

[For a Classified Dictionary of Objects, with Names of Exhibitors and References to Pages in Catalogue, see page 141.]

GROUP I.

Mining, Quarrying, and Metallurgy.

MINERAL FUELS (Coals, Shales, and Mineral Oils). MINERAL ORES AND METALS. OTHER MINERALS (as Salt, Sulphur, Graphite, &c.); not including Building Materials; *vide* Group 13. NATURAL ALLOYS. DRAWINGS AND MODELS OF OBJECTS RELATING TO MINING, METALLURGY, AND MINERAL INDUSTRY, MINING ENGINEERING, SURVEYING AND MAP MAKING. GEOLOGICAL WORKS, AND GEOLOGICAL MAPS, &c. TOOLS AND INVENTIONS FOR MINING AND METALLURGY—FOR UNDERGROUND AND SURFACE WORK. STATISTICS OF PRODUCTION.

NOTE.—The figures inserted after the Catalogue entries represent the British Rotation Numbers of the Exhibitors. The Austrian Official Numbers will be added in a later edition.

INSOLE, G., & SON, *Cardiff, Wales*.—Coals—Merthyr Smokeless Steam Coal, Abergorki Locomotive Steam Coal, Low Main Smelting and Coking Coal; Foundry and Smelting Coke; Fossils and Fractures from the Steam Coal Seam. (1)

CWMAMAN COAL COMPANY (per Palmer, Hall, and Company), *Newcastle-on-Tyne*; and *Cardiff, Wales*.—Section of Upper Four Foot Seam Coal from Aberdare Colliery. (2)

BROAD, W., *Austro-Hungarian Vice-Consul, Woodlane Terrace, Falmouth*.—Mineralogical Specimens from Cornwall; Plans and Drawings, and Works on the Mineralogy of Cornwall and Devonshire, and on Mining and Quarrying. (3)

SIEMENS, C. WILLIAM, C.E., F.R.S., D.C.L., 3, *Great George Street, Westminster*.—Models of Furnaces and Apparatus for the direct production of Iron and Steel from the Ore, by the Siemens Process; with specimens of Iron and Steel made by this process, and the Materials employed in their production. (4)

WHITWELL, THOMAS, *Stockton-on-Tees*.—Drawings and Models of Patent Hot Blast Fire Brick Stoves; Blast Furnace; Apparatus for Utilization of Blast Furnace Gases; Whitwell's Regenerators for Smelt-

ing Copper, Lead, and Zinc, and for other Metallurgical operations producing fumes; Bessemer, Charcoal, and other Pig Iron produced by furnaces with Whitwell's Fire Brick Stoves. (5)

(See Appendix.)

EATON, J. R., 24, *Old Square, Lincoln's Inn, London*.—Model of a Coal Mine. (321)

MCCRAW, E. C., & COMPANY, *Royal Salt Works, Winsford, Cheshire*.—Salt in various forms. (18)

CORBETT, JOHN, *Stoke Prior Salt Works, near Bromsgrove, Worcestershire*.—Salt of various descriptions. (109)

NEWTON, KEATS & COMPANY, 28, *King Street, Liverpool*.—Metallic Ores. (740*)

(See also Additional Exhibitions.)

JOHNSON, MATTHEY & COMPANY, *Halton Garden Works, London*.—Metals. (740*)

(See also Group III., Additional Exhibitions and Appendix.)

PATENT PLUMBAGO CRUCIBLE COMPANY, *Battersea, London*.—Plumbago. (740*)

(See also Additional Exhibitions.)

GROUP II.

Agriculture, Horticulture, and Forestry.

PLANTS FOR FOOD AND PHYSIC (excluding Fresh Fruits and Vegetables which are to be the subject of temporary exhibitions). TOBACCO AND OTHER NARCOTIC PLANTS. VEGETABLE FIBRE (as Cotton, Flax, Hemp, Jute, China Grass, &c.); and other Plants of Commerce in their raw state. COCOONS OF SILK WORMS. ANIMAL PRODUCTS IN A RAW STATE (Skins, Hides, Feathers, Bristles, &c.). WOOL. PRODUCTS OF FORESTRY (Timber, Wood for Cabinet Work, Tanning Substances, Resin in a raw state, Dyeing Woods, Barks, Charcoal Tinder). PEAT AND ITS PRODUCTS. MANURES. DRAWINGS AND MODELS OF OBJECTS USED IN AGRICULTURE, HORTICULTURE, AND FORESTRY; FARM MAPS. WORKS OF THE EXPERIMENTAL STATIONS, WOODLAND AND FOREST DOOM BOOKS, STATICS OF FORESTS, &c. PROCESSES AND INVENTIONS FOR PRODUCING, TRANSPORTING, AND STORING THE ABOVE-MENTIONED PRODUCTS. PLANS OF GARDENS, DRAWINGS AND MODELS OF HORTICULTURAL IMPLEMENTS, HOT-HOUSES, CONSERVATORIES, IRRIGATION, &c. NEW METHODS OF HORTICULTURAL CULTIVATION. STATISTICS OF PRODUCTION.

(Vide Temporary Exhibitions, No. 4.)

SUTTON & SONS (the Queen's Seedsmen), *Reading, Berkshire*.—Agricultural and Horticultural Seeds; Dried Specimens of Grasses, Cereals and other Plants, cultivated in England; Models of Roots, &c. (6)

(See Appendix.)

ORMEROD, Miss ELEANOR, *Sedbury Park, Chepstow*.—Models of Potatoes, &c., in Messrs. Sutton & Sons' case. (6*)

CARTER, DUNNETT & BEALE, 237 and 238, *High Holborn, London*.—Models (natural size and coloured) of all the leading roots and plants in cultivation in the United Kingdom in profitable agriculture; Specimens of Agricultural Seeds and Plants; Growing examples of Grass Seed for pastures, towns, &c., and collection of specimens grown under sewage irrigation from exhibitors' seeds, in the Romford Sewage Farm of W. Hope, Esq. (7)

(See Appendix.)

RAYNBIRD, CALDECOTT, BAWTREE, DOWLING & COMPANY (LIMITED), *Basingstoke*.—Seed Corn, Grass, and other Agricultural Seeds, with Descriptive Catalogue. (8)

RADCLYFFE, DICK, & COMPANY, 129, *High Holborn, London*.—Seeds;

Garden Tools and Implements; Fern Cases; Horticultural Decorations. (761)

LOVEY, EDWARD, *Ponsnooth, Perran-ar-worthal, Cornwall*.—Beehives. (10)

MUNN, MAJOR W. AUG., *Churchill House, Dover*.—Beehive, called "Bar and Frame" Hive, or "Hive within Hive;" sheltering the Bees from cold and wet, and providing easy means of hiving swarms, and removing Combs and Bees. (792)

LONDON MANURE COMPANY, 116, *Fenchurch Street, London*.—Manures and the materials used in their manufacture—Peruvian, Mexican, and Curaco Guano; Phosphates and Superphosphates of Lime; Ammoniacal Manures; Blood Manure; Coprolites and Pseudo-Coprolites; Bone Ash and Dissolved Bone; Turnip and other special manures. (11)

PACKARD, E., & COMPANY, *Ipswich, Suffolk*; *London Office: 155, Fenchurch Street*.—Artificial Manures, Phosphates of Lime, &c., from which they are made; Drawings and Photographs of exhibitors' works, and Models of Machinery. (12)

GIBBS, JAMES, & COMPANY, 16, Mark Lane, London; Works: London, Plymouth, Newport, and Bristol.—Patent Ammonia-fixed Guano; Chemical Manures and their constituents; Sulphuric Acid, &c.

(See Appendix.) (13)

FOWLER, GEORGE & THOMAS, 25, Great Dover Street, London.—Preparations for Destruction and Prevention of Insect Blights and Mildew on Plants; Horticultural Manures.

(See also Group III.) (377)

LLOYD, E., Grantham, Lincolnshire.—Horticultural Structures; Drawings of Iron Transportable Dwelling Houses for working men.

(See Appendix.) (14)

HUDSPITH, W., South Tyne Works, Haltwhistle, Northumberland.—Fern and Flower Stands of "Imperishable" Terracotta.

(15)

CLAYTON, SON & HOWLETT, Atlas Works, Woodfield Road, Harrow Road, London.—"Condensed" Peat for fuel or for conversion into Charcoal, prepared by patented Machinery, with samples of Raw Peat, as dug from Cambridgeshire, Yorkshire, Somersetshire, and Ireland; Photographic Illustration of the Peat Machine.

(324)

DOWN & COMPANY, Woburn, Bedfordshire.—"Down's Farmers' Friend," a dressing for seed-wheat, for the prevention of smut, and the ravages of the slug, grub, and wire-worm.

(344)

SIMON, H., C.E., 7, St. Peter's Square, Manchester.—Paget's Patent Garden Pumps and Fire Engines.

(See also Group XIII.) (541)

FOX, J. CAVAN, Royal Horticultural Gardens, South Kensington, London.—Rustic Summer House.

(82)

CLARKE, G. B., Woburn, Beds.—Wheat Protector for preserving seed wheat from smut and insects.

(29)

(See also Groups III. and IV.)

SWAN, BROTHERS, Kirkcaldy, N.B.—Baltic Flax.

(740*)

(See also Additional Exhibitions.)

MINIER, NASH & NASH, Strand, London.—Flower Roots.

(740*)

(See also Additional Exhibitions.)

BOWES, J. L., & BROTHER, Queen's Buildings, Liverpool.—Wools. (740*)

(See also Additional Exhibitions.)

BENCKE & SHARMAN, 7, Rumford Street, Liverpool.—Fibres, various. (740*)

(See also Additional Exhibitions.)

STEAD, BROTHERS, 11, Peter's Buildings, Liverpool.—Cotton Wool. (740*)

(See also Additional Exhibitions.)

DARBYSHIRE, MCKINNELL & COMPANY, Tower Buildings, Liverpool.—Series of Animal Products, imported into Great Britain from the River Plate, South America

(740*)

(See also Additional Exhibitions.)

NEILSON, H., 7, Brunswick Street, Liverpool.—South American Cotton. (740*)

(See also Additional Exhibitions.)

LEWIS & PEAT, 11, Mincing Lane, London.—Colonial Produce. (740*)

(See also Group III. and Additional Exhibitions.)

MEYERS & DAVIS, 56, Southwark Street, London.—Canes, Sticks, and Rattans in the rough, for walking and umbrella sticks, furniture, and fishing-rods

(740*)

(See also Additional Exhibitions and Appendix.)

MYERS, M., 12, Minories, London.—Ivory, Tortoiseshell, Shells, &c. (740*)

(See also Additional Exhibitions.)

WIGAN & COMPANY, 2, Budge Row, London.—Isinglass. (740*)

(See also Additional Exhibitions.)

PATRY & PASTEUR, 38, Mincing Lane, London.—Indigo. (740*)

(See also Additional Exhibitions.)

HEAL & SON, 195 and 198, Tottenham Court Road, London.—Bed-feathers.

(740*)

(See also Group VIII. and Additional Exhibitions.)

GARDINER, JOSEPH, & COMPANY, 5, New London Street, London.—Hard Woods. (740*)

(See also Additional Exhibitions.)

EATON, H. W., & SONS, 33, Old Broad Street, London.—Cocoons of Silkworms. (740*)

(See also Group V. and Additional Exhibitions.)

GORDON, J., & COMPANY,
5, Grosvenor Buildings, Liverpool.—Cotton
Wool. (740*)

(See also Additional Exhibitions.)

SMITH, R. M., Leith.—Flax, Tow,
and other fibres. (740*)

(See also Group IV. and Additional Exhibitions.)

CUNNINGHAM, J. & J., 102,
West Bow, Edinburgh.—Collection of Oil
Cakes and Manures imported into Great
Britain. (740*)

(See also Additional Exhibitions.)

LAWSON SEED & NURSERY
COMPANY, Edinburgh.—Collection of
Agricultural Seeds imported into Great
Britain. (740*)

(See also Additional Exhibitions.)

HUME, JOHN, Edinburgh.—Bristles.

(See also Additional Exhibitions.) (740*)

DUNDEE SEAL & WHALE FISH-
ING COMPANY (David Bruce, Manager),

Dundee.—Whalebone, Narwhal Horn, Oils,
&c. (740*)

(See also Additional Exhibitions.)

GILROY, BROTHERS, Dundee.—
Jute. (740*)

(See also Additional Exhibitions.)

HARRIS, S. & H., 57, Mansell
Street, London.—Sponges from Turkey and
the Bahamas. (740*)

(See also Additional Exhibitions and Appendix.)

EDINBURGH ROPERY COM-
PANY, Leith.—Hemp and other fibres.
(740*)

(See also Additional Exhibitions.)

ARCHER, JOHN KNIGHT, Liverpool.
—Dye Woods. (740*)

(See also Additional Exhibitions.)

PATENT CORK COMPANY,
1, Great Winchester Street Buildings, London.
—Cork. (16)

GROUP III.

Chemical Industry.

CHEMICAL PRODUCTS FOR TECHNICAL AND PHARMACEUTICAL PURPOSES (Acids, Salts, Chemical Preparations of all sorts). RAW SUBSTANCES AND PRODUCTS OF PHARMACY, MINERAL WATERS, &c. FATS AND THEIR PRODUCTS (Stearine, Oil, Acids, Glycerine, Soaps, Candles, and Tapers, &c.). PRODUCTS OF DRY DISTILLATION (as Refined Petroleum, Slate Oil, Paraffine, Phenyllic Acid, Benzoine, Aniline, &c.). ETHEREAL OILS AND PERFUMERIES. MATCHES, &c. DYE-STUFFS, MINERAL AND ORGANIC. RESINS (Washed, Dyed, or Bleached), SEALING-WAX, VARNISH, ALBUMEN, ISINGLASS, GLUE, STARCHES, DEXTRINE, &c. CONTRIVANCES AND PROCESSES USED IN CHEMICAL PRODUCTION. STATISTICS OF PRODUCTION.

SCOTT'S SEWAGE COMPANY,
Ealing, London.—Dried Sewage Deposit,
precipitated by means of lime from ordi-
nary sewage water, prepared for calcina-
tion; calcined sewage deposit, tender burnt;
the same burnt to Portland cement; the
burnt sewage cements reduced to powder;
the same cements set neat. (19)

(See also Group IX.)

FLEMING, A. B., & COMPANY,
Leith.—Printing and Lithographic Inks,
Varnishes and Oils; Black Ink for News-
papers, Books and Commercial Forms;
Coloured Ink for Fancy Printing and Litho-
graphy; Lamp and Vegetable Blacks; Vege-
table Machinery Oil; Printed specimens.
(20)

(See Appendix.)

CALVERT, F. C., & COMPANY, *Tower Chemical Works, Bradford, near Manchester*.—Acids—Carbolic, Rozalic, Picric, Cresylic; Dyes and Colours derived from the above acids; Carbolic Soaps, Disinfecting Fluid and Powder, Sheepwash, &c. (21)

CORNELISSEN & TALLE, 22, *Great Queen Street, London*.—Printing Ink and Varnishes; Colours for Chromo-Lithography and general Lithographic Materials. (22)

DENTON & JUTSUM, 8, *New Broad Street, London*.—Varnishes, Colours, Gums, Oils, and Greases. (23)

BORWICK, G., & SONS, 24, *Chiswell Street, London*.—Knife Powder. (70)
(See also Group IV. and Appendix.)

PICKERING, JOSEPH, *Mowbray Street, Sheffield*.—Plate Powder, Polishing Paste, Furniture Polish, Harness Blacking, Razor-strop Paste, and Knife Powder. (25)
(See Appendix.)

BOND, M. A., 75, *Southgate Road, London*.—Marking Inks, and Appliances for their use. (26)
(See Appendix.)

HUTCHINSON, JOHN, & COMPANY, *Widnes, Lancashire*.—Chemical Products of Alkali Manufacture—Soda, Caustic Soda, Sulphur, recovered from Alkali waste and Bleaching Powder. (27)

JOHNSON, MATTHEY & COMPANY, *Halton Garden Works, London*.—Platinum Refining Boilers, Sulphuric Acid Apparatus, Crucibles, Assay Apparatus, Syphons, and Condensing Coils; Measures and Weights in Iridio-Platinum for international use; Mineral Platinum, Palladium, Iridium, &c. (28)
(See also Group I. Additional Exhibitions and Appendix.)

CLARKE, G. B., *Woburn, Beds*.—Sheep Dipping Composition. (29)
(See also Groups II. and IV.)

DINNEFORD & COMPANY, 172, *New Bond Street, London*.—Magnesia, Fluid Magnesia, Salts of Magnesia, Granules, and other Pharmaceutical Preparations. (30)
(See also Group V.)

NEWCASTLE CHEMICAL WORKS COMPANY, THE (LIMITED), *Newcastle-on-Tyne*.—Bicarbonate of Soda, Refined and Unrefined Alkali, Bleaching Powder, Soda Crystals, Caustic Soda, and Chloride of Calcium. (31)

SMITH, T. & H., & COMPANY, 21, *Duke Street, Edinburgh*, and 12, *Worship Street, London*.—Chemical Products and Pharmaceutical Preparations; Morphine, Codeine, Cryptopia, and all Principles of Opium; Chloroform, Cantharidine, Aloine, Alkaloids, Pure Resins, Bromide of Potash, &c. (32)

CROY, ANDREW, 58, *North Hanover Street, Glasgow*.—Non-conducting Cement. (786)

WILKIN & CLARK, 44, *Finsbury Circus, London*.—Bichromate of Potash, with the chrome ore from which it is made. (33)

WATKINS, ALFRED T., 20, *Budge Row, London*.—Washing Fluid, called "Pan-katharon," to supersede soap and soda. (34)

BUSH, W. J., & COMPANY, 21 and 22, *Artillery Lane, Bishopsgate Street, London*.—Fruit Essences, Essential Oils, Quintessences for culinary purposes, Harmless Vegetable Colours for Confectionery, Effervescent Citrate of Magnesia, and other granular preparations. (35)

DUNCAN, FLOCKHART & COMPANY, 52, *North Bridge, Edinburgh*.—Chloroform; Medicated Pessaries, Suppositories, and Bougies; White Gutta-percha for Stopping Teeth. (36)

CARSON, W., & SONS, *Belle Sauvage Yard, Ludgate Hill, London*.—Paint—Anti-corrosive Paint for Iron Work, Porous Stone, Brick, and Wood; Improved Paint Pot. (37)

ALEXANDER, RICHARD, 23, *St. James's Square, Edinburgh*.—Furniture Polish. (38)

(See also Group IV.)

JACKSON, T. S., 199, *High Street, Southwark, London*.—Wood Stains, in Bottles. (806)

(See also Group VIII.)

SPENCE, J. BERGER, & COMPANY, *London, Manchester, and Glasgow*.—Natural Phosphate of Alumina; Phosphate of Ammonia; 45 per cent. Ammonia Phosphate Manure; Alum. (762)

RUNCORN SOAP AND ALKALI WORKS COMPANY, *Runcorn*.—Soap, Alkali, Refined and Carbonated Soda Ash; Refined Rosin, Bleaching Powder, Soda Crystals, Sulphate of Soda. (763)

(See Appendix.)

STEPHENS, H. C., 171, *Aldersgate Street, London*.—Wood Staining Fluids. (399)

(See also Group XI.)

