s. 3d. Bin, frame, and door 24s. 6d., registered galvanised cover 1s. 9d. each.

Manufactured by Sanitary Bin Co., Ltd., 45a, Broughton Lane, Broughton.

#### DIVISION D .- Section 7. Foods.

#### Shredded Wheat Biscuits.

Bronze Medal, 1903.

TO SHREDDED WHEAT CO.

DESCRIPTION.—Shredded Wheat Biscuits, a product of the whole wheat grain, made light and short by mechanical shredding and thorough cooking. Untouched by hand in the process of manufacture.

Size.—12 biscuits to the carton.

PRICE.-7d. per carton.

Manufactured by The Natural Food Co., Niagara Falls, New York, U.S.A.

#### Mellin's Food.

Bronze Medal, 1903.

To Mellin's Food, Ltd.

Manufactured by Mellins Food, Ltd., Marlborough Works, Stafford Street, Peckham, S.E.

Cocoa Preparations.

Silver Medal, 1902.

Pure Cocoa.

Silver Medal, 1904.

To CADBURY BROS., LTD.

#### DIVISION D. - Section 8 .- Domestic Filters.

Berkefeld Filter.

Bronze Medal, 1901.

TO BERKEFELD FILTER Co.

(See page 366 of principal list.)

Silica Filter for attaching to a Domestic Tap.

Bronze Medal, 1902.

To VERNON PARKER.

Pasteur-Chamberland Filter.

Silver Medal, 1901.

To J. Defries & Sons, Ltd.

(See page 367 of principal list)

DIVISION D.-Section 8.-Domestic Filters-continued.

Filters for Hot and Cold Water, with Thermometers attached.

Bronze Medal, 1904.

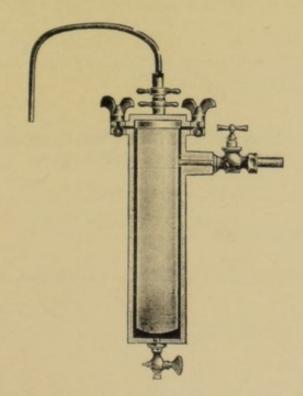
To Slack & Brownlow.

Manufactured by Slack & Brownlow, Gorton, Manchester.

Germ Filter. Bronze Medal, 1902.

Germ Filter with Preliminary Strainer.
Bronze Medal, 1903.

To SLACK & BROWNLOW.



DESCRIPTION.—The Filter consists of a hollow cylinder of a porous porcelain closed at one end, and through which the water is forced.

Manufactured by SLACK & BROWNLOW, Abbey Hey, Manchester.

#### DIVISION D .- Section 9 .- Mineral Waters.

Improved Syphon, and Excellence in Manufacture of Aerated Waters.

Bronze Medal, 1902.

To JEWSBURY & BROWNE.

DESCRIPTION.—The siphon has a glass cup and flange so as to avoid the danger of metallic contamination.

Manufactured by Jewsbury & Browne, Ardwick Green, Manchester.

Aerated Waters, prepared from Bradford Corporation Water, filtered through Porcelain.

Bronze Medal, 1903.

To F. M. RIMMINGTON & SON, LTD.

Manufactured by F. M. RIMMINGTON & Son, Ltd.

DIVISION D.—Section 11. Antisepties and Disinfectants.

Carbolic Acid Preparations.

Silver Medals, 1902, 1903, and 1904.

To F. C. CALVERT & Co.

(See page 358 of principal list.)

Chloros.

Silver Medal, 1902.

TO THE UNITED ALKALI CO.

(See page 382 of principal list.)

Izal.

Bronze Medal, 1902.

To Newton, Chambers & Co.

(See page 379 of principal list.)

### DIVISION D. Section 12. Disinfecting Apparatus.

Saturated Steam Disinfector. Silver Medal, 1902.

Equifex Disinfector, with Automatic Siphonic Attachment. Silver Medal, 1904.

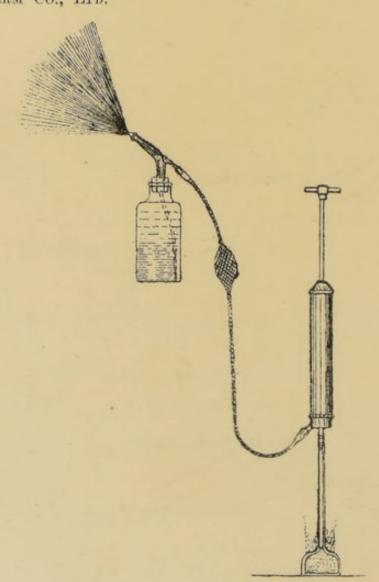
To J. Defries & Sons, Ltd.

(See page 386 of principal list.)

Killgerm Sprayers for applying Liquid Disinfectants.

Bronze Medal, 1903.

To Killgerm Co., Ltd.



Description.—The apparatus consists of a quart bottle with specially constructed spray top, indiarubber tube and metal air pump to give strong blast.

Manufactured by Killgerm Co., Ltd., Cleckheaton, Yorks.

DIVISION D.-Section 12. Disinfecting Apparatus-continued.

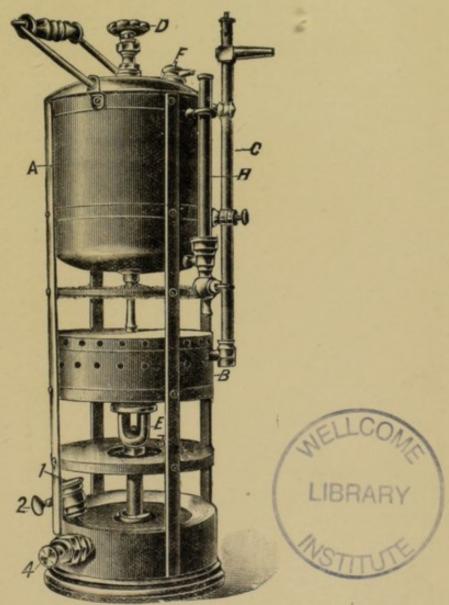
Improved Portable Spray Disinfector for Rooms. Bronze Medal, 1904.

To J. Defries & Sons, Ltd.

(See page 387 of principal list.)

Formaldehyde Regenerator. Bronze Medal, 1902.

To THE EXORS. OF THE LATE WM. SHARRATT.



Description.—The Regenerator consists of:—(A) a cylindrical copper receiver, which will hold 90 ounces of formaldehyde solution, sufficient to fumigate from 10,000 to 15,000 cubic feet; but additional solution may be added during the operation; (B) a shallow corrugated copper chamber in which the decomposition takes place, the fumes passing out through tube (C), to the nozzle of which a rubber pipe is attached, conveying them through the keyhole into the chamber to be disinfected. Below the chamber (B) is an ordinary Swedish heating lamp; (H) is a glass gauge, divided into 11 degrees.

PRICE COMPLETE, -£6 6s.









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