UNIVERSAL PAINT COMPANY, *Oldmill, Farnworth, near Widnes, Lancashire*.—Paints. (5a)

COOPER, W. T., 26, *Oxford Street, London*.—Effervescing Lozenges. (16)

BRITISH SEAWEED COMPANY (LIMITED), *Whitecrook Chemical Works, Dalmuir, Glasgow*.—Chemical Products from Seaweed obtained by Stanford's Patent Process; Products obtained by means of Stanford's Patent Carbon System from House Refuse and Town Sewage. (39)

(See Appendix.)

BELL, J., & COMPANY, 338, *Oxford Street, London*.—Pharmaceutical Preparations, consisting of Extracts, Juices, Fluid Extracts, Oils, and Granular Salts. (40)

COHNÉ, S., & COMPANY, (per H. C. Haddon), 62, *Falmouth Road, London*.—Chemical Disinfecting Soap. (41)

FIELD, J. C. & J., *Upper Marsh, Lambeth, London*.—Sealing Wax; Wax and Sperm Candles; Composition Candles; Ozokerit, crude and refined; Ozokerit and Paraffine Candles; Wax and Stearine Tapers, and Toilet Soaps. (42)

(See Appendix.)

CLARKE, Rev. JAMES LANGTON. *The Common, Ealing, near London*.—"Lychnophylax," an improved method of, and apparatus for, preventing candles from guttering. (Exhibited by J. C. & J. Field, sole Agents for Great Britain and Austria.) (42*)

POLS, J. A., *Nye's Wharf, Old Kent Road, London*.—Refined Nut, Seed, Fish, and Animal Oils, free from Acid; Cotton Seed, raw as imported from Egypt; Cleansed and Ground Nuts. (44)

PRICE'S PATENT CANDLE COMPANY (LIMITED), *Belmont Works, Battersea, London*.—Candles, Night Lights, Oils, Perfumed Soaps; Paraffine, Stearine, Glycerine; Liquid Oils for use on Machinery, and for oiling Wool; also Ozokerit. [Rotunda.] (45 & 740*)

(See also Additional Exhibitions.)

YOUNG'S PARAFFINE LIGHT AND MINERAL OIL COMPANY.—69, *St. George's Place, Glasgow*.—Shale Mineral Oils for Burning and Lubricating; Candles, Paraffine, crude and refined; Sulphate of Ammonia; Sulphuric Acid; Paraffine Oil Lamps. (46)

ATKINSON, J. & E., 24, *Old Bond Street, London*.—Perfumes, Fancy Soaps, Toilet Powders; Preparations for the Hair, Skin and Teeth; Toilet Requisites and Perfumeries of every description. (47)

(See also Group X.)

PIESSE & LUBIN, 2, *New Bond Street, London*.—Ethereal Oils, Perfumery, Commercial Products of Flowers, Transferred Odours, and Fumigants; the "Odophone," or Gamut of Odours. [Rotunda.] (48 & 740*)

(See also Additional Exhibitions and Appendix.)

RIMMEL, EUGÈNE, 96, *Strand, London*.—Perfumery, Fancy Soaps, &c. [Rotunda.] (50)

STAMP, E. B., 29, *High Street, Hampstead, London*.—Myrrhine Tooth-Paste; Dentrifices, various; "Véritable Vinaigre anglais de Stamp;" Styptic Paper; Essential Salt of Celery. (51)

ROWLAND, A., & SONS, 20, *Hatton Garden, London*.—Macassar Oil, for the hair; Kalydor, for the complexion; Odonto Tooth Powder. [Rotunda.] (52)

CROWN PERFUMERY COMPANY 40, *Strand, London*.—Perfumes; Toilet Soap and Toilet Requisites. (53)

BRYANT & MAY, *Fairfield Works, Bow, London*.—Safety Wood and Wax Matches; Match Holders, Cigar Lights, Coloured Tapers, &c. (54)

SMITH, T. O., 11, *Grass Market, Edinburgh*.—Liquid Blue, for clearing and beautifying cotton and linen after washing. (55)

(See Appendix.)

BEWICKE, D., & COMPANY, *Wallace Road, Hackney Road, London*.—Varnishes, Pigments; Lithographic, Letterpress, and Copperplate Printing Inks; Endorsement Ink; Boiled Oils, &c. (56)

COLMAN, J. & J., 108, *Cannon Street, London*.—Starch and Starch Products made from Rice; Blues. (57)

(See also Group IV.)

GREEN, J., 12, *Graham Terrace, Ridley Road, Kingsland, London*.—Gelatine in Sheets, prepared for tracing, for artificial flowers, &c.; Wrappers for Bonbons, Confections, &c. (58)

JONES, ORLANDO, & COMPANY, *York Road, Battersea, London*.—Starch made from Rice. (43)

MANDER BROTHERS, *Wolverhampton*.—Varnishes, with the Gums used in their manufacture, and specimens of Varnished Work. (59)

PARSONS, FLETCHER & COMPANY, *Gravel Lane, Southwark, London*.—Indian Starch. (60)

SANDERSON, A., & COMPANY, *Albert Dock Colour Works, Hull*.—Painters' Colours and Varnishes. (61)

NICOLL, D., & COMPANY, 58 and 59, *Paternoster Row, London*.—Uninflammable Starch—Ladies' Muslin Dresses, Mosquito Net, Muslin Window Curtains, Cotton Prints, Timber, Laths, Flooring and Partitions rendered fireproof. (62)

(See also Group V.)

SISSONS BROTHERS & COMPANY, *Sculcoates, Hull*.—Varnishes for Railway and other Carriages and Painters, with Gums from which they are made; and Drying Oils. (63)

WRIGHT, FREEMAN, *Needham Market, Suffolk*.—Glue for Cabinet Makers and Carpenters, known as "Crown Glue," with specimens of the Waste Hides, &c., from which it is made, and examples of its application. (64)

BERGER, SAMUEL, & COMPANY, *Bromley-by-Bow, London*.—Rice Starch; Improved Patent Rice Starch in powder; Air-dried Starch; samples of the Rice used in the manufacture, and of gluten and fibre derived from it. (65)

ADAMS, JOHN, *Victoria Park, Sheffield*.—Furniture Polish, Plate Powder, Brass Polish. Citrate of Magnesia. (66)

(See Appendix.)

HEMINGWAY, S., & COMPANY, *Trafalgar Street, Bradford, Yorks*.—Dry Soap and Starch. (764)

(See also Group IV. and Appendix.)

MATTHEWS, J., & COMPANY, *Hatton Garden Works, Liverpool*.—Oils and Dyalteries. (740*)

(See also Additional Exhibitions.)

BANNER, SAMUEL, 4, *Fazakerley Street, Liverpool*.—Petroleum Spirit and Oils; Rosin, Turpentine, Cotton Seed Oil, and Olive Oil. (740*)

(See also *Additional Exhibitions*.)

TOBIN, J. A., *Water Street, Liverpool*.—African Oil Seeds. (740*)

(See also *Additional Exhibitions*.)

EVANS, LESCHER, & EVANS, 60, *Bartholomew Close, London*, and EVANS, SONS, & COMPANY, *Liverpool*.—Collection of the Substances imported into Great Britain for Medicinal Purposes. (740*)

(See also *Additional Exhibitions*.)

LEWIS & PEAT, 11, *Mincing Lane, London*.—Drugs, Gums, and Drysalteries. (740*)

(See also *Group II. and Additional Exhibitions*.)

ROSE & WILSON, 31, *Threadneedle Street, London*.—Oil Seeds and Oils. (740*)

(See also *Additional Exhibitions*.)

BAILDON, H. C., 73, *Prince's Street, Edinburgh*.—Mineral Waters imported into Great Britain from the Continent of Europe, with Salts derived from them; Two Specimens of American Mineral Waters. (740*)

(See also *Additional Exhibitions*.)

FOWLER, GEORGE & THOMAS, 25, *Great Dover Street, London*.—Preparations for Destruction and Prevention of Parasites infesting Man, Animals, and Organic Materials; Phosphor Paste. (377)

(See also *Group II.*)

GROUP IV.

Substances of Food as Products of Industry.

FLOUR AND OTHER FARINACEOUS PRODUCTS, MALT AND ITS PRODUCTS. SUGAR AND ITS PRODUCTS SPIRITS AND SPIRITUOUS LIQUORS, &c. WINES. ALE, BEER, PORTER, &c. VINEGARS. PRESERVES AND EXTRACTS (Extracts of Meat, Portable Soup, Condensed Milk, Preserved Vegetables, Preserved Meat, &c.). TOBACCO AND SIMILAR MANUFACTURES. CONFECTIONERY, GINGER-BREAD, CHOCOLATE, COFFEE SUBSTITUTES, &c. PROCESSES AND INVENTIONS FOR PREPARING ALL THESE ARTICLES. STATISTICS OF PRODUCTION.

COLMAN, J. & J., 108, *Cannon Street, London*.—Mustard; Corn Flour made from Rice. (57)

(See also Group III.)

BORWICK, G., & SONS, 24, *Chiswell Street, London*.—Baking Powder, Custard Powder, Spices. (70)

(See also Group III., and Appendix.)

KEILLER, JAMES, & SON, *Dundee*.—Confections, Preserves, Candied Peel, and Marmalade. (765 & 740*)

(See also Additional Exhibitions.)

MCGREGOR, JAMES, & SON. *Dumfries*.—Confectionery and Preserves. (766)

DUNVILLE & COMPANY, *Royal Irish Distilleries, Belfast, Ireland; and Beaufort Buildings, Strand, London*.—Matured Old Irish Whiskey. (71)

ROBUR DISTILLERY COMPANY (LIMITED), *Camden Town Station, London*.—Spirit called "Robur," containing Alcohol, Tannin, Theine, tonic and flavouring principles, Sugar and Water; entirely free from fusil or essential oil or acidity; Robur liqueur, distilled and compounded in 1873. (72)

PARKINGTON, J. R., & COMPANY, 24, *Crutched Friars, London*.—Champagne produced by Roper, Frères & Cie., "Carte Blanche," at 26 frs. per dozen; "Lion d'Or," at 35 frs. per dozen. James

Anderson & Co.'s Champagne at 60s., and extra quality ditto at 77s. per dozen. (17)

WYNDHAM, F., & COMPANY, 37, *Eastcheap, London*.—"Esprit des Œufs." (343)

HENLEY & SON, *Joiner Street, Southwark, London*.—Devonshire Cyder, Herefordshire Perry, and London Vinegar. (73)

YOUNGER, WM., & COMPANY, *Edinburgh and Belvedere Road, London*.—India Pale Ale, strong Edinburgh Ale, and Extra Stout, in bottles. (74)

(See Appendix.)

BARNARD, W., *Sawbridgeworth, Hertfordshire*.—Malt, Pale and Brown. (75)

ANGLO-BAVARIAN BREWERY COMPANY, *Shepton-Mallet, Somersetshire*.—Light family Ale, export Pale Ale, and strong Ale, in cask; bottled Ale, for home consumption and exportation. (76)

NEVILLE, REID & COMPANY, *Brewery, Windsor*.—Ale and Stout. (767)

GARTON, RUSSELL & COMPANY, *Laurence Hill, Bristol*.—Ale and Beer. (768)

WALKER, P., & SON, 105, *Duke Street, Liverpool*.—Monro & Co.'s "Falstaff" Strong Mild Ale. (341)

- CLARKE, G. B., *Woburn*.—Woburn Sauce. (29)
(See also Groups II. and III.)
- CROSSE & BLACKWELL, *Soho Square, London*.—Pickles, Sauces, Vinegar; Jams, Jellies, Marmalade; Preserved Fruits, Preserved Meat, Fish, Soup, Vegetables, &c. (77)
- GOODALL, BACKHOUSE & COMPANY, *Boar Lane, Leeds*.—Yorkshire Relish; Orange Quinine Wine; Table-Salt, and Baking Powder. (78)
(See Appendix.)
- MCCALL, JOHN, & COMPANY, *Houndsditch, London*.—Preserved Meat from Australia and South America; Preserved Fish from North America. (79)
- MOIR, JOHN, & SON, 56, *Virginia Street, Aberdeen, Scotland, and 14, Commercial Street, London*.—Preserved Provisions—Meats, Soups, Fish, Jams, Jellies, Marmalades, Pickles, Sauces, and Fruits. (80)
(See Appendix.)
- BATTY & COMPANY, 15 and 16, *Pavement, Finsbury, London*.—Pickles, Sauces, Jellies, Marmalade, Olives, Spices, Mustard, Currie Powder, Anchovies, Cambridge Pork Sausages, Christmas Plum Pudding, Mincemeat, and Preserved Provisions. (81)
- HEWITSON & COMPANY, 17, *Harp Lane, Great Tower Street, London*.—Patent Solid Pea Soup, and Beef Fat prepared without salt. (83)
- ENGLISH CONDENSED MILK COMPANY (LIMITED), 96, *Leadenhall Street, London*.—"Aylesbury" Condensed Milk, and preparations of the same with Cocoa, Chocolate, and Coffee; "Aylesbury" Essence of Coffee. (84)
- ALEXANDER, RICHARD, 23, *St. James's, Edinburgh*.—Chutney; Currie Powder and Sauce. (38)
(See also Group III.)
- MCCOMBIE, J., & COMPANY, *Peterhead*.—Cured Herrings; Cod Liver Oil; Carriers' Fish Oil. (770)
- GEYELIN & COMPANY, *Belgrave House, Argyle Square, London*.—Concentrated Food, exhibited for portability and economy. (771)
- MACKAY, JOHN, 119, *George Street, Edinburgh*.—Flavouring Essences and other preparations for domestic purposes, and Articles of Diet for invalid and table use, &c. (92)
- KING, FREDERICK, & SON, 140, *Leadenhall Street, London*.—Potatoes, preserved as for the British Army and Navy; Patent Dessicated Soup, Beef, and Vegetables, reduced to one-thirteenth of their original bulk. (323)
- GRUNEBAUM, J., 31, *Sackville Street, London*.—Havannah Cigars. (85)
- FRY, J. S., & SONS, 12, *Union Street, Bristol, and 252, City Road, London*.—Chocolate and Cocoa. (86)
- HUNTLEY & PALMERS, 9, *Road Lane, London, and Reading*.—Biscuits, plain and fancy, manufactured by improved steam machinery. (87)
(See Appendix.)
- YUILLE, ANDREW, *Glasgow*.—Essences of Coffee, pure; of Coffee and Chicory, Coffee and Cocoa, Chicory, Coffee with Milk and Sugar; Essences for flavouring; Extracts of Celery, Shallots, Orange and Lemon Peel, Ratafia, Cinnamon, Cochineal, Vanilla, Garlic, Sage and Thyme. (88)
- PEEK, FREAN & COMPANY, *London*.—Fancy Biscuits. (89)
- BROTCHIE, R., & COMPANY, *Leith*.—Chicory, raw and in various stages of manufacture. (49 & 740*)
(See also Additional Exhibitions.)
- PLUNKETT, JOHN, & COMPANY, *Portland Works, Portland Street, Dublin*.—Pale Malt for brewing Ale and Porter; Patent Roasted Malt, for colouring and flavouring Ale and Porter. (90)

HEMINGWAY, S., & COMPANY,
Bradford.—Baking Powder. (764)
(See also Group III., and Appendix.)

SAMUELSON, E., *Liverpool*.—
Tobaccos. (740*)
(See also Additional Exhibitions.)

HUBBUCK, J., *Liverpool*.—Samples
of Foreign Grain and Breadstuffs, imported
into *Liverpool*. (740*)
(See also Additional Exhibitions.)

BOSTOCK & ABINGTON, 20,
James Street, Liverpool.—Hops. (740*)
(See also Additional Exhibitions.)

BRANCKER, J. B., *Liverpool*.—
Colonial Sugars and Coffees. (740*)
(See also Additional Exhibitions.)

BARUCHSON, ARNOLD, &
COMPANY, *London, Liverpool, and Greenock*.
—Beetroot Sugar, imported from France,
Belgium, Germany, and Austria. (740*)
(See also Additional Exhibitions.)

SOUTH OF ENGLAND OYSTER
CULTIVATING COMPANY, 61, *Grace-
church Street, London*.—Oysters. (186)

McANDREWS & COMPANY,
Liverpool.—Dried Fruits and Nuts. (740*)
(See also Additional Exhibitions.)

JOHNSTONE, S. P., *Liverpool*.—
Brazilian Sugar. (740*)
(See also Additional Exhibitions.)

SINGLEHURST, R., & COM-
PANY, *Liverpool*.—Brazilian Fruits. (740*)
(See also Additional Exhibitions.)

HOW & BARCLAY, *Liverpool*.—
Cocoas. (740*)
(See also Additional Exhibitions.)

FORTNUM, MASON & COM-
PANY, 182, *Piccadilly, London*.—Tea,
Coffee, Foreign Pickles, Nuts, Preserved
Fruits and Vegetables, and various Foreign
Products. (740*)
(See also Additional Exhibitions.)

SMITH, R. M., *Leith*.—Baltic Grain
and Pulse. (740*)
(See also Group II. and Additional Exhibitions.)

FERGUSON, ALEXANDER, *Melbourne
Place, Edinburgh*.—Spices. (740*)
(See also Additional Exhibitions.)

CANTRELL & COCHRANE, 25,
Bank Street, Belfast.—Aërated Beverages.
(793)

BEWLAY & DRAPER, 23, *St.
Mary Street, Dublin*.—Aërated Waters as
Beverages and in Imitation of Natural
Mineral Waters; Soda, Seltzer, Kali, and
Lithia Waters; Lemonade, Ginger Beer, and
Ginger Ale. (342)

GROUP V.

Textile Industry and Clothing.

WASHED WOOL AND HAIR USED FOR TEXTILE FABRICS, CARDED WOOL AND WORSTED, COMBED WOOL AND WOOLLEN FABRICS, FELT CARPETS, BLANKETS, HAIR TISSUES, MIXED FABRICS, INCLUDING SHAWLS. COTTON, COTTON SUBSTITUTES, COTTON THREAD, COTTON FABRICS, AND CORDS. FLAX, HEMP, JUTE, AND OTHER FIBRES, YARNS, THREADS, AND FABRICS OF THE SAME, STRAW FABRICS FOR BONNETS, SCREENS, AND MATS, WEBS AND CORDS OF REED, CANE, BASS, HAIR, WIRE, &c. RAW SILK, SPUN SILK, AND MANUFACTURES OF SILK, SILK WASTES. SMALL WARE MANUFACTURES, GOLD AND SILVER CLOTHS AND EMBROIDERIES. LACE. HOSIERY, MILLED AND UNMILLED. FINISHED OBJECTS OF CLOTHING (Clothes, Gowns, Hats, Bonnets, Shoes and Boots, Gloves and Linen, &c.). UPHOLSTERY, CARPETING, CURTAINS, BED-FURNITURE, &c. ARTIFICIAL FLOWERS AND FEATHER ORNAMENTS. PROCESSES AND INVENTIONS USED IN THE PRODUCTION OF THESE MANUFACTURES. STATISTICS OF PRODUCTION.

NEWELL, C. J., *Newtown, Montgomeryshire, Wales*.—Welsh Gauze and Flannel. (95)

DINNEFORD & COMPANY, 172, *New Bond Street, London*.—Horsehair Friction Gloves, Belts, Bath Brushes, and Pads. (30)

(See also Group III.)

BLISS, W., & SON, *Chipping Norton*.—Tweeds, Coatings, Military Serges, Shawls, Coverlets, Travelling Rugs, Sadlers' Woollens, &c. (96)

DAY, HOWGATE & HOLT, *Devesbury*.—Woollen and Mixed Fabrics.—Presidents, Pilots, Reversible and Single Naps; Sealskins, Witneys, Friezes, Woollen Velvets; Meltons, Deerskins, Devon Naps. (97)

COGSWELL, J., & COMPANY, *Travbridge, Wiltshire*.—Doeskins, wool-dyed black, 5s. 9d. to 7s. 6d. per yard; Treble Doeskins and Indigo-Blue, milled, 8s.; Superfine, wool-dyed black milled, single and half-milled, 10s. and 7s. 6d. per yard. (98)

BIRCHALL, J. D., & COMPANY, *Leeds*.—Woollen Coatings, plain and fancy. (99)

ZOSSENHEIM, BROTHERS, *Huddersfield and Leeds; Works, Mirfield*.—Woollen Goods; Imitation Furs, Sealskin, Otterskin, Dogskin, Astrakan, &c., woven and finished. (101)

ENGERT & ROLFE, *Barchester Street, Poplar, London*.—Felts for covering boilers and roofs, and for ship-sheathing; Fibrous Asphalte for anti-damp course in walls. (102)

(See Appendix.)

KING, W., *Gillroyd and Springfield Mills, Morley, Leeds*.—Union Cloths, Meltons, Deerskins, &c. (103)

PGOLE, H., & COMPANY, *Saville Row, London*.—Woollen Goods. (104)

SMITH, W. JUN., *Morley, near Leeds, and 11, Aire Street, Leeds*.—Union, Melton, and Deerskin Cloths. (106)

STRETTON & COMPANY, *Bridgewater Place, Manchester*.—Cotton Cords—drab-coloured, fancy cut, fancy wove, printed, and self-colours; Lambskins—grey, white, and coloured; Diagonal Cantoons; Fancy Bedford Cotton Cords; Moleskins—drab, fancy bordered, coloured, embossed, printed, self-colours; Merinos—black silk finished, and coloured

Coloured Pocketings; Silicias—black, coloured, coloured diagonal, and printed; Satins—printed, coloured, new coloured fancy figured, watered; White Twills; Common and Patent Black Velvets; Velveteens—plain black patent, twilled black patent, imitation patent, black common, printed patent, embossed plain black patent, embroidered ditto, and coloured ditto. (The Cords, Moles, and Velveteens printed by John Whitehead.) (107)

WEBSTER, J., & SON, *Old Hall Mills, Gildersome, Leeds*.—Union Pilot Cloths, Plain, Printed, Cut, and Embossed; Woollen and Union Poncho Cloths. (108)

WHITEHEAD, R. R., & BROTHERS, (LIMITED), 14, *Hanover Street, Long Acre, London*.—Felt for Pianofortes and Harmoniums, Saddles, Gold Polishing, Shoes and Slippers, Gun Wadding, Filtering; Woollen Fabrics for mechanical purposes; Cloths for pianos; Woollen Driving Belts; Spongio-piline for medical purposes; Felt for Lung Protectors and Corn Plasters. (139)

STEINER & COMPANY, *Church, near Accrington*.—Turkey-red Cambrics; Twilled Cloth; Velvets; Muslins and Handkerchiefs, plain and printed. (110)

JONES, T. & J. H., EVANS & COMPANY, *Newtown, Montgomeryshire, North Wales*.—White and Coloured Welsh Flannels and Fancy Shirts; Welsh Shawls, plain, coloured, and striped; Welsh Tweeds. (111)

(See Appendix.)

HEPWORTH, B., & SON, *New Wakefield Mills, Dewsbury*.—Travelling and Carriage Rugs in Lambskin, Merino, Cloth, Mohair, and Blanket; Siberian Fur and Seal-skin Horse Rugs. (112)

WILKINSON, J., SON & COMPANY (LIMITED), *St. Helen's Mills, Leeds*.—Felt Carpets and Felted Cloth, Patent Brussels, Velvet, and Floor Carpets. (113)

STRACHAN & COMPANY, *Lodge-moore Mills, Stroud*.—Woollen Cloths, Coatings, Trouserings, &c. (114)

ROSS & DUNCAN, *Abercorn Thread Factory, Abercorn Street, Paisley*.—Cotton Thread on Spools. (206)

SCARBOROUGH, BROTHERS, *Trafalgar Works, Halifax, Yorkshire*.—Fancy Dress Goods, &c.; Worsted Coatings, Dress and Furniture Damasks, Repps, &c.; Coloured Worsted Wefts and Knitting Yarns. (115)

MITCHELL, BROTHERS, *Albert Carpet Works, Waterfoot, near Manchester*.—Felt Carpets, without seams. (116)

HOOVER, C., & COMPANY, *Eastington Mills, near Stroud, Gloucestershire*.—West of England Superfine Broadcloths, Military and Hunting Cloths, Doeskins, Cassimeres and other Trouserings, Carriage Lining and Livery Cloths, Beavers, Meltons, Venetian, Kerseys, &c. (117)

LEES, R., *Lime Place, Galashiels*.—Tweeds. (772)

JONES, PRYCE, *Newtown, Montgomeryshire*.—Welsh Flannels, Shawls, Handkerchiefs, Yarns, Friezes, Cloaks, and Petticoats; Specimens of Welsh Needlework. (118)

HITCHCOCK, WILLIAMS, & COMPANY, 71 to 74, *St. Paul's Churchyard, London*.—Woollen Goods; Ladies' Costumes, &c. (119)

KERR, SCOTT & SON, 8, *Cannon Street, London*.—Shawls, Fancy Fabrics, and Travelling Rugs. (121)

NEAVE, S., & SONS, 7, *Pal Street, Manchester*.—Wools washed and carded, prepared for felt hat making, &c., dyed and undyed. Vicuna, similarly prepared. (122)

WILLANS, THOS. B., 19, *Lawrence Lane, London, and Vale Mills, Rochdale*.—Flannels, plain, fancy, coloured; Twilled Flannel for cricketing dresses; Fancy Woven, and Fancy Printed Flannels. (123)

SMYTH & COMPANY, *Balbriggan, Ireland, and 36 and 37, Lower Abbey Street, Dublin*.—Hosiery known as Balbriggan Hose. (289a)

BEHRENS, LOUIS, 41, *Portland Street, Manchester*.—Cotton Velvets, Patent Silk-finished Velvets, Velvettas, and Velveteens, black and coloured. [Rotunda.] (322)

PEEL, BROTHERS, & COMPANY, *Bradford*.—Woollen Materials and Mixed Fabrics for Ladies' Dresses. [Rotunda.] (617)

CLARK & COMPANY, *Anchor Thread Works, Paisley*.—Cotton Thread for Hand and Machine Sewing; Crochet, Tatting and Embroidery Cotton. (144)

(See also Group XIII.)

WARBURG & COMPANY, 9, *Lloyd Street, Manchester*.—Cotton Fabrics; Velvets, black and coloured; Mohair Cloth, and Sleeve Linings. (125)

KESSELMAYER, W. & C., 1, *Peter Street, Manchester*.—Cotton Velvets and Velveteens, superfine and improved, plain and twilled back, in black, colours, and printed, embossed, and embroidered; Silk Face Velvets, in black and colours. (126)

HORROCKSES, MILLER & COMPANY, 9, *Bread Street, Cheapside, London—Manchester, Preston, Lancashire*.—Longcloths, Calicoes, Twills, Shirtings, Plain and Twilled Sheetings. (127)

JOHNSON, JABEZ, & FILDES, 44, *Spring Gardens, Manchester*.—Toilet, Marseilles, and Alhambra Quilts, Counterpanes, Toilet Covers, Quiltings, Dimities, Damasks, Skirts, Velvets, Linens, Towels, Perched Toilettings, Printed Cretonnes and Muslins. (See Appendix.) (715)

WATERS, J. & E., & COMPANY, *Talbot Mills, Ellesmere Street, Hulme, Manchester*.—Sewing Cottons; Cotton, Worsted, and Mohair Braids; Cotton and Worsted Smallwares. [Rotunda.] (129)

(See Appendix.)

BROOK, JONAS, & BROTHERS, *Meltham Mills, Huddersfield*.—Patent Glacé and Six Cord Sewing Cotton for hand and machine work, white and coloured; Crochet and Embroidery Cotton. (130)

(See Appendix.)

CARLILE, J., SONS & COMPANY, *Bank End Mills, Paisley*.—Sewing, Crochet and Embroidery Cotton. (131)

CLARK, J., & COMPANY, "*Paisley Thread Works*," *Paisley*.—Sewing Threads and Cottons of various descriptions. (132)

DEWHURST, JOHN, & SONS, *Belle Vue Mills, Skipton*.—Sewing Cotton, in white, black, and colours, with specimens in the various stages of manufacture from raw Sea-island and Egyptian Cotton. (133)

COATS, J. & P., *Ferguslie Thread Works, Paisley*.—Cotton Thread, white, black, and coloured, for hand and machine work; Extra Glacé Thread for machine use; Crochet Cotton, and Shoemakers' Thread. (134)

(See Appendix.)

EVANS, WALTER, & COMPANY, *Derby*.—Sewing, Knitting, Tatting, Crochet, Embroidering, and Machine Cottons; Glacé Thread. (135)

ASHTON & COMPANY, 45, *Chorlton Street, Manchester*.—Cotton Goods, dyed and printed; Velvets, Fustians, Linings, Cords, and Beaverteens; Satins, Shirtings, Twilled Silecia, Serges, and Cambrics, dyed and printed. (136)

BOWMAN BROTHERS, *Halifax, Yorkshire*.—Cotton Yarns, illustrating processes of carding, combing, spinning, doubling, &c. (137)

ARMITAGE, SIR ELKANAH, & SONS, 48, *Moseley Street, Manchester*.—Cotton Duck for sail cloth, Rubber Belting, Hose, and American Leather Cloth; Cotton Fabrics made of dyed yarns, for dress goods and other garments. (138)

CLARKE, I. P., & COMPANY, *King Street Mills, and Branch Mills, Leicester*.—Cotton Thread for sewing machines and for hand sewing. (139a)

ERMEN & ENGELS, *Manchester*.—Cotton Thread, white and coloured, for

Sewing, Crochet, Knitting, and Mending, and Cotton on spools, cards, and in balls. (140)

KERR, PRICE & COMPANY, *Underwood and Oakshaw Mills, Paisley*.—Cotton Thread for hand and machine sewing. (479)

(See also Group XIII.)

OGDEN, T., & COMPANY, *Werneth Iron Works, Lees Hall, and Busk Mills, Oldham*.—Fishing Nets, Fishing Net Twines; Cable, Heald Yarns, Crochet, Sewing and Knitting Cottons; Carpet Yarns, Cotton Banding, Cloth in natural state, with Doll dressed in the same; Cotton in its various stages, from the bale to the Spinning Jenny. (141)

DICKINS & COMPANY, 8, *Marsden Street, Manchester; Works, Middleton*.—Dyed and Polished Cotton Yarns: Sewings, &c. (shown in Case No. 141). (141*)

SWAINSON, BIRLEY & COMPANY, *Preston*.—Cotton Long Cloths, 36-inches wide; Heavy Shirting Cloths, 33 and 36 inches wide. (805)

ASHWORTH, E., & SONS, *Egerton Mills, Bolton*.—Cotton, raw, and illustrating the process of manufacture; Yarns, grey, bleached, and dyed; Polished Yarns; Sewing, Embroidery, and other Cotton. (773)

DICKSONS, FERGUSON & COMPANY, *Linen Hall Street, Belfast*.—Linens, unbleached, bleached, and printed; Drills, Hollands, Sheetings, Towels, Dress Linens, Cambrics, Handkerchiefs, Diapers and Damasks. (142)

AINSWORTH, T., *Cleator, Carnforth*.—Linen Threads and Linen Towels. (143)

(See Appendix.)

JAFFÉ, BROTHERS, *Warehouses, Belfast and Dundee; Works, Lurgan and Banford*.—Linens—Brown, White, and Printed; Cambric Handkerchiefs—White and Printed; Linen Yarns; Jute Fabrics and Sacks. (144a)

FENTON, SON, & COMPANY, and FENTON, S. G., & COMPANY, *Linen Hall, Belfast*.—Linen Yarns, bleached and unbleached; Linens, Fronting, Medium and Heavy Family Linen; Drills, Damasks, Linen and Cambric Handkerchiefs, and Diapers. (145)

PEGLER, C., JUNIOR, & COMPANY, 58, *Briggate, Leeds*.—Linens and Damask Table Linen. (146)

MOORE & WEINBERG, *Belfast, Ireland, and Dundee, Scotland*.—Flax, Hemp, and Jute Yarns; Linens; Linen and Cambric Handkerchiefs, bleached, dyed, tinted, and printed; Damask Table Linen; Jute Carpets, Sacking, &c.; Wool-packs; Cotton, Guano, Grain, Flour, and Sugar Bags; Shoe and Tailors' Threads. (147)

BARBOUR, W., & SONS, *Hilden Flax Mills, Lisburn, Ireland*.—Linen Thread for Shoemaking and for Cloth, for machine as well as hand work. (148)

BETZOLD, GEORGE, & COMPANY, *Belfast, Ireland*.—Linen Fabrics, white and printed; Linen and Cambric Handkerchiefs, white and printed; Hemstitched Handkerchiefs, white, printed and embroidered. (149)

BRUCE & COMPANY, *South Shields*.—Sailcloth. (151)

BARROW FLAX & JUTE COMPANY (LIMITED), *Barrow-in-Furness, Lancashire*.—Jute Yarns, Jute Sackings, Baggings, and Hessians; Sacks, Bags, and Packs. (152)

MARSHALL & COMPANY, *Leeds, and Shrewsbury*.—Linen Threads and Sewing Machine Threads. (153)

GOLDSCHMIDT & SIPMAN, *Nottingham*.—Raw Silks; Organzines; Grenadines, and Trams. (154)

EVANS, D., & COMPANY, 1, *Wood Street, Cheapside, London*.—Printed Silk Handkerchiefs; Chinese Silks made under the exhibitors' direction; English manufactured Silks. (155)

SALOMONS, L., & COMPANY, 9, *Friday Street, London*.—Spun Silk, dyed and undyed; Black dyed Cordonnet for Fez Tassels, Fringes, &c.; China Thrown Silk; Straw Plait, and Finished Articles. (156)

(See Appendix.)

JACKSON, J. & F., *Sutton Mills, Macclesfield*.—Silk Scarfs, Mufflers, Surats, and Handkerchiefs. (157)

PATTERSON, WILLIAM, & SONS, *Nottingham*.—Thrown Silks—China and Bengal Organzine and Tram, Cordonnets and Cords for the manufacture of Machine-made Lace; Grenadines made of Bengal Silk. (158)

MACCLESFIELD CHAMBER OF COMMERCE.—Trophy of Silks, comprising the following 9 entries:— (159) [Rotunda.]

BROCKLEHURST & SONS, *Macclesfield*.—Thrown Silk; Patent Spun Silk Yarns; Silk Handkerchiefs, Scarfs, Mufflers; Silk Terrée, Shirting, Dresses, and Sashes. (159a)

POTTS, WRIGHT & COMPANY, *Macclesfield*.—Silk—China, Tram, and Organzine; Silk and Sarcenet Goods; China Twills, &c. (159b)

CRITCHLEY, BRINSLEY & COMPANY, *Macclesfield*.—Ladies' and Gentlemen's Silk Goods—Cravats; Squares, &c., for the neck; Handkerchiefs; Pugarees &c. (159c)

CORNES, W. W., & COMPANY, *Macclesfield*.—Dress Silks, Glacé Silks, Cut-up Cloths, Mufflers, Sashes, Scarfs, and Ties; Silk Shawls, Handkerchiefs, &c. (159d)

PEARSON, SAMUEL, & COMPANY, *Macclesfield*.—Thrown Silk and Silk Fabrics. (159e)

MELLOR, JAMES, 7, *Chestergate Street, Macclesfield*, and 16, *Dale Street, Manchester*.—Silk Neckties and Scarfs. (159f)

SMALE, JOSIAH, & SON, *Macclesfield*.—Pure Silk and Mixed Goods; Poplins, Scarfs, Sashes, &c.; Machine and Hand Sewing and Embroidery Silks. (159g)

NICHOLSON, J. O., *Macclesfield*.—Silk Scarfs and Neckerchiefs; Pocket-handkerchiefs; Plain, Figured, and Brocaded Silks; Silk and Spun Silk Mufflers; Silk Sashes Brocaded; Damascene and Roman Mogadore. (159h)

SMALE, WILLIAM, *Macclesfield*.—Silk Scarfs, Ties, Handkerchiefs, Sarcenet Linings. (159i)

RICKARDS, C. A., *Bell Busk Mills, near Leeds*.—Sewing Silks for Hand and Machine use, pure and unweighted; Embroidery and Knitting Silks, Buttonhole Machine Twists, and Machine Silk Twists. (160)

PIM BROTHERS & COMPANY, *Dublin*.—Irish Poplins—plain, single, double, brocaded, checked, figured, terry, satin-striped, tartan plaid, and watered; Silk Brocatelles and Terrys for Curtains, Furnishing and Upholstery purposes. (161)

(See Appendix.)

ATKINSON, R., & COMPANY, 31, *College Street, Dublin*.—Irish Poplins, specimen of Tissued Poplin brocaded in gold and colours with the Austrian Imperial Eagle, crown and monogram of their Majesties the Emperor and Empress of Austria; double, terrie, plain, ribbed, plaid check, figured, and brocaded poplins. (162)

(See Appendix.)

HADWEN, JOHN, & SONS, *Kelroyd Mills, Halifax, Yorkshire*.—Silk and Silk Yarns; Waste Silk in the raw state; Yarns spun from waste silk. (164)

CARINGTON, THE LADY, 8, *Whitehall Yard, London*.—Folding Screen of Guipure Lace in coloured Silks, worked by the needle and *appliqué* on White Satin; the pattern taken from an old Venetian velvet. Colours arranged and work executed by the exhibitor. Screen with Leaves, designed and worked by the exhibitor. (165)

STADE, H. & L., 13, *Darley Street, Bradford*.—Lace Handkerchiefs, original designs, worked by hand. (166)

JACOBY, MORITZ, & COMPANY, *Stoney Street, Nottingham*.—Patent Valenciennes and other Lace; Curtains, Bedcovers, Shawls, Veils, Scarfs; Silk Guipure Nets; Shetland Wool Shawls, &c. [Rotunda.] (167)

(See Appendix.)

SIMON, MAY & COMPANY, *Nottingham*.—Lace, Curtains, Plain and Fancy Nets, Shetland Shawls, and Vitrages. (168)

(See also Group VI.)

SMITH, G. J., 16, *St. Aubyn's Road, Upper Norwood, London*.—Irish Laces of all descriptions. (169)

LESTER, C. & T., *High Street, Bedford*.—Hand-made Lace, Italian Point Flounces, &c.; Maltese Coifs, Handkerchiefs, Lappets, and Fancy Collars. (170)

COPESTAKE, MOORE, CRAMPTON & COMPANY, *Bow Churchyard, London, and Nottingham*.—Lace Curtains, Shawls, and Dresses; Imitation Valenciennes Lace; White and Black Silk Lace; Cotton Lace. [Rotunda.] (163)

POSSELT, PETERS & COMPANY, *City Road Mills, Derby, and Laxton Street Works, Leicester*.—Elastic Webs for Boots; Elastic Belts, Garters; Thrown Silk and Woven Webs. (171)

WELCH, MARGETSON & COMPANY, 16 & 17, *Cheapside, London*.—Shirts and Collars; Fancy, Woollen, and Cotton Shirtings; Neckties, Mufflers, Silk Scarfs, Silk and Cambric Pocket Handkerchiefs, Braces, Rugs, and Umbrellas. (172)

(See Appendix.)

SLATER, BUCKINGHAM & COMPANY.—35 and 36, *Wood Street, Cheapside, London*.—Silk Scarfs and Cravats; Umbrellas. (173)

WOODHAMS, MACQUEEN & JOHNSON, *Hope's Carr, Stockport*.—Felt Hats; Silk Hats. (174)

MITCHELL, JAMES, & COMPANY, *Tweed Place Mills, Galashiels, Scotland*.—Scotch Tweeds, Worsted Coatings and Trowserings, Cheviots, Japanese Coatings, Patent Yarn Tweeds, Scotch Shepherd Trowsering and Argyle Trowserings. (176)

NICOLL, D., & COMPANY, 58 and 59, *Paternoster Row, London*.—Woollens—Coatings, Tweeds, Frieze, Angola and Llama Cloths; Pilots, Beavers, Diagonals, Worsted Goods, Imitation Furs; Sanitary Cloths, impervious to rain but not to perspiration; Hydropellis Cloth for very cold countries. (161a)

(See also Group III.)

LOBB, JOHN, 296, *Regent Street, London*.—Boots and Shoes for Ladies and Gentlemen. (177)

NORMAN, S. W., 116, *Westminster Bridge Road, London*.—Boots and Shoes—court, dress and walking, for ladies and gentlemen; Cork-soled and "Surgical" Boots. (547)

(See also Group XIII.)

VYSE, SONS, & COMPANY, 76, *Wood Street, London; Luton, Bedfordshire; St. Albans, Herts; Paris; and Prato, Italy*.—Straw, Chip, and Felt Hats and Bonnets. (178)

CHRISTY, J. E. & W., & COMPANY, 35, *Gracechurch Street, London*.—Hats, Caps, and Helmets, in Felt, Silk, &c.; Hatmakers' materials and goods in various stages of manufacture. (180)

APPLEYARD, HENRY, 36, *Lower Sackville Street Dublin*.—Balbriggan Hose for Ladies; Embroidered and "Peculiar Lace;" one Pair exhibited only weighs half an ounce. (181)

MORLEY, J. & R., 18, *Wood Street, Cheapside, London, and Fletcher Gate, Nottingham*.—HOSIERY—Stockings, Socks, and Underclothing in Cotton, Wool, and Silk. (182)

LLOYD, ATTREE & SMITH, 32, *Wood Street, Cheapside, London*.—Silk Cravats and Scarfs, Linen Collars and Wristbands. (183)

(See Appendix.)

CUMBERLAND, ROBERT, 3 *Rue Scribe, Paris*.—Riding Habits; Hunting Coats; Driving Capes; Hunting and Racing Breeches; Racing Jackets and Caps. (184)

LICHTSCHEINDE & COMPANY, 10, *Upper Weymouth Street, London*.—Patent Twin Spring Mattresses; Hair and Wool Mattresses. (185)

(See also Group VII.)

PAVY'S PATENT FELTED FABRIC COMPANY, 13 to 15, *Hamsell Street, Falcon Square, London*.—Felted Fabric for Window Curtains, Bed Hangings, Blinds, Wall Hangings, Bookbinding, Bed Quilts, and in Imitation of Leather. (187)

TAPLING, THOMAS, & COMPANY, 1 to 8 *Gresham Street West, London, and Glasgow*.—Tapestry for Ecclesiastical Wall Decorations, 40 feet by 15 feet, and Axminster Carpets for Saloons, each woven in one piece, by machinery. (188)

(See Appendix.)

TEMPLETON, JAMES, & COMPANY, *Glasgow, and 77, Newgate Street, London*.—Patent Axminster Carpets and Hearth Rugs. (189)

(See Appendix.)

TEMPLETON, J. & J. S., *Glasgow, and 77, Newgate Street, London*.—Wilton and Brussels Carpets, Portières, and Window Curtains. (190)

(See Appendix.)

WOODWARD, GROSVENOR & COMPANY, *Stour Vale Mills, Kidderminster*.—Brussels and Velvet Pile Carpets. (191)

(See Appendix.)

LEWIS, JOHN, *Halifax, Yorkshire, and 78, Watling Street, London*.—Carpets: Royal Wilton, Anglo-Indian, Axminster; Rugs; Real Indian Carpets and Rugs; Turkey Carpets. (192)

BRINTON, JOHN, & COMPANY, *Kidderminster*.—Wilton Carpets and Rugs. (193)

COOKE, SONS & LAW, 12, *Friday Street, London; Liversedge, Yorkshire; and Hadleigh, Suffolk*.—Carpets—Velvet Pile, Brussels, Tapestry, Kidderminster, Felt, Venetian, and Dutch; Rugs, Cocoa Matting, and Mats. (194)

MORTON & SONS, *Kidderminster*.—Carpets. (195)

WIDNELL, HENRY, & COMPANY, *Lasswade, Edinburgh*.—Tapestry Carpets; Velvet Table Covers, and Sofa Carpets. (196)

CORBIÈRE, E., & SON, 30, *Cannon Street, London*.—Cretonne Prints, Cotton Satins, Plain Cotton Satins, Tapestries, Silk Poplins. (197)

LYLE, J., & COMPANY, 10, *Forneuk Street, Glasgow*.—Patent Axminster Carpeting and Rugs, Sofa Carpets, Church Mats, and Brussels Carpeting. (198)

GOWER, WOODWARD & COMPANY, *Kidderminster*.—Carpets and Rugs; Hohenzollern Carpets, a new variety; Brussels and Velvet Carpets, woven without seams. (199)

WATSON, BONTOR, & COMPANY, 35 and 36, *Old Bond Street, London*.—Carpets—Turkey, Persian, and Velvet Pile. (200)

HENDERSON & COMPANY, *Durham*.—Velvet, Scotch, and Venetian Carpets. (201)

HUMPHRIES, JAMES, & SONS, *Kidderminster, & 3 King Edward Street, Newgate Street, London*.—Wilton Carpets. (202)

LAPWORTH BROTHERS, 22, *Old Bond Street, London*.—Real Indian Carpets and Rugs. 69)

TOMKINSON & ADAM,
Kidderminster.—Carpets woven in one piece,
without seam. (120)

LAYBOURN, W. J., 60, *St. John's
Street, West Smithfield, London*.—Ostrich
Feathers. (800)

HARVEY, J., *Kidderminster*.—De-
sign for Carpet. (265)

DEED, J. S., & SONS 451, *Oxford
Street, London*.—Cocoa Fibre Mats. (222)

(See also Group VI.)

ANDRADÉ, DE COSTA, & COM-
PANY, 7, *Cripplegate, London*.—Feathers
for Ornament. (740*)

(See also Additional Exhibitions.)

EATON, H. W., & SONS, 33, *Old
Broad Street, London*.—Silk, raw, thrown,
spun, and waste. (740*)

(See also Group II. and Additional Exhibitions.)

TURNER, ARCHIBALD, & COM-
PANY, *Bow Bridge Works, Leicester*.—
Elastic Fabrics; Boot-gusset Webs; Cotton
and Silk Frills; French Webs; Pocket
Book and Porte-monnaie Webs; Surgical
Webs; Cords and Braids in Silk, Lustres,
Cotton, Mohair, &c. (776)

(See Appendix.)

GROUP VI.

Leather and India-Rubber Industry.

LEATHER, ARTICLES OF LEATHER, HARNESS, SADDLES, TRUNKS, AND OTHER LEATHER GOODS (excluding Clothing and Fancy Goods); PARCHMENT AND GOLDBEATERS' SKIN. SKINS AND FURS, INDIA-RUBBER AND GUTTA PERCHA ARTICLES (excluding Philosophical and Mechanical Instruments, and parts of Machinery), WATER-PROOF STUFFS AND CLOTHS. PROCESSES AND INVENTIONS USED IN THE PRODUCTION OF THESE MANUFACTURES. STATISTICS OF PRODUCTION.

LENNAN, W., & SON, 29 to 31,
Dawson Street, Dublin.—Carriage Harness,
Saddles for Ladies and Gentlemen, Hunting
Saddles, Racing Saddles, Safety Driving
Reins, Stirrups, Muzzles; Noseband, anti-
pulling, and other bridles. (207)

ELLAM, B., 213, *Piccadilly, London*.
—Saddlery, Harness, Whips, &c. (208)

WEBB & SON, *Combs Tannery,
Stowmarket*.—Leather, and Articles made of
Leather. (209)

(See also Group XIII.)

COLTMAN WILLIAM, 22, *Prome-
nade Villas, Cheltenham*.—Improved Ladies'
Portmanteaus. (210)

SWAINE & ADENEY, 185, *Picca-
dilly, London*.—Saddlery and Sporting Ap-
paratus. (211)

(See also Group X.)

RABBITS, W., *St. Thomas's Works,
White's Ground, Bermondsey, London*.—Boot
and Shoe Upper Leathers. (212)

HUXHAMS & BROWN, *Commer-
cial Road, Exeter*.—Ground Bark, Valonia,
and Myrabolans for tanners and leather
dressers. (213)

(See also Group XIII.)

DIXON, JOHN, & SON, *Manning
Street, Bermondsey, London*.—Enamelled and
Japanned Hides, Split Hides, and Splits.
(214)

NEWTON, GOUGH & COMPANY, *Manchester*.—Leather—English tanned for Boot and Shoe Soles and Inner Soles; English curried for Upper Leathers of Boots and Shoes; English tanned Walrus Hide. (215)

(See also Group XIII.)

EVANS, P. & S., & COMPANY, *Avonside Tannery, Bristol*.—British Army Sole Leather; Engine Backs for Colliery Pumps, &c.; Ordinary Sole Leather; Hippopotamus Leather, and Foreign Bellies. (216)

SCHLETTER & COMPANY, *Birmingham*.—Saddlery, Harness, and general Leather Goods; Saddlers' Ironmongery and Whips; Leather Cloth and Floor Cloth; India Rubber Goods. (217)

(See also Group VII. and X.)

BRACE, H., & COMPANY, (Limited), 3, *Bridge Street, Walsall*.—Leather, Saddlery, Harness; Webs and Woollen Goods for Saddlery; Whips, Bits, Spurs, Stirrups; Horse and Carriage Brushes. (218)

MIDDLEMORE, W., *Holloway Road, Birmingham*.—Saddlery, Harness, and Leather Goods; English Hunting Saddle, and Indian Riding Saddle, on patent spring seats; Australian and South American Saddles; Side Saddles with spring seat; Racing Saddle; Cape of Good Hope Saddle, with patent iron tree; Machine-made Harness for Europe, the Colonies, &c.; Travelling necessities; Hogskins and Enamelled Hides. (219)

(See also Group XIII.)

TANNED LEATHER COMPANY, *Armley Works, Greenfield, near Manchester*.—Leather prepared for making mill bands, straps, &c., for shoe soles and tops; Tanned Hides for various purposes for carriers. (220)

ECROYD, W., & SON, *Tyer's Gate-way, Bermondsey, London*.—Morocco Leather for Bookbinding, Furniture Covering, and Coach Fitting. Goat Skins in "crust" ready for dyeing. (221)

DREW, JOHN, 33, *Regent Street, London*.—Trunks and Portmanteaus in solid Leather; Military Camp and Travelling Equipages—an officer's room fitted up as in England; Patent Square-mouthed "Bags," with or without Dressing Case Fittings; Dressing Case Portmanteaus; Patent Railway Companion Table, including card and chess table, luncheon case, writing materials, dressing case fittings, and railway lamp, with space for a hat, the whole not exceeding the size of a square hat box, and will go under the seat of the carriage. (750)

(See also Group VIII.)

CHRISTIE, WILLIAM, *Walsall and London*.—Saddles for hunting, park, racing &c.; Colonial Saddles; Military Saddles, Ladies' Saddles; Pads, Pilches, and Chairs for Children; Saddle Trees, &c. (321a)

DEED, J. S., & SONS, 451, *Oxford Street, London*.—Skins, Mats, and Rugs; Morocco and other Leather. (222)

(See also Group V.)

CLARK, SON & MORLAND, *Glastonbury*.—Sheep and Angora Skins dressed and dyed for hearth, door and carriage rugs, Chamois Leather, Leather Leggings, and Wool-lined Slippers. (223)

BIRNBAUM, B., 21, *New Broad Street, London*.—India-rubber Clothing—Coats, Capes, Aprons, Rugs, Leggings; Waterproof Cloth of all descriptions. (225)

INDIA RUBBER, GUTTA PERCHA, & TELEGRAPH WORKS, COMPANY, (LIMITED), *Silvertown, Essex, and 100, Cannon Street, London*.—India Rubber and Gutta Percha Manufactures; Submarine and Torpedo Telegraph Cable; Insulated Telegraph Wires. (775)

(See also Group XIV.)

LEATHER CLOTH COMPANY, 4, *Cannon Street, London*.—Crockett's Leather Cloth—Muslins, Drills, Ducks, Moleskins; double japanned and printed Table Covers. (226)

DAFT, T. B., C.E., *Failsworth, near Manchester*.—Elastic Fabrics, with model of the machinery used in making the web. (227)

WARNE, WM., & COMPANY, 9, *Gresham Street West, London*.—India-rubber Manufactures—Air-proof Articles; Magnetic Cut India-rubber thread in warps for elastic webs; waterproof cloths, and garments, surgical, mechanical, veterinary, and domestic appliances, tobacco pouches, and jars; Solid India-rubber Tubing and Suction and Delivery Hose of India-rubber and Canvas combined. Emery Wheels for grinding, polishing, &c. (228)

LEE, H. N. & E., 27, *Walling Street, and 138, High Holborn, London*.—India-rubber Garments and Fabrics; Beds, Cushions, Surgical and Domestic Appliances. (229)

HEMBRY, B., & COMPANY, 91, *Newgate Street, London*.—Linoleum Floor Cloth, Billiard Mats, Toilet and Bath Mats, Stair Cloth, and Borders; Linoleum Cement. (In use in the Hall of the Royal British Commission.) (230)

HARRY, W. D., & Co., *Lower Road, Deptford, Kent*.—Kamptulicon Floor Cloths, Knife Boards, and Toilet Mats. (231)

UNITE, JOHN, 291, *Edgware Road, London*.—Marquee, waterproof, 30 ft. by 15 ft.; Square Garden Tent, Alpine Tent, Emigrant's Tent; Models of Tents, Marquees, and Rick Cloths; Samples of small white and tarred Hemp Rope and Twine; Trophy of Bunting Flags. (232)

(See also Group XVI.)

EDGINGTON, JOHN, & COMPANY, 48, *Long Lane, Smithfield, London*.—Hospital Tent for collection of Military Equipment and Sanitary Appliances; Lawn Tent, on the Umbrella principle, called "Ritchie's Patent Tent." (233)

(See also Group XVI.)

SIMON, MAY & COMPANY, *Nottingham*.—Elastic Web Fabrics. (168)

(See also Group V.)

NORTH BRITISH RUBBER COMPANY (Limited), *Castle Mills, Fountain Bridge, Edinburgh*.—India Rubber Goods. (235)

GROUP VII.

Metal Industry.

GOLDSMITHS' AND SILVERSMITHS' WORK, AND JEWELLERY, &c. IRON AND STEEL WARES (excluding Machinery, Building Materials, Philosophical and Musical Instruments). MANUFACTURES FROM OTHER METALS AND ALLOYS. WEAPONS OF EVERY DESCRIPTION, except Military Arms. PROCESSES AND INVENTIONS USED IN THE PRODUCTION OF THESE MANUFACTURES. STATISTICS OF PRODUCTION

HANCOCKS & COMPANY, 38 and 39, *Bruton Street, London*.—Diamonds and Pearls; Jewellery; Gold and Silver-smiths' Work; Electro-Plated Goods. (240)

ELKINGTON & COMPANY, *Birmingham*.—Silver Plate; Electro-gilt Plate; Bronze and Enamelled Works; Plated Goods; Bronzes, cast and electro-deposited; Artistic objects in all metals. (241)

THOMAS, W. J., 28, *Old Bond Street, London*.—Jewellery, Silver Plate, Precious Stones, Watches. (242)

AITCHISON, JAMES, 23, *Princes Street, Edinburgh*.—Gold and Silver Jewellery; Highland Ornaments set with Scotch Pearls, Pebbles, Cairngorm, &c. (243)

DAVIS, G., SON & COMPANY, 37, 37½, & 38, *Sun Street West, Birmingham*.—Whip Handles; Umbrella and Walking Stick Mounts and Handles; Whip Sticks, Whip Thongs, and Materials used in the making of Whips. (244)

GOGGIN, JEREMIAH, 74, *Grafton Street, Dublin*.—Bog Oak; Albums, Writing Desks, Dressing Cases, &c.; Celtic Ornaments for personal wear, set with gems. (245)

WHITELEY, WILLIAM, 31 to 49, *Westbourne Grove, London*.—Black Glass Ornaments—Coronets, Aigrettes, Brooches, Bracelets, Combs, Chatelaines, Earrings, Buckles, Necklets, &c. (246)

FRANCHI, G., & COMPANY, 15, *Myddleton Street, Clerkenwell, London*.—Electrotype Plate; Reproductions of Works of Art, &c. (247)

BETJEMANN, G., & SONS, 36 and 38, *Pentonville Road, London*.—Caskets, Candelabra. (808)

(See also Group VIII.)

NEAL, JOHN, 44, 46 and 48, *Edgware Road, London*.—Pyro-silver Cutlery. (324a)

TAYLOR BROTHERS, *Adelaide Works, Sheffield*.—Circular Saw, 7 ft. 2½ in. in diameter, best cast steel, perforated, hardened and tempered, and ground by patented machinery. (248)

JOHNSON, RICHARD, & NEPHEW, 27, *Dale Street, Manchester*.—Wire Rods; a Weldless Wire Rod, 1,770 yards long; Galvanized Telegraphic Wire. (249)

JOHNSON, RICHARD, CLAPHAM & MORRIS, 27, *Dale Street, Manchester*.—Iron, Copper, and Brass Cloth; Wire Netting; Cloth for Paper-making and other Wirework; fine Copper and Brass Wire. (249*)

MILWARD, J. F., 160, *Great Hampton Row, Birmingham*.—Awl Blades; Sewing Machine Turnscraws; Harness Makers' Awls. (777)

FUSSELL, JAMES, SONS, & COMPANY, *Mells Iron Works, near Frome, Somersetshire*.—Agricultural Edge Tools, such as Hay, Chaff, Engine and Machine, and Thatchers' Knives; Bagging, Bean, Brushing, Eaves, Hewing, Reaping, and Furze Hooks; Scythes, Patent Adjusting Scythe Snead. (250)

LEONARDT, D., & COMPANY, 69, *George Street, Parade, Birmingham*.—Gold Pens, Pencilcases, Penholders, and Steel Pens. (251)

YATES, HAYWOOD & COMPANY, 95, *Upper Thames Street, London, and Effingham Works, Rotherham*.—Stable Fittings in Iron; Stoves, Fenders, and Fire Irons. (252)

SMITH, ROBERT, & COMPANY, *Porter Works, Sharrow Vale, Sheffield*.—Crucible Cast Steel; Steel for Tools, Taps and Dies, Drills, Spindles, and Sewing Machines; Cast Sheet Steel, Bessemer Steel, Cold Rolled Steel; Spindles; Cast Steel Hammers and Files; Cast Steel in ingots. (253)

MILWARD, H. & SONS, *Redditch, Worcestershire*.—Needles, Fish-hooks, Sewing Machine Needles, Fishing Tackle, Crochet-hooks, and Fancy Goods. (254)

BUDDE, C., & COMPANY (LIMITED), *Birmingham*.—Sheet Iron, Iron Wire, and Tubing; Hoop Iron, Tin Plates, Bar, Angle, and Channel Iron. (255)

BRANDAUER, C., 401, *New John-street West, Birmingham*.—Pens and Penholders. (266a)

COLLINGS & WALLIS, *King Edward's Road, Birmingham*.—Wrought Iron Chains, Anvils, Nails, Spades and Shovels; Steel Spades and Shovels, Edged and other Tools, Cutlery, Files, Rasps, Corkscrews, and Steel Toys; Cast Iron Umbrella Stands, Iron Fenders and Fire Irons; Cast Steel Axles, Hay, Dung, and Digging Forks; Portable Forge; Brass-foundry. (257)

(See also Group X.)

BROWN & COMPANY, *The Wednesbury Tube Works, Wednesbury*.—Boiler Tubes of Charcoal Iron; Staffordshire and Yorkshire Iron, Steel, and Howell's Homogeneous Metal; Gas Tubes and Fittings; Steam and Water Tubes and Fittings; Hydraulic Tubes; Artesian Well Boring Tubes; Taper Telegraph Posts; Heating and Condensing Coils; Roller Tubes; Loom Beams, &c. (258)

(See Appendix.)

WOODFIELD, W., & SONS, *Easemore Works, Redditch*.—Needles for Hand and Machine Sewing; Fish Hooks. (259)

CLARKE, EDWARD, *Patent Crank Works, Lincoln*.—Crank for Engines, Thrashing Machines, Pumps, Looms, Ships' Winches, &c., bent out of round bars by patent hydraulic machinery. (376)

BENHAM & SONS, 50, 52, and 54, *Wigmore Street, London*.—Stoves, Fenders, Fire Irons, Papier-Mâché and Japanned Ware; Lavatory Table, Water Closet, Ventilating Gas Lamps; Electro-plated Goods; Pneumatic Bell Apparatus. (261)

(See also Group IX.)

CLARK, WILLIAM, 232, *Oxford Street, London*.—Horse Clippers, worked by hand or other power. (778)

SMITH, JOHN WRIGHT, 121, *Belgrave Gate, Leicester*.—Self-Acting Needles for the Manufacture of Hosiery. (779)

BROWN, JOHN, & COMPANY, (LIMITED), *Sheffield*.—Bessemer Steel Rails, Axles, and Tyres; Iron Axles and Tyres; Railway Waggon Springs and Buffers; Engine Springs; Iron Boiler Plates; Armour Plates, Bolts, and Screws; Shot. (794)

FIRTH, THOMAS, & SONS, *Norfolk Works, Sheffield*.—Homogeneous Steel Core, for 35-ton gun; Forgings of the same metal, for artillery, rifle barrels, &c.; Illustrations of Tensile Strain and Elongation of the Homogeneous Steel. (807)

KENYON, JOHN, & COMPANY,
Millsands, Sheffield.—Steel, Files, Saws, and
Edge Tools. (262)

(See Appendix.)

SHAW & FISHER, 43, *Suffolk Road,
Sheffield.*—Britannia Metal and Electro-Silver
Plate; Dinner, Tea, and Coffee Sets; Waiters;
Tea-Kettles; Lamp-Stands; Hot Water and
other Dishes; Soup Tureens, Cruet-Stands,
and other Table-Ware; Candlesticks, &c.
(263)

AVERY, W., & SON, *Redditch.*—
Needles, Needlecases and Pincases. (264)

WINFIELD, R. W., & COM-
PANY, *Birmingham.*—Brass and Copper
Tubes, Iron and Brass-cased Tubes, Brass
and Copper Wire, Sheets, Plates, Rods, and
Rolled Metal; Gas Chandeliers and Gas
Fittings for Lighting and Heating; Iron
Bedsteads; Brass and Copper Bedsteads
and Metallic Furniture; general Brass-
foundry. (266)

RUSSELL, JAMES, & SONS, *Crown
Tube Works, Wednesbury, and 3, Southwark
Street, London.*—Wrought-Iron Tubes;
Steam Boiler Tubes; Gas Tubes and Fit-
tings; Steam and Water Tubes; Iron
Telegraph-Poles; Hydraulic Press Tubes;
Pneumatic Buffer Tubes; Steam Fittings in
Gun-metal, Brass, and Plain and Galvanised
Iron; Stocks, Taps, and Dies for cutting
Tube Screws. (267)

PIGALL, FRANZ, 22, *Tichborne
Street, London.*—Cutlery, Knives, and Forks;
Pen, Pocket, and Hunting Knives; Razors,
Scissors, with flexible bows, &c. (268)

LEMPART, MAURICE, 150, *Leaden-
hall Street, London, and Sheffield.*—Cutlery.
(321b.)

HOBBS, HART & COMPANY,
76, *Cheapside, London.*—Locks made by

machinery; Permutating and Endless-
change Key Locks; Iron Safes, for use of
jewellers, &c.; Fire-resisting Safes. (269)

PATENT NUT & BOLT COM-
PANY (LIMITED), *Birmingham & West Brom-
wich, England; and Cwm Bran Works: Cwm
Bran Blast Furnaces, and Cwm Bran Collieries,
South Wales.*—Fish Bolts, Fishplates, Sole-
plates, Spikes, Fang Bolts, and all other kinds
of Railway Fastenings; every description of
Bolts and Nuts, Rivets, Set Screws, Coach
Screws, Washers, Telegraphic Ironwork,
&c.; Hand and Machine-made, in Steel,
Iron, Copper, Brass, and Yellow Metal,
black, bright, and galvanised, as used by
Engineers, Railway Companies, Telegraphic
Constructors, Contractors, Shipbuilders,
Carriage and Wagon Builders, and others.
(270)

(See Appendix.)

WILSON-HAWKSWORTH,
ELLISON & COMPANY, *Carlisle Works,
Sheffield.*—Steel; Steel Wire; Files; Rail-
way Springs; Hammers, &c. (271)

MOSER, H. & R. J., *New Road,
Wandsworth Road, London.*—Horse Nails of
all forms and sizes, made with the patent
machinery of Messrs. J. and J. A. Huggett.
(272)

BROADHEAD, R., & COMPANY,
Britannia Works, Sheffield.—Britannia Metal
and electro-plated Goods; Thompson's
Patent mounted Earthenware Jugs. (273)

MILNER, THOS., & SON, *Phoenix
Works, Liverpool.*—Fire-resisting and Hold-
fast Wrought-iron Safes, and Gunpowder
Magazines. (274)

BROOKES & CROOKES, *Atlantic
Works, Sheffield.*—Knives, Razors, Scissors,
and Dressing Case Instruments. (275)

MACDANIEL & COMPANY, 343,
Oxford Street, London.—Fine worked Steel
Cutlery; Ladies' Étuis; Razors; Hunting,
Pen, and Pocket Knives; Scissors; Table
Cutlery. (276)

BOWLING IRON COMPANY (LIMITED), *Bradford, Yorkshire*.—Iron and Steel—Boiler Plates; Steel and Iron Tires, Axles and Bar Iron; Steel Castings. Illustrations of proportions of Coal, Ironstone, and Limestone employed to produce the cube of iron shown. Drawings of Engines, and Photographs of the Works. (277)

COALBROOKDALE COMPANY, *Coalbrookdale, Shropshire*.—Grand Entrance in Mediæval style, consisting of a pair of Wrought Iron Gates, 2 Hand Gates, 4 Pillars, and short lengths of Railing to match, executed from designs by B. J. Talbert, Esq.; the enrichments are of cast iron, applied, and the twisted bars are produced by Tuddenham's patent process, with two lengths of Wrought and Cast Railing on either side. (The above enclose the space between the two North entrances to the British section). The Gates, Railings, Gas Pillars, &c., enclosing the house of the Royal British Commission, viz.:—The principal entrance of cast sheet fence and gates, terminated by 2 gas pillars; the 2 lengths improved cast palisade fence on either side; a length of cast sheet balcony railing on east side; the west entrance to the building of patent twisted angle bar fence and gates; a length of the same fence of various designs on west and north sides; a length of bracket railing on east side within the grounds. Various coats of arms and trophies in and about the house of Royal British Commission. Garden Chairs in grounds and park:—Osmunda Regalis, Water Plant, Mediæval, Midsummer Night's Dream, Nasturtium, Horse Chestnut, and Medallion. Vases in grounds and park:—Milton, Night and Morning, Classic, and Jardinière. Flower Stands in grounds and park, with shelves and dishes. Garden Rollers on improved principle (in Agricultural Hall). (278)

(See Appendix.)

SMITH, J. K., & COMPANY, 63, *St. Vincent Street, Glasgow*.—Galvanized and Corrugated Sheet Iron. (279)

KIRKSTALL FORGE COMPANY, *Leeds*.—Iron Wheels, Axles and

Tyres for railway carriages and other vehicles. Specimens of best Yorkshire Iron. (280)

(See also Group XIII. and Appendix.)

SPEAR & JACKSON, *Etna Works, Sheffield*.—Steel, Steel Forgings, &c.; Saws, Files, Edge Tools, Elastic Steel Agricultural and Horticultural Tools; Engineers', Smiths', Mining and Quarrying Tools. [Rotunda.] (281)

(See Appendix.)

CAMMELL, CHARLES, & COMPANY, *Cyclops Steel and Iron Works, Sheffield*.—Rolled Iron and Armour Plates and their fastenings; Steel Tires, Axles, Railway Springs, Rails, Castings, Screw Propellers, &c., and Steel in bars. (297)

BALDWIN, E. P. & W., *Wilden Works, near Stourport*.—Sheet Iron, Tin Plates, Button Iron, &c. (284)

(See Appendix.)

PERKINS, B., & SON, *Bell Court, and 141, Cannon Street, London*.—Baths of various kinds; Toilet Furniture; Tin, Iron Plate, and Japanned Wares; Fancy Dish Covers, Tea-Trays, Coal Vases, &c. (285)

FARROW & JACKSON, 18, *Great Tower Street and 8, Haymarket, London, and 23, Rue du Pont-Neuf, Paris*.—Wine Bins; Machines and Implements for the management of wines; Soda Water Apparatus; Beer Engines and Pumps; Knife Cleaners, and other domestic appliances; Grape-Crushing Machine. (286)

WARD & PAYNE, 114, *West Street, Sheffield*.—Sheep Shears and Edge Tools. (287)

WILLS, A. W., *Park Mills, Nechells, Birmingham*.—Edge Tools, Axes, Adzes, Hooks, Hoes, Spades, Shovels, Spuds, and Forks of solid cast-steel. (288)

(See Appendix.)

FEETHAM & COMPANY, 9, *Clifford Street, London*.—Stoves and Grates for burning coals and wood; Warm Air Ventilating Grates; Fire Dogs, Fenders, and Fire Irons; Fire Guards; Coal Boxes, &c.; Warm Air Fireplace for Exhibitors' Club

Room; Projecting Grate for H.R.H. the Prince of Wales's room; two Camp Cooking Stoves for Workmen's Kitchens. (289)

LICHTSCHEINDE & COMPANY, 10, *Upper Weymouth Street, London*.—Brass and Iron Bedsteads. (185)

(See also Group V.)

CHATWOOD, SAMUEL, *Lancashire Safe and Lock Works, Bolton, and 120, Cannon Street, London*.—Steel and Iron Safes, to resist fire and burglars; Iron Door for bankers' strong-rooms; Iron Deed Chests; Cast Steel Composite Coffers and Safes; Locks: Model of Patent Built-up Wall Safe, &c. (290)

(See Appendix.)

HAYES, CROSSLEY & COMPANY, 153, *Cheapside, London, and Alcester*.—Needles, called "double-pointed," that is, tapering both ways from the middle, in various stages of manufacture. (798)

PASCALL, ATKEY & SON, *Cowes, Isle of Wight*.—Cooking Range for a Yacht; Saloon or Hall Stove. (799)

BLEWS, WILLIAM, & SONS, *New Bartholomew Street, Birmingham, and West Bromwich*.—Chandeliers in metal and glass; Gas, Steam, and Water Fittings; Hydrants; Iron and Brass Tubes and Fittings; Church and other Bells; Weights of various standards; Water Closets and Fittings, &c. (802)

(See also Group XV.)

CLARK & COMPANY, *Rathbone Place, London, and 8, Kärnthnerstrasse, Vienna*.—Patent Self-coiling Shutters in one sheet of Steel; Self-coiling Wood Shutters lined with Steel Bands; Louvre Venetian Shutters. (803)

LANDORE SIEMENS STEEL COMPANY (LIMITED), *Landore, near Swansea*.—Steel Rails, Steel Plates for Tinning; Tinned, stamped and plain rolled; Steel Barrel and Bodies of Martini-Henry Rifle, &c. (804)

MACFARLANE, W., & COMPANY, *Saracen Foundry, Glasgow*.—Cast Iron Ornamental Rain Water Goods, Lamp Posts, &c. (291a)

BRUNNER & COMPANY, *Glasgow*.—Wrought Iron Tubes for Steam, Gas, and Water. (283)

KIRBY, BEARD & COMPANY, 18, *Cannon Street, London*.—Pins, Needles, and Hair Pins. [Rotunda.] (292)

HILL & SMITH, *Brierley Hill Iron Works, Staffordshire*.—Iron Gates, Wire Fencing, &c. (293)

(See also Group XIII.)

FRANCIS, T., & COMPANY, *Liverpool Street, Birmingham*.—Nails and Castings of Malleable Iron. (294)

SMITH & TURNER, 50, *Bartholomew Close, London*.—Ben Turner's Patent Adjustable Regulating Double-Action Door Spring, and Smith's Double-Action Door Spring, Door Centres, &c. (282)

BARNARD, BISHOP & BARNARDS, *Norfolk Iron Works, Norwich*.—Cottage Range, Mangle, Root Grater, Bottle Bin, Poultry Fountain, Carriage Jack, and machine made Staples, Garden Seats and Chairs, Ornamental Wrought-Iron Gates; Palisade in Wrought and Malleable Iron. (295)

(See also Group XIII.)

GILLOTT, JOSEPH, & SONS, *Victoria Works, Birmingham*.—Steel Pens. (296)

(See Appendix.)

RATCLIFF & TYLER, 76, *New John Street, Aston Road, Birmingham*.—Gas Fittings, Gaseliers; General Artistic Metal Work. (297)

(See Appendix.)

BURNEY & COMPANY, *Millwall Docks, London*.—Iron Cisterns and Tanks, painted or galvanised, as made for the Royal British Navy. (299)

(See Appendix.)

PARTRIDGE & COMPANY, *Lombard Street, Birmingham*.—Gas Fittings, Chandeliers or "Gazeliers," and Brackets and Ceiling Roses. (300)

PEARSON, F. G., & COMPANY, *Hope Works, Furnace Hill, Sheffield*.—Adzes, Augers, Axes; Hay, Manure, and Digging Forks; Hatchets; Joiners' and Engineers' Tools, Trowels, and all descriptions of light and heavy Edge Tools. (301)

(See Appendix.)

BEST & LLOYD, *Cambray Works, Handsworth, Birmingham*.—Brass Gas Chandeliers and Gas Fittings. (302)

WATTS, JOHN, & COMPANY (S. Bateson, inventor), *Broad Weir, Bristol*.—Vermin Asphyxiator; Disinfectant, Fumigator, and Vaporiser. (783)

TINPLATE DECORATING COMPANY, *Neath, Wales*.—Decorated Tinplates and Goods made from the same; Tinplates, and Tin Ware. (303)

EVERITT, ALLEN, & SONS, *Birmingham*.—Brass and Copper Tubes, Rolled Sheets, Wire and Nails, Copper Rivets and Washers, and Pierced Brass. (304)

(See Appendix.)

ELMSLIE, E. W., 5, *Great Winchester Street Buildings, Old Broad Street, London*.—Hermetically Closed Tin Cases for Preserved Provisions, which can be opened neatly and readily without a knife. (305)

BROWN, J. B., & COMPANY, 90, *Cannon Street, London*.—Galvanized Wire Netting, Fencing Wire, &c. (306)

(See also Group XIII.)

SMITH, FREDERICK, & COMPANY, *Caledonian Works, Halifax, Yorkshire*.—Iron Wire—For Cotton and Wool Cards, Colliery Ropes, Ships' Rigging, Telegraphs, Fencing; Weavers' Reeds, Ladies' Bonnets, &c., with illustrations of manufacture. (307)

WALKER, CAMPBELL, & COMPANY, 59, *Bridgewater Street, Liverpool*.—Haine's Patent Block-tin and Lead Pipes. (378)

PEYTON & PEYTON, *Bordesley Works, Birmingham*.—Brass and Iron Bedsteads, Cots, Flower Stands; and Spring Mattresses. (308)

HEMMING, S. C., & COMPANY, 25, *Moorgate Street, London*.—Iron Buildings, namely, two Houses for British Workmen, Royal Commission Pavilion, and Offices of

British Commission, with Club Room. Also a Church, Photographic Association House, and Italian Restaurant. (309)

PHILLIP, CHARLES J., 20, *Caroline Street, and 29, Mary Street, Birmingham*.—Chandeliers. (93)

SANDERS, H. G., *Little Albany Street, Regent's Park, London*.—Metallic Collapsible Tin Tubes for artists' colours, perfumes, cosmetics, &c. (310)

CROGGON & COMPANY, *Albion Wharf, 10, Upper Thames Street, London*.—Building, constructed of galvanised corrugated iron and wood. (319)

FLETCHER, LOWNDES & COMPANY (per Messrs. Dows, Clark & Company), 13a, *Great George Street, Westminster, London*.—Pavilion, the roof of which is constructed on Howitt's Patent System of Tubular Wrought Iron Ribs. (311)

HOWITT, W., & COMPANY, 13a, *Great George Street, Westminster, London*.—Roof of Dows, Clark & Company's Pavilion, constructed on tubular ribs. (311*)

LANCASTER, A., 27, *South Audley Street, London*.—Sporting Fire Arms, first quality, with latest and best improvements in Guns and Rifles. (312)

HENRY, ALEXANDER, 12, *South St. Andrew Street, Edinburgh*.—Henry's Express Rifles, Single and Double Barrelled, and Double Central-Fire Gun. (313)

(See also Group XVI.)

LEWIS, GEORGE EDWARD, 32 and 33, *Lower Loveday Street, Birmingham*.—Breech-loading Sporting Guns, double barrelled, central fire, &c.; Double Bolt-snap or Self-locking Pin Fire Breech-loaders for sporting, with steel breech-ends to the barrels; Treble Grip-snap Breech-loading Sporting Guns, with self-acting compensation bolt to save wear of breech-ends; Double Barrelled Express Sporting Rifle, with low trajectory, .450 bore; Martini-Henry Sporting Rifle, 15l. 15s. (664)

(See also Group XVI.)

TAYLER, D. F., & COMPANY, *New Hall Works, George Street, Birmingham.*—Solid headed Toilet Pins; Hair Pins; Hooks and Eyes; Pearl Buttons; Thimbles; Iron, Steel, Brass, and Copper Wire. (291)

SCHLETTER & COMPANY, *Birmingham.*—Fire Arms; Tin Plates; Tin and Japanned Ware; Cutlery, Edge Tools, Bells; Gilt Jewellery, Brass-foundry, Needles. (217)

(See also Groups VI. and X.)

DOUGALL, JAMES D., 59, *St. James's Street, London.*—Sporting Guns and Rifles, and new Explosives; Rifles for deer stalking, tiger and elephant shooting, swan and duck, and small game; Sawdust Gunpowder for sporting purposes, &c. (314)

MURCOTT, THEOPHILUS, 68, *Haymarket, London.*—Patent Hammerless Breech-loading Sporting Guns. (320)

(See also Group XVI. and Appendix.)

DOULTON & COMPANY, 28, *High Street, Lambeth, London.*—Plumbago Crucibles and Melting Pots, Muffles; Fire Clay Crucibles, Furnaces, Melting Pots, Evaporating Vessels, Muffles, &c. (315)

(See also Group XVIII.)

HYNAM, JOHN, 7, *Princes Square, Finsbury, London.*—Plumbago Crucibles for Gold, Silver, and Steel Refiners; also for Brass, Copper, Zinc, Antimony, and all other Metal Melters. (319a)

(See Appendix.)

PLANT BROTHERS, 166, *Bromsgrove Street, Birmingham.*—Enamelled Iron Tablets. (374)

PILLISCHER, M., 88, *New Bond Street, London.*—Reading and other Lamps. [Rotunda.] (622)

(See also Group XIV.)

BUSBY, T., 10, *Baron Street, Pentonville, London.*—Bath Valves. (699)

(See also Group XVIII.)

KENT, GEORGE, 199 to 201, *High Holborn, London.*—Rotary Knife Cleaners, Ventilated Refrigerators, Bread Slicing Machines, Egg Beaters, Mixers, Churns,

Potato Mashers, Mincers, Cinder Sifters, Clothes Wringers, Carpet Sweepers, &c. (711)

(See also Group XXI. and Appendix.)

THE WALKER FORGED SCREW AND BOLT COMPANY, *Low Walker, near Newcastle-on-Tyne.*—Patent Forged Screws; Spikes, Fish Bolts, Fang Bolts, and every description of Bolts and Nuts, Chains, Rivets, &c. (677)

(See also Group XVII.)

MURRAY, G. W. *Banff, Scotland.*—Fencing Wire Straining Brackets, for wood and iron posts. (610)

(See also Group XIIIa.)

WATSON, HENRY, *Highbridge Works, Newcastle-on-Tyne.*—Miners' Safety Lamps, used in the Coal Mines near Newcastle-on-Tyne. (486)

(See also Group XIII.)

ELEY BROTHERS, 254, *Gray's Inn Road, London.*—Cartridge Cases for Pin-fire and Central-fire Sporting Guns and Rifles, and for Revolving Pistols, Percussion Caps, Gun Waddings of thick felt, Wire Shot Cartridges for Game at long distances, for Muzzle and Breach Loaders. (657)

(See also Group XVI.)

CORCORAN, BRYAN, WITT & COMPANY, 28, *Market Buildings, Mark Lane, London.*—Wirework for Malt Kiln Floors, containing 6,912 and 9,072 meshes respectively to the square foot; Steel and Iron Round and Square Bar Smut Wire, woven of any size, width, and number of holes; Perforated Plates for Smut Machines; Portland Cement for Malting Floors, Concrete, &c.; Silk used for Dressing Flour; Wirework for Paper Making, Sieves, and other uses; Rice Shelling, Cleaning, and Polishing Stones; Mill Implements and Tools; Pulley Blocks, Hoists, Leather Belting, Grindstones, Haircloth, &c.; Wire of all kinds. (597)

(See also Group XIIIa.)

JEFFREYS, CHARLES, 103, *Hatton Garden, London.*—Outside Reflector Lamps, for lighting shop windows, &c. (753)

(See also Groups VIII. and X.)

THOMAS, RICHARD & Co., *Tin Plate and Iron Works, Lydbrook, near Ross.*—Specimens of Tin Plates. (359)

GROUP VIII.

Wood Industry.

CABINET WORK (Inlaid Floors, Windows, Doors, &c.). JOINERS' WORK. CLEFT WOODWORK (Casks, Shingles, Sieves, &c.). SMALL STAVES AND THEIR PRODUCTS, MATCHES, &c.). VENEERS AND MARQUETRIES. CUT AND TURNED WOOD. CHISEL WORK AND CARVED WORK. CORK MANUFACTURES. BASKET WORK. WOODWORK PAINTED, STAINED AND GILT. PROCESSES AND INVENTIONS USED IN THE PRODUCTION OF THESE MANUFACTURES. STATISTICS OF MANUFACTURE.

FOLEY, ARTHUR, *Fisherton Machine Cabinet Works, Salisbury*.—Boudoir Toilet Table of English yew tree and sycamore wood, and Toilet Table of American birch, inlaid with various woods, and decorated with incised Arabesques and Photographs, printed on the wood. (Designed by H. Dickenson.) (810)

HOLLAND & SONS, 23, *Mount Street, Grosvenor Square, London*.—Furniture. (325)

JACOB, THOMAS, 10, *Vicar's Road, Haverstock Hill, London*.—Table made of Amboyna wood, and inlaid with ivory and coloured woods. (326)

GILLOW & COMPANY, 176, *Oxford Street, London*.—Artistic Furniture—Inlaid Cabinet of Ebony and other woods in the old English style. (327)

JACKSON & GRAHAM, 30 to 38, *Oxford Street, London*.—Decorative Furniture and Carpets. (328)

COOPER & HOLT, 48, 49, and 50, *Bunhill Row, London*.—Mediæval Oak Buffet and Carving Stand to match; Ebony Flower Stand with Decorative Tile Panels; Drawing-room Cabinet of Satinwood, with glass back, inlaid with Ivory, Ebony, and other woods, mounted in Ormolu. In Children's Pavilion: Ash Furniture and General Nursery Fittings. In the Exhibitors' Waiting and Reading Rooms in the Royal British Commission Offices, a Patent Reversible Billiard Table, and other Furniture. Furniture and General Fittings in the English Workmen's Houses. (329)

HEAL & SON, 195 to 198, *Tottenham Court Road, London*.—Bedroom Furniture. (330)

(See also Group II. and Additional Exhibitions.)

WARD, HENRY, 2, *Vere Street, Oxford Street, London*.—Stuffed Birds; Collections of Humming and other Birds, mounted within glass fire screens. (331)

WARD, EDWIN, *Wigmore Street, London*.—Hoofs of a Stag killed at Compiègne, by H.R.H. the Prince of Wales, adapted to a Memorial Inkstand. (340a)

COLLINSON & LOCK, 109, *Fleet Street, London*.—Cabinets in Satinwood, Rosewood, &c.; Fireplace with Decorated Panels; Sideboards and Chairs. (332)

MORANT, BOYD & BLANFORD, 91, *New Bond Street, London*.—Ebonised Sideboard, Neo-Grec style; Walnut-tree Writing-table, style Louis XVI.; Florentine Pedestals, carved in alto-relievo and gilt; Wall and Ceiling Decoration, in ebony and gold, with painted panels in Italian style; Louis XVI. Cheval Screens; and other examples of decorative furniture. (333)

WALKER, W., *Bunhill Row, London*.—Suite of Furniture, consisting of Wardrobe, Toilet Table and Wash-hand Stand, in Satin Wood inlaid with engraved ivory and coloured woods, and sculptured ivory medallions. (334)

(See Appendix.)

CLARK, W., & SONS, 383, *Kennington Road, Lambeth, London*.—Chairs in Oak, Satin Wood, Ebonized Wood, gilt, covered with satin, &c. (785)

DREW, JOHN, 33, *Regent Street, London.*—Show Cases for the Exhibition.

(750)

(See also Group VI.)

SAGE, F., 80 to 84, *Gray's Inn Road, London.*—Show Cases for the Exhibition.

(751)

(See also Group X.)

SOMMERVILLE & SMITH, 34, *Eagle Street, Red Lion Square, London.*—Show Cases for the Exhibition.

(752)

JEFFREYS, CHARLES, 103, *Hatton Garden, London.*—Shop Fittings and Show cases for the Exhibition.

(753)

(See also Groups VII. and X.)

BATTAM, HEYWOOD & HANKS, 54, *Oxford Street*; 1, *Berners Street*; and 17, *Regent Street, London.*—Ebonised and Gilt "Structural" Pavilion, Table, Chairs, and Carpet, designed by Dr. Dresser, F.L.S. [*Rotunda.*]

(94)

CLARKE, J. R., 5, *Liverpool Street, Watworth, London.*—Fancy Inlaid Articles in Wood, known as "Tonbridge Ware;" Mosaic Wood, made from natural British and Foreign woods without any dye or colouring.

(335)

NEVILL, LADY DOROTHY, *Dangstein, Petersfield.*—Workbox.

(336)

MINNS, J., *Thorn Lane, Norwich.* Wood Carvings; Animals, Birds, Foliage, &c.

(337)

BARNARD, B., 107 *St. Paul's Road, Highbury, London.*—Folding Hammock Basinettes and Baskets.

(338)

DUNCAN, J., 6, *George Street, Great Portland Street, London.*—Painted Imitations of Woods and Marbles.

(339)

BETJEMANN, G., & SONS, 36, 38, *Pentonville Road, London.*—Dressing Cases and Bags; Desks, Patent Bookslides, Albums, Envelope Cases; Trinket, Work, and other Boxes, in various woods, Ormolu, &c., decorated with Enamel, Marble, Stones, Mosaics, Wedgwood ware, &c.

(808)

(See also Group VII.)

LE CRAS, J., JUN., *St. Heliers, Jersey.*—Encoignure or Corner Cupboard of Oriental Design.

(725)

JACKSON, T. S., 199, *High Street, Southwark, London.*—Specimens of Stained Woods.

(806)

(See also Group III.)

GROUP IX.

Stone, Earthenware, and Glass Industry.

STONES, NATURAL AND ARTIFICIAL; Slate and Cement Works, Natural and Imitated Stones and Marbles, Paving Stones and Floor Tiles, Ornaments and Decorations, Pipes, Grinding Stones, &c. EARTHENWARE, PIPES, COOKING VESSELS, STOVES, PLASTIC PRODUCTIONS, TERRA COTTAS, &c. GLASS MANUFACTURES: Glass for Household use and Fancy Purposes, Imitation Gems and Pearls, unset, &c. PROCESSES AND MANUFACTURES USED IN THE PRODUCTION OF THE ABOVE ARTICLES. STATISTICS OF PRODUCTION.

DIRECTORS OF CONVICT PRISONS IN ENGLAND.—Mosaic Flooring Constructed of Scraps of Marble, the work of Female Convicts in Woking Prison. (340)

JOHNSON, I. C., & COMPANY, 25, *Great Tower Street, London*.—Cements, Concrete Blocks of Cement, &c.; Testing Machine to show strength of Cement. (345)

MINTON, HOLLINS, & COMPANY, *Patent Tile Works, Stoke-upon-Trent, Staffordshire*; and 50, *Conduit Street, Regent Street, London*.—Tiles—plain, glazed, encaustic, majolica-embossed, printed, enamelled, and painted; Chimney-piece of wood and marble, inlaid with painted tiles; and with Fireplace fitted complete Mosaic Reredos, Mosaic and Encaustic Tilet Pavements; Marble Chimney-piece, with Stove, inlaid with painted earthenware slabs. (346)

WELSH SLATE COMPANY, 19, *Spring Gardens, Charing Cross, London*.—Slates and Slabs from Palmerston Quarry, North Wales, namely, one slab smoothed on both sides, another showing the natural surface of the slate; Roofing Slates of various dimensions, and ridges split twenty to the inch, to show the cleavage of the slate. (347)

(See Appendix.)

GREAVES, J. W., *Port Madoc, North Wales*.—Best Blue Roofing Slates from his Festiniog Quarries, North Wales. (348)

PEN-YR-ORSEDD SLATE QUARRY COMPANY, (W. A. DARBISHIRE, Manager,) *Carnarvon, North Wales*.—Slate for Roofing; Slate Slabs; Slate Ridge for Roofs; Writing Slates, made with Dixon's patent machinery. (349)

LAVERS, A. H., *Nine Elms, London*.—Portland Cements, Roman, Keene's and Parian; Plaster of Paris. (350)

TAYLOR, ROBERT MINTON, *Fenton, near Stoke-upon-Trent, and 206, Great Portland Street, London* (Agents at Vienna, Springer & Sterne).—Encaustic, and Geometrical Tiles, Art and Majolica Tiles and Mosaics. (351)

TURNER, W., *Carnarvon, Wales*.—Welsh Roofing Slates. (352)

SCOTT'S SEWAGE COMPANY, *Ealing, London*.—Ceraent, prepared from sewage deposit; the burnt sewage cements reduced to powder; the same cements set neat. (19)

(See also Group III.)

CWMORTHIN SLATE COMPANY (LIMITED), *Port Madoc, North Wales*.—Roofing Slates. (353)

WOULDHAM CEMENT COMPANY, *Wouldham, Rochester, Kent*.—Portland Cement in various stages of manufacture. (354)

BURGH CASTLE PORTLAND CEMENT COMPANY (LIMITED), *Burgh Castle, Great Yarmouth*.—Portland Cement in its various stages of manufacture, as prepared for stuccoing, for concrete and for hydraulic purposes; Test Blocks of the same which have borne a tensile strain of 1,120 pounds on $1\frac{1}{2}$ square inches, after seven days' immersion in water; White Suffolk facing and moulded Bricks. (355)

WOOD & IVERY, *Albion Brick Works, West Bromwich, Staffordshire*.—Terra-Metallic Coping, Cornices, Mouldings, Plain and Ornamental Bricks, Channels, Garden Edging, Caps, Plinths, Kerbing and Paving Slabs, &c., &c. (356)

HAMMILL, J. B., *Bridgewater*.—Bath Bricks, made from selected sediments of the river Parret, at Bridgewater, for cleaning, brightening, and polishing hardware, brass, and other metal work, knives, &c. (787)

FORD, LEWIS, & COMPANY, *Bristol Road, Gloucester*.—Slate and Marble, Enamelled, Chimney Piece, Table Tops, &c. (788)

WEDGWOOD, JOSIAH, & SONS, *Etruria, Staffordshire*.—Jasper or Wedgwood Ware, white bas-relief on coloured ground, unglazed; "Henri-deux" imitation; Art Pottery Paintings, by M. Lessore; Paintings on Raw Enamel, by M. Beau; Majolica Vases, Dessert, and Fancy Articles; Enamelled, Printed, and Cream-coloured Earthenware; Chemical and Telegraphic Ware; Sanatory and Plumbers' Ware. (796)

DOULTON & WATTS, *Lambeth Potteries, London*.—Stoneware of every description, for chemical manufacturers, dyers, and others. (357)

JONES, G., *Trent Potteries, Stoke-upon-Trent*.—Earthenware and Majolica. (358)

GREEN, JAMES, 35, *Upper Thames Street, London*.—Table Glass, cut and engraved; Glass Lustres and Chandeliers, Vases, Table and other decorative objects. (360)

DANIELL, A. B., & SON, 46, *Wigmore Street, London*.—Glass for Household Use and Ornamental Glass; Pottery and Porcelain, Dinner and Dessert, Breakfast and Tea Services, Toilet Ware, Majolica Vases, and Collection of Ornamental Objects. (361)

COPELAND, W. T., & SONS, 160, *New Bond Street, London; and Stoke-upon-Trent, Staffordshire*.—Glass for Table Use: cut, engraved, plain, and moulded; Porcelain Vases, Dinner, Dessert and Tea Services. Statuettes in Ceramic Statuary. (362)

MOORE, E., & COMPANY, *Tyne Flint Glass Works, South Shields* (Agents for the Continent, SALOMON & JACOBSON, 14, *Deichstrasse, Hamburg*).—Pressed Table Glass, suitable for exportation. (363)

AIRE AND CALDER GLASS BOTTLE COMPANY, *Castleford, Yorkshire*.—Glass Bottles for Aërated Waters, with patent self-acting stoppers; Bottles used for Wine and Spirits, with patent stoppers and packing cases; Bottles used for Medicine, Perfumery, Oils, Preserves, Pickles, Sauces, &c.; Monster Bottles and Carboys. (364)

PELLATT & WOOD, 25, *Baker Street, Portman Square, London*.—Engraved and Cut Glass; Samples of Table Glass, and Services of new forms and designs; Plain Thin Glass; and New Light Cut Glass Designs; China and Earthenware Breakfast, Dinner, and Dessert Services; Paterœ and Vases; Jardinières; Figures in Terra-Cotta, with Persian Blue Glaze, and New Persian Glaze Ware. (365)

(See Appendix.)

PELLATT & COMPANY, *Falcon Glass Works, Blackfriars, London*.—Plain and Cut Crystal Glass; Table Services; Patterns of Glass for Railway and other purposes; Specimens of Lapidary Cutting in imitation of celebrated Diamonds. (366)

(See Appendix.)

BOUCHER, GUY & COMPANY, 128, *Leadenhall Street, London*.—Glass, cut and engraved; China and Earthenware. (367)

(See Appendix.)

CODD, H., (Per Messrs. Dows, Clark, & Co.), *Grove Lane, Camberwell, London*.—Patent Stoppered Bottles for Aërated Waters. (368)

ROYAL PORCELAIN WORKS, *Worcester*.—Porcelain, Ivory Porcelain, Majolica, Enamelled Terra-Cotta; Vitreous Stoneware and Fine Earthenware. (369)

MINTONS, *Stoke-upon-Trent, and 28, Walbrook, London*.—China and Earthenware Dinner, Dessert, Tea, and Toilet Services, China, Majolica, and Parian Vases, Statuettes, and other Ornaments; Enamelled Tiles for walls, grates, hearths, and flower boxes. (370)

MORTLOCK, JOHN, 203, 204, *Oxford Street, London*.—China Breakfast, Dinner, Dessert, and Tea Services, manufactured by Minton; Stone China Dinner Services of Minton, and Wedgwood Ware; Vases, &c., painted by Solon, Mussill, Coleman, and others; Majolica Garden Seats and Vases; Service of Engraved Glass, executed for the Earl of Dufferin, Governor-General of Canada; Glass Bird Cages. (371)

BROWN - WESTHEAD, T. C., MOORE & COMPANY, *Cauldon Place, Hanley, Staffordshire*.—Fine Earthenware and Porcelain, and "Viennese" Earthenware for table use; Majolica, and Jasper Vases, &c.; Specimens of Painting under Glaze. (372)

(See also Group XVIII.)

SIMPSON, W. B., & SONS, 456, *West Strand, London*.—Chimney Piece of Art Tiles and Walnut Wood, with tiled

sides, arranged for open grate. Price 150 guineas; Oriental Shaped Bottles, Vases, and Trinket Box in Majolica. (373)

BARLOW, THOMAS, *Loughton, Staffordshire*.—China. (379)

BENHAM & SONS, 50, 52, & 54, *Wignore Street, London*.—Marble Chimney Pieces. (261)

(See also Group VII.)

SILICATED CARBON FILTER COMPANY, *Church Road, Battersea, London*.—Silicated Carbon Filters in Glass, Terra-Cotta, Marbled China and Earthenware. (Shown in operation at Royal Commission Buildings in the Park.) (708)

(See also Group XXI.)

HAZEON, THOMAS, & COMPANY, *Leadenhall Street, London*.—Hone and other Stones for sharpening Tools, &c. (740*)

(See also Additional Exhibitions and Appendix.)

BURKE & COMPANY, 17, *Newman Street, London*.—Marbles. (740*)

(See also Additional Exhibitions.)

COLTHURST, SYMONS & Co., *Bridgwater*.—Bath Bricks for cleaning, brightening and polishing hardware, brass and other metal work, knives, &c. (256)

DOULTON, H. & COMPANY, 28, *High Street, Lambeth, London*.—Blue Metallic Clay Goods for Pavings, Copings, Ridge Tiles, Channellings and Kerbings; also for use in Buildings where extra strength is required. (315)

GROUP X.

Small Ware and Fancy Goods.

MANUFACTURES OF IVORY, MEERSHAUM, TORTOISE-SHELL, MOTHER-OF-PEARL, WHALEBONE, WAX WARES, JAPANED GOODS, &c. FANCY GOODS, OF LEATHER, BRONZE, &c. UMBRELLAS, PARASOLS, FANS, CANES, WHIPS, &c. COMBS AND BRUSHES. TOYS. PROCESSES AND INVENTIONS USED IN THE PRODUCTION OF MANUFACTURES. STATISTICS OF PRODUCTION.

ATKINSON, J. & E., 24, *Old Bond Street, London*.—Ivory and Tortoise-shell Goods. (47)

(See also Group III.)

COLLINGS & WALLIS, *King Edward's Road, Birmingham*.—Japanned Trays, Waiters, Coal Scuttles, Toilet Ware, Cash Boxes, Candlesticks; Japanned Papier-Mâché Tables, Writing Desks, Trays, Ink-stands, &c.; Japanned Iron and Pearl Vases. (257)

(See also Group VII.)

SCHLETTER & COMPANY, *Birmingham*.—Ivory and Pearl Shell Work; Umbrellas, Combs, &c. (217)

(See also Groups VI. and VII.)

SAGE, F., 80 to 84, *Gray's Inn Road, London*.—Fancy Stands for Jewellery. (751)

(See also Group VIII.)

JEFFREYS, CHARLES, 103, *Hatton Garden, London*.—Velvet Jewellery-Stands, Morocco and Velvet Cases for Jewellery. (753)

(See also Groups VII. and VIII.)

SANGSTER & COMPANY, 140, *Regent Street*; 10, *Royal Exchange*; 94, *Fleet Street*, and 75, *Cheapside, London*.—Umbrellas, Parasols and Sunshades. [*Rotunda*.] (380)

SWAINE & ADENEY, 185, *Piccadilly, London*.—Whips, Riding and Walking Canes and Sticks. (211)

(See also Group VI.)

KENT, G. B., & COMPANY, *Great Marlborough Street, London*.—Brushes for the Toilet, for the Stable, and for Painters' (381)

(See Appendix.)

STEWART, S. R., & COMPANY, *Aberdeen Comb Works, Aberdeen*.—Combs of all kinds in Tortoiseshell, Horn, and Vulcanite; Horn Spoons, Drinking Cups, and Druggists' Scoops; Vulcanite Bracelets, Chains, Ornaments, &c. (382)

(See Appendix.)

LEWIS, E. W., 4, *Sherwood Crescent, Upper Westbourne Park, London*.—Gyroscopes; Aërial, Scientific, Mechanical and other Toys. (383)

BINKO, H. BOCK, 183, *City Road, London*.—Toys. (384)

(See also Group XI.)

CREMER, W. H., 210, *Regent Street, London*.—Toys and Games. (386)

SMITH & WRIGHT, *Birmingham*.—Buttons, Gilt Jewellery, and Dress Ornaments. (387)

JONES & Co., 111, *Jermyn Street, London*.—Fishing Tackle, &c. (316)

PEAGAM, J. J. R., 7, *Queen Street, St. Helier's Jersey*.—Walking Sticks made from the Stalk of the Jersey Cabbage. (318)

GROUP XI.

Paper Industry and Stationery.

PAPER PULP, PAPER, AND PASTEBOARD. COLOURED PAPERS, PAPER HANGINGS, TAPESTRY, PLAYING CARDS, &c. PAPER-MÂCHÉ GOODS, CARD, AND MILLBOARD. ARTICLES FOR WRITING, DRAWING AND PAINTING. BOOKBINDING AND SIMILAR WORK. PROCESSES AND MANUFACTURES USED IN THE PRODUCTION OF THE ABOVE MANUFACTURES. STATISTICS OF PRODUCTION.

SAUNDERS, T. H., *Dartford, Kent*.—Water-marked Hand-made Papers for Bonds, Banknotes, Shares, &c.; Artistic Designs in Watermark; Hand-made Papers for Drawing, Account Books, Correspondence, &c.; Loan and Parchment Paper; Machine-made Papers for Writing and Printing; Safety-coloured Paper for Cheques; Blotting Paper, white and coloured. (391)

McNICOL, J., 97, *Buchanan Street, Glasgow*.—Chemical Wood Pulp, and Paper made from it. (392)

LEE, JAMES ABRAHAM, *Severn Ironworks, Lydney, Gloucestershire*.—Paper made from wood alone, with specimens of the pulp bleached, unbleached, &c. (393)

COWAN, ALEXANDER, & SONS, *Valley Field Mills, Pennicuik, Edinburgh*.—Writing Papers of various qualities; Envelopes made from Cotton and Linen Rags, and Esparto Fibre, gelatine sized; Account Book Papers made from Rags, double sized; Rags, Esparto, Half-stuff, &c., employed in paper-making; Buffalo Skins used in gelatine sizing; Photographs illustrative of the various processes in paper making. (394 and 740*)
(See also *Additional Exhibitions*.)

PORTAL, W. S. & R., *Laverstoke Mills, Micheldever, Hampshire*.—Bank of England Note and other Watermarked Papers. (395)

PATENT WATERPROOF PAPER & CORRUGATED FIBRE COMPANY, *Old Mill, Farnworth, near Widnes,*

Lancashire.—Paper, Paper Tubes, and Cart-ridge Cases, waterproofed. (408)

ENGLISH, JAMES, & COMPANY, 22 & 23, *Budge Row, Cannon Street, London*.—Playing Cards. (396)

WEBSTER, H., *Litchfield Street, Soho, London*.—Inkstands, &c. (397)

LYONS, WILLIAM, *Park Street, Manchester*.—Writing and Copying Inks, black and coloured, and Sealing Wax. (398)

STEPHENS, H. C., 171, *Aldersgate Street, London*.—Inks, Writing Fluids, Copying Inks, Ink Powders, Gum Mucilage, Inkstands, Parallel Rulers, Quills, Pens, Sealing Wax, &c. (399)

(See also *Group III*.)

NEWMAN, JAMES, 24, *Soho Square, London*.—Artists' Water Colours, dry and moist; Oil Colours and Materials for Oil Painting; Brushes, Drawing Paper, &c. (400)

BINKO, H. BOCK, 183, *City Road, London*.—Spectograph or Optical Drawing Apparatus, Apparatus for Drawing Ellipses, Apparatus for Reducing or Enlarging Drawings, Black and Coloured Writing Inks, and Marking Ink. (384)

(See also *Group X*.)

BLACKWOOD, J., & COMPANY, 18, *Bread Street Hill, London*.—Copying and other Writing Inks; Marking Ink called "Jetoline"; Clarified Gums. (402)

HILL, H., & SONS, 38, *Bow Lane*, and 30, *Walling Street*, *London*.—Quills, Quill Pens, Nib Pens, Toothpicks, Sealing Wax, Wafers, Pencils; Quills for Paint Brushes and Fishing Tackle; Stationery Cases, Ivory Paper Knives, Sponge, India-Rubber, and Marble Paper Weights; Feathers for Beds, Shuttlecocks, Fancy Flowers, &c.; Wings of various Birds. (403)

ZAEHNSDORF, JOSEPH, 36, *Catherine Street*, *Strand*, (late 30, *Brydges*

Street), *London*.—Bookbinding, artistic and general. (404)

(See *Appendix*.)

JONES, OWEN, 9, *Argyll Place*, *London*.—Designs for backs of Playing Cards. (688)

(See also *Groups XII. & XVIII.*)

McLEAN & HOPE, *Leith*.—Paper Materials. (740*)

(See also *Additional Exhibitions*.)

GROUP XII.

Graphic Arts and Industrial Drawing.

BOOK PRINTING. XYLOGRAPHY. COPPER-PLATE AND STEEL-PLATE PRINTING. LITHOGRAPHY AND CHROMO-LITHOGRAPHY. PHOTOGRAPHY. ENGRAVING AND GUILLOCHE WORK. PATTERN-DRAWING AND DRAWING FOR DECORATION. TOOLS AND APPARATUS. STATISTICS OF PRODUCTION.

STEPHENSON, BLAKE & COMPANY, *Sheffield & London*.—Printing Types, plain and ornamental; Types for Ribbon and Scroll Designs. (410)

BRITISH & FOREIGN BIBLE SOCIETY, *Queen Victoria Street*, *Blackfriars*, *London*.—Bibles printed in forty-eight languages; the New Testament in eighty-seven languages; portions of the Holy Scriptures in sixty-six languages. (411)

RELIGIOUS TRACT SOCIETY, *Paternoster Row*, *London*.—Religious Books and Tracts, and Illustrated Periodicals for adults and children, in all the European and Indian languages, and in North American Indian, and African languages. (411a)

REED & FOX, 4, *Fann Street*, *Aldersgate Street*, *London*.—Specimen Book of Printing Types. (385)

SUNDAY SCHOOL UNION, 56, *Old Bailey*, *London*.—Printed Books, Sheets, Cards, &c., used in Sunday Schools. (413)

AUGENER, G., & COMPANY, *Beethoven House*, 86, *Newgate Street*, *London*.—Printed Music. (409)

WHITE, JOHN, *King Street*, *Stroud*, *Gloucestershire*.—Printed Ecclesiastical Music. (388)

GRANT & COMPANY, 72 to 78, *Turnmill Street, London, and 2, Rue Drouot, Paris.*—Letterpress and Lithographic Printing, plain and in colours; Fine Art Printing; Illuminated Cards, Show Boards; Wood Engraving; Enamelled Iron Tablets. (10a)

JOHNSON, J. M., & SONS, 3, *Castle Street, Holborn; Steam Printing Works, 56, Hatton Garden, London.*—Catalogue of the British Section of the Exhibition; "Crystal," "Chromo-fulgent," Indestructible Iron, and other Show Tablets; Posters, and General Printing in Colours. (433)

(See Appendix.)

BARTHOLOMEW, JOHN, 17, *Brown Square, Edinburgh.*—Map Engraving and Colour Printing for Atlases, educational and other purposes. (414)

DAY, JOHN B., *Savoy Street, Strand, London.*—Chromo-Lithographs. (415)

JOHNSTON, W. & A. K., 4, *St. Andrew's Square, Edinburgh.*—Human Anatomy and Physiology, in two large Sheets; Illustrations of Botany, in four large Sheets. Historical Geography of the Clans of Scotland in one sheet. (416)

LEIGHTON, JOHN, F.S.A., 12, *Ormonde Terrace, Regent's Park, London.*—Maps of London, Paris, and Vienna, hexagonally indexed in English Miles for the purpose of Municipal Government, Imperial Administration, Cab Fares, &c. (407)

BROWNRIGG, T. M., 32, *Lower Leeson Street, Dublin.*—Photographs. (417)

GODBOLD, H. J., 8, *Grand Parade, Saint Leonards-on-Sea.*—Photographs. (418)

HAES, FRANK, 41, *St. George's Place, Hyde Park Corner, London.*—Photographs of Wild Animals, enlarged by the Autotype Process from small negatives taken in the Zoological Society's Gardens, London. (419)

BEASLEY, F., JUN., 30, *Upper Hamilton Terrace, St. John's Wood, London.*—Photographs taken by a dry process, showing the number of days between preparation and exposure, and also between exposure and development; Views of English and Irish Scenery, &c. (420)

TWYMAN, C., 36, *High Street, Ramsgate.*—Photographs. (421)

ROBINSON, H. P., & CHERRILL, N. K., *Tunbridge Wells.*—Photographs. (422)

FERNELEY, CHARLES A., *Scalford Road, Melton Mowbray.*—Photograph Lantern Slides—English Scenery. (423)

HARE, GEORGE, 1 *Lower Calthorpe Street, London.*—Photographic Apparatus, Cameras, Graphoscopes, Stereoscopes, &c. (424)

LONDON STEREOSCOPIC AND PHOTOGRAPHIC COMPANY, 110 and 108, *Regent Street, and 54, Cheapside, London.*—Photographic Portraits of English Statesmen, Divines, Literary and Scientific men, Dramatic Celebrities; The Disraeli Cabinet, 1868; The Gladstone Cabinet, 1873; Stereographs of Rustic Scenes in England, and two large views of International Exhibition, 1872. (425)

CAMERON, MRS. JULIA M., *Freshwater Bay, Isle of Wight.*—Photographs, Portraits, and Studies, from Life. (426)

WORTLEY, COLONEL H. STUART, *Rossllyn House, Grove End Road, London.*—Photographs on Uranium dry plates; Photographs from nature and from life. (427)

CRAWSHAY, ROBERT T., *Cyfarthfa, Merthyr Tydvil, Wales.*—Photographs. (828)

WANE, MARSHALL, 4, *Finch Road, Douglas, Isle of Man.*—Photographic Portraits and Composition Groups. (389)

HEATH, VERNON, & COMPANY, 43, *Piccadilly, London.*—Landscape Autotypes, enlarged from negatives 12 inches by 10. (390)

MCLACHLAN, LACHLAN, 9, *Cross Street, Manchester*.—Photograph representing the Central Executive Cotton Famine Relief Fund Committee, sitting at the Town Hall, Manchester—the portraits taken from the life. (150)

HARMAN, J. S., 87, *New Bond Street, London*.—Photographs. (203)

LEMERE, BEDFORD, 147, *Strand, London*.—Architectural Photographs. Details of Westminster Abbey, and Salisbury, Lincoln, Hereford, and Llandaff Cathedrals, and of Mansions. (204)

LEWIS, ABEL, *Douglas, Isle of Man*.—Photographs of young children. (205)

BEAU, ADOLPHE, *Regent Street, London*.—Photographs. (615a)

WOODBURY PERMANENT PRINTING PROCESS COMPANY, 9a, *Hereford Square, London*.—Photographs in permanent colours (Lent for the use of the Royal Commission for Decoration of the Workmen's Dwellings).

GRAY, B., *London*.—Fire Screen decorated with Photographs. (375)

WYON, J. S. & A. B., 287, *Regent Street, London*.—Engraving and Illumination; Specimens of Engraving, including the Great Seal of England, Great Seal of Canada; Dies for paper, Arms, Monograms, &c., stamped in colours and illuminated; Book Labels, &c.; Reductions in Steel (untouched) from models in relief, or in intaglio; Paintings of Arms and other designs. (430)

BLADES, EAST & BLADES, 11, *Abchurch Lane, London*.—Bank Note Engraving, with microscopic work for prevention of forgery. (431)

DE LEON, M., & COMPANY, 24, *Rathbone Place, London*.—Dies and Stamps; Self-acting and Self-inking Dating, Numbering, Endorsing, and Paging Machines; Stencil Plates, Brass-faced Type, and Marking Ink. (431a)

JONES, OWEN, 9, *Argyll Place, London*.—Designs for Wall Decorations, Furniture, Carpets, Paper Hangings, Silk Hangings and Backs of Playing Cards. (688)

(See also Groups XI. and XVIII.)

GROUP XIII.

General Machinery.

PRIME MOVERS (Steam Generators, Steam-Engines, Water-Wheels, Turbines, Pressure-Engines, Air, Wind, and Electro-Magnetic Engines, Gas Machines). MACHINES FOR TRANSMITTING POWER (Shafts, Wheels, Pulleys, Bands, &c.). MACHINES FOR WORKING SPECIAL KINDS OF MATERIALS (Machines for Mining, Metallurgy, Metal Work, and Wood Work; Machines for Spinning, Weaving, Knitting Sewing, and Embroidering; Machines for Fulling, Cleansing, Shearing, Dyeing; Machines for Bleaching, Leather-Dressing, &c.; Machines for Paper Manufactures and Bookbinding, for Type-Founding, Printing, Lithography, Copper-Plate Printing, Colour Printing, &c.; Machines and Apparatus for Sugar-Making, Oil Manufacture, Breweries, Distilleries, Stearine, Soap, Candles, Starch, Ice-Making, Match-Making, Corn Mills, and Agricultural Machinery and Apparatus). OTHER MACHINERY NOT BELONGING TO THE ABOVE-MENTIONED (Blast Engines, Fire Engines, Pumps, Ventilators, &c.). MATERIALS AND PARTS OF MACHINERY. RAILWAY MACHINERY (Locomotives, Tenders, Railway Velocipedes and parts of them, Railway Carriages and parts composing them, Special Machinery and Apparatus for Railway Workshops and Railway Contrivances; for making and maintaining Railway Plant; Snow Ploughs, &c.). STEAM GAUGES, DYNAMOMETERS, TRADIOMETERS, &c. ALL SORTS OF VEHICLES NOT CONCERNED WITH RAIL. STATISTICS OF PRODUCTION.

PENN, JOHN, & SONS, *Greenwich*.—Model of Pair of Trunk Engines, of 1,350 horse-power, nominal, as fitted to H.M. iron-clad ships, "Minotaur" and "Northumberland." (440)

POWIS, CHARLES, & CO., *Cyclops Works, Millwall Pier, and 60, Gracechurch-street, London*.—Twenty-horse Power Double Cylinder Steam Engine; Steam Crane; Wood-working Machinery. (441)

HOWARD, J. & F., *Bedford*.—Patent Safety Steam Boiler. (442)
(See also Group XIIIa.)

DERHAM, JOHN J., *Blackburn*.—Horizontal High Pressure Expansion Steam Engine of 20-horse power nominal, driving Printing Machinery; Horizontal High-Pressure Patent Expansion Steam Engine of 25-horse power nominal, driving Wood Working Machinery; Patent Atmospheric Hammer. (443)
(See Appendix.)

PATENT GAS COMPANY, 25, *Fenchurch Street, London*.—Apparatus for the Manufacture of Gas, by Eveleigh's Patented Process. (444)

SPICE, R. P., C.E., 21, *Parliament Street, London*.—Working Apparatus for Making Gas for Heating and Illumination. (445)

GALLOWAY, W. J., & SONS, *Knot Mill Iron Works, Manchester*.—Two

"Galloway" Steam Boilers, and Steam Engine. (446)

McNICHOL, JOHN, 97, *Buchanan Street, Glasgow*.—High Pressure Steam Generator. (392)

READING IRON WORKS, (LIMITED), *Reading, Berkshire*.—Fixed Steam Engine, high pressure and condensing, fitted with variable expansion valve; 10-horse power Horizontal Engine; illustrations of new series of Economical Engines, 2 and 4-horse power; Portable Engine with special economical arrangements. (447)
(See also Group XIIIa.)

CLARKSON BROTHERS (per John McNicol), *Glasgow*.—Self-acting Steam Pumping Engines. (392*)

CATER & WALKER, *Grove Steam Boiler Works, Southwark, London*.—Patent Multitubular Steam Boiler, of 50-horse power, with Fittings, at work in British Boiler House, at the Exhibition. (448)

GLOVER, GEORGE, & COMPANY, *Ranelagh Road, Pimlico, London*.—National Standard Gasometers, similar to those supplied to Her Britannic Majesty's Government and to the Government of the Netherlands; Dry Gas Meters; and Gas Apparatus. (449)

ADAMSON, DANIEL, & COMPANY, *Engineering Works, Hyde Junction, near Manchester*.—Steam Boilers—two of

40-horse power each, one with Steel Shell Plates, Solid Welded Flue-rings and Circulating Pipes; Hydraulic Jacks for Lifting Boilers of 10 to 30 tons weight. (450)

NORRIS, S. E., & COMPANY, 56, 57, 58, and 174, *High Street, Shadwell, London*.—Leather Driving Bands for Machinery; Leather Hose for Fire Engines; Buckets; Pump and Hydraulic Leathers; Strap Butts, &c. (451)

HOLGATE, J., & COMPANY, 33, *Great Dover Street, London*.—Leather Machine Bands; Fire Hose, Buckets, &c. (452)

EDWARDS, W. J., 20, *Market Place, Manchester*.—Leather Driving Bands, made from best English leather, and without cross joints. Manufactured by the patentees, Sampson and Company, Stroud, Gloucestershire. (453)

HEAD, WRIGHTSON & COMPANY, *Teesdale Iron Works, Stockton-on-Tees*.—Hoists, Moore & Head's patent; Pulley Blocks, Moore's patent. (454)
(See Appendix.)

PICKERING, JONATHAN, *Stockton-on-Tees*.—Patent Pulley Blocks, Sack Hoists, and Procter's Patent Spring Hammers, for hand and steam power. (606)

HUDSWELL, CLARKE & RODGERS, *Railway Foundry, Leeds*.—Patent Wrought Iron Driving Pulley. (564)

WEBB & SON, *Combs Tannery, Stowmarket*.—Leather Machine Bands, Fire Buckets and Hose. (209)
(See also Group VI.)

POWIS, JAMES, WESTERN & COMPANY, *Victoria Works, Belvedere Road, Lambeth, London*.—Wood Planing, Moulding, Tongueing and Grooving, Tenoning, Mortising, and Boring Machinery; Sawing Machinery of various kinds; Band-saw Machine for Cutting Iron; Stone Moulded and Planed by Machinery; Driving Belts. (455)

PLATT, BROTHERS & COMPANY, (LIMITED), *Hartford Iron Works, Oldham*.—Wool-carding, Preparing, Spinning

and Weaving Machinery; Worsted Gill Boxes and Combing Machines; Cotton Gins. (456)

TANGYE BROTHERS & HOLMAN, 10, *Laurence Pountney Lane, London*.—Steam Engine, 12-horse power, Tangye's patent, horizontal high pressure with variable expansion gear; Steam Pump, direct action, with 14-inch steam or air cylinder, 12-inch water cylinder, and 24-inch stroke; Lifting Jacks, Pulley Block, &c. (457)

BROWN, BAYLEY, & DIXON, *Steel and Iron Works, Sheffield*.—Patent Injector for Locomotive Boilers, &c. (239)

COMBE & BARBOUR, *Falls Foundry, Belfast, Ireland*.—Flax Machinery and Tools; Combe's Patent Hackling Machine, Spreader, Drawing Frame, Roving Frame, Cop Machine, Fluting Machine. Lathe for wood rollers, Patterns, &c. (460)

LIVESEY, HENRY, *Greenbank, Blackburn*.—Machine for winding from pin-cops and coloured Yarns from the Hank, and for unknitting heddles for re-use, with case of sample shuttles, bobbins, pickers, &c.; Drawings of Power Looms. (461)

BROUGHTON COPPER COMPANY, *Manchester*.—Calico Printing Rollers for garments and handkerchiefs, in copper and brass; Copper and brass tubes for steam, gas, water, condensers, &c., seamless and brazed; Copper Singeing Plates for dressing calico; Bolts and Plates for locomotive fire-boxes; Copper and Brass ingots, plates, strips, &c. (462)

NUSSEY & PILLING, *Park Works, Leeds*.—Sewing Machines. (463)

BAINES, W. N., *Lancefield Street, Glasgow*.—Steam Fittings in iron and gun-metal; Valves, Whistles, Water Guages, Gauge Cocks, Grease Cocks, Oil Syphons, &c. (464)

MASSEY, B. & S., *Openshaw Canal Ironworks, Manchester*.—Steam Hammers; 5 cwt. Hammer, double-acting, self-acting, and hand-worked, for the use of engineers, shipbuilders, wagon makers, and others;

1½ cwt. Hammer for machinists, implement makers, and others; ½ cwt. Hammer, can be worked by hand or foot, for file makers, cutlers, bolt makers, and others; 3 cwt. "Special Steam Stamp" for stamping bolts, rivets, studs, shovels, and other articles. (465)

TICKLE, R. P., 3, *Poppin's Court, Fleet Street, London*.—Iron Bed for Mounting Stereotype or other plates for printing. (466)

BACON, G. W., & COMPANY, 127, *Strand, London*.—Beckwith's Portable Sewing Machine. Price 35s. (467)

LAWSON, S., & SONS, *Hope Foundry, Leeds*.—Spinning Machinery for Hemp, Jute, and Flax; Tow Carding Engine, &c. (468)

(See Appendix.)

DE BERGUE, C., & COMPANY, 10, *Strand, London; Strangeways Works, Manchester; and Wauntreoda Works, near Cardiff*.—Boiler and Girder Rivetting Machines; Rivet Making Machines; Punching and Shearing Machines; Patent Permanent Way; Permanent Way Levellers, &c. (470)

(See Appendix.)

GWYNNE, J. & H., *Hammersmith Ironworks, London*.—Centrifugal Irrigation Pump, as used in Austria and Hungary, throwing 1,800 gallons per minute; Centrifugal Irrigation Pump, as used in Egypt and India, capable of lifting 3,000 gallons a minute 30 feet high; other Centrifugal Pumps, throwing from 100 to 3,000 gallons per minute. (471)

BRADFORD, THOMAS, & COMPANY, 63, *Fleet Street, London*.—Washing, Wringing, Drying, Starching, Mangling, and Calendering Machinery. (472)

(See Appendix.)

BATEMAN, DANIEL, & SONS, *Lowmoor, Bradford*.—Improved Angular Wire Cards for Carding Cotton Wool and other Fibrous Substances. (433a)

MATHER & PLATT, *Salford Iron Works, Manchester*.—Twelve Colour Calico Printing Machine, with Double Cylinder Diagonal Engine and Driving Gear. (434)

(See Appendix.)

WORSSAM, SAMUEL, & COMPANY, *Oakley Works, King's Road, Chelsea, London*.—Wood-working Machines for sawing, planing, moulding, mortising, boxing, and tenoning; also Patent Mitreing Machines, Patent General Joiner, new Patent Special Machines for making parquetry flooring; Double Parquetry Edging and Grooving Machine; Parquetry Planing and Surfacing Machine; Hand Mortising Machines, Grinding Apparatus, Saw-sharpening Machine, and various models and specimens of work produced by these machines. (473)

RANSOME, A., & COMPANY, 304, *King's Road, Chelsea, London*.—Wood Working Machines; Vertical Saw Frames, Circular Saw Benches, Band Saw Machines; Planing, Moulding, Shaping, Recessing, Mortising, Tenoning, and Mitreing Machines; General Joiner's Machine; Saw Sharpening Machine; Arrangement for removing instantaneously shavings, dust, and light refuse from machinery. (474)

(See also Group XVIII.)

HUXHAMS & BROWN, *Commercial Road, Exeter*.—Mill to grind Bark for tanyards and leather dressers, by horse or steam power; Machine to roll Leather by steam power; Mill for mixing Mortar or Concrete by hand or by steam; Planing Machine for iron. (213)

(See also Group VI.)

SUMNER, J. M., & COMPANY, 2, *Brazenose Street, Manchester*.—Calico Machine; Pentagraph Engraving Printing Machine for cylinders, copper Printing Rollers, and other articles used by calico printers. (475)

THWAITES & CARBUTT, *Vulcan Ironworks, Bradford, Yorkshire*.—Double-action Steam Tilt Hammer, 7 cwt., with rapid Self-acting Motion. Roots' Patent Rotary Blowing Machine with 15-horse power Vertical Engine combined. (477)

HOMES & HICKTON, *Halesowen, near Birmingham*.—Chains of various kinds; Clip Hooks and Thimbles; Coupling Shackles; Ship Ironwork, Horse Shoe and other Nails. (478)

KERR, PRICE, & COMPANY, *Underwood and Oakshaw Mills, Paisley*.—Spooling Machine, showing the process of winding cotton on the reel; Weild's Self-acting Spooling Machine. (479)
(See also Group V.)

COLLIER, LUKE, *Wellington Works, Rochdale*.—Confectionery and Biscuit-making Machinery for steam and hand power. (480)

CROPPER, H. S., & COMPANY, *Hockley Mill, Nottingham*.—Platen Printing Machine called the "Minerva," with steam engine to drive it. (481)

BROTHERHOOD & HARDING-HAM, 53 and 56, *Compton Street, Goswell Road, London*.—Helical Pump (Boulton and Imray's Patent), with direct acting "Paragon" three Cylinder Engine, shown in operation; "Paragon" Steam Pump in action; 35-horse power "Paragon" Three Cylinder Stationary Engine; Refrigerator for Breweries; Gyroscopic Steam Governor, and Steam Throttle Valve. (482)

WILSON, ALEX., & Co., *Vauxhall Iron Works, Wandsworth Road, London*.—Steam Pumps. (434a)
(See Appendix.)

VICTORY PRINTING & FOLDING MACHINE COMPANY, *Speland Street, Windsor, and 1, North John Street, Liverpool*.—Machine for Printing from paper in the roll or web, and delivering the same printed and folded; Machine for Damping the Paper before being printed; Apparatus for Stereotyping and making the stereotype plates used in the printing. (483)

AVELING & PORTER, *Rochester, Kent, and 72, Cannon Street, London*.—Road Locomotive Crane Engine for lifting hauling, and carrying heavy weights. (484)
(See also Groups XIIIa. and XVIII.)

CLAYTON & SHUTTLEWORTH, *Stamp End Works, Lincoln; and at Vienna, Pesth, Prague, and Lemberg*.—Portable and fixed Steam Engines and Traction Engines. (568)

(See also Group XIIIa.)

WATSON, HENRY, *Highbridge Works, Newcastle-on-Tyne*.—Paper-making Machinery; Revolving Straining Apparatus, with Vat complete. (486)
(See also Group VII.)

NEW, D., & COMPANY, *Moscow Works, Nottingham*.—Lathes for Railway Wheels, Axles, &c.; Radial and other Drilling Machines; Planing, Slotting, and Shaping Machines; Pillar, Standard, and Horizontal Steam Engines, and Brass Steam Fittings. (487)

ROBINSON, T., & SON, *Railway Works, Rochdale*.—Wood-working Machinery, for Sawing, Planing, Moulding, Boring, Mortising, Dovetailing, &c., with Tool-grinding Machines. (489)

WANZER, R. M., & COMPANY, *Hamilton, Canada (represented by Doubleday, Son, & Co., Hamburg)*.—Sewing Machines. (490)
(See Appendix.)

THE WANZER SEWING MACHINE COMPANY (LIMITED), 4, *Great Portland Street, London*.—Sewing Machines. (490a)
(See Appendix.)

CLARK & COMPANY, *Anchor Thread Works, Paisley*.—Self-Acting Spooling Machine for Winding Sewing Thread on Small Bobbins or Spools. (124)
(See also Group V.)

HUGHES & KIMBER, *West Harding Street, Fetter Lane, London*.—Printing Machinery.—Lithographic Cylinder Machine; "Wharfdale" Letter-press Cylinder Machine; "Paragon" Letter-press Machine; Platen Printing Machine; Lithographic Printing Press; Guillotine Paper Cutting Machine; Rolling, Glazing, Perforating, and Paging Machines; Photographic Glazing Machine; Vertical Steam Engine and Boiler. (491)

FLEMING, T., & SON, *West Grove Mills, Halifax*.—Cards for Carding, Flax, Tow, Jute, China Grass, Hemp, Cotton, Wool, Mungo, and all other waste fibres. (492)

BARRACLOUGH, THOS., 10, *St. James's Square, Manchester*.—Spinning Machines for Twines, Cords, Ropes, of Hemp, Flax, Jute, &c.; Hackles; Woollen Rag-tearing Machines; Cotton and Woollen Yarn Printing Machine; Reed-making Machine; Wire Healds for weaving all descriptions of goods; Portable Drilling Machines; Ventilator for Mills; Blower for Furnaces. (493)

APPLEBY BROTHERS, *Emerson Street, Southwark, London*.—Steam Crane to lift 5 tons—travelling, turning, and with variable radius, price 630*l.*; Steam Feed Pump, 12*l.* 10*s.* (495)

BELL, ANDREW, 49, *Blackfriars Street, Manchester*.—Fuel Economiser, for utilising the waste heat from steam boilers. (496)

DUDGEON, A., 22, *Great George Street, Westminster, London*.—Distilling and Rectifying Apparatus (Drawings, Models, &c.). (436)

LOCKETT, LEAKE & COMPANY, *Strangeways Engraving Works, Manchester*.—Double Bar Pentagraph Machine, for engraving cylinders, with recent improvements and additions. (437)

ELLIS, WILLIAM, *Pimlico Wharf, London*.—Lath-rending, Veneer Cutting, and Embossing Machine. (438)

EASTONS & ANDERSON, *Grove, Southwark Street, London*.—Appold's Breaks, of 10 and 20-horse power, for testing the power of steam engines and other prime movers. (234)

MCNAUGHT, JOHN & WILLIAM, *St. George's Foundry, Rochdale*.—Wool-washing and Wool-drying Machines. (439)

DERHAM, T. S., 15, *Blenheim Terrace, Leeds*.—Brickmaking Machine, and Model of Brick-kiln for saving fuel. (498)

DOWS, CLARK & COMPANY, *Bedford Street and Chandos Street, Strand, London*.—Soda Water Machinery and Accessories; Iced Cream Soda Water Apparatus, Gazogenes, Syphons, Filters, &c. (499)

(See also Group XVIII.)

WILSON, J. H., & COMPANY, *Cornhill, Liverpool*.—Locomotive Steam Derrick Crane (2 tons), revolves, travels, and raises and lowers the jib by steam power; Double Cylinder Horizontal Winding Engine, suitable also for pumping and driving machinery. (500)

(See also Group XVII.)

HODGSON, GEORGE, *Bradford, Yorkshire*.—Power Looms—Plain Loom of simplest construction for great speed, for weaving Alpaca, Mohair, Silk and Worsted, in 2 to 6 treads or shafts, or different patterns; Circular Box Loom with six shuttles, and Patent Stop Motion Loom specially adapted for weaving reps; Patent Loom for production of various figured fabrics up to sixteen healds. (502)

DONKIN, B., & COMPANY, *Bermondsey, London*.—Paper Making Machine, Model made to scale of one-eighth, and worked by means of a small turbine. (503)

SHARP, STEWART & COMPANY (LIMITED), *Atlas Works, Manchester*.—Machine Tools; Screwing, Planing, Slotting, Shaping, and Slot-drilling Machines; Lathe for boring tyres, and Drilling Machine for inside of railway wheel tyres; Injectors. (504)

HOLMES & TAYLOR, 12, *Buckingham Street, Strand, London*.—Submarine Grapple and Excavator. Break and Starter for Railway and other Carriages. (505)

BUTT, J. ACTON, *Paragon Works, Ellam Road, Leeds*.—Improved "Paragon" Lithographic Machine for Chromo and

Commercial Lithography and Typography, fitted with self-acting registering apparatus, and adapted for hand and steam power. (405)

MCKEAN & COMPANY, 42, *Borough Road, London*.—Rock Boring Machine or Drill, with Air Compressor, Portable Steam Boiler, and Feed Pump for the same. (506)

HOLMES, J. E., 12, *Buckingham Street, Strand, London*.—Motive Power for driving Sewing Machines and other light Machinery, shown driving a Sewing Machine. (507)

HIND, H., & SON, *Queen's Road, Nottingham*.—Screw-cutting Gap Lathes, Slotting Machine, Shaping Machine, Planing Machine, Wall and Vertical Drilling Machines, Horizontal Boring Machine, Nut-turning Machine, Slotting Machine for Nuts, Parallel and Portable Vices, Chucks, &c. (509)

SCOTT, GEORGE, L., *Crown Ironworks, Heywood Street, West Gorton, Manchester*.—Wheel-moulding Machine and Steam Ventilator for mines. (510)

BAXTER, W. H., *Elm Cottage, Brixton Hill, London*.—Automatic Weighing Machine for Corn and other Granular Substances, and for Liquids. (511)

DUNSTON ENGINE WORKS COMPANY, *Gateshead-on-Tyne*.—Archer's Stone Breaker; Newall's Steam Ore Crusher. (512)

KIRKSTALL FORGE COMPANY, *Leeds*.—Steam Hammers. (280)
(See also Group VII. and Appendix.)

BRADBURY & COMPANY, *Oldham*.—Sewing and Embroidery Machines, adapted for various domestic and manufacturing purposes, such as the making of Hats, Caps, Boots, Millinery, and General Clothing; Appliances and Accessories for the Machines, &c., &c. (514)
(See Appendix.)

LAWRENCE, W., & COMPANY, 14, *St. Mary Axe, London*.—Refrigerators for cooling "Worts," Milk, and for purifying and cooling water; Mashers, Spargers, &c.; Models of Ships' and other Pumps; Model of Wood and Malortie's Patent Fuel Economizing Furnace; Water Boiling, Purifying, and Cooling Apparatus. (515)
(See also Group XVIII. and Appendix.)

DAVIS & PRIMROSE, 68, *Duke Street, Leith*.—Double-acting Steam Hammer for general forging purposes in smiths' shops. (516)

SIBREE, PETER, *Great Driffield, Yorkshire*.—Hydraulic Press for extracting Oils, with Steel Moveable Cylinders, and Double Pumps, Stops, &c. (517)
(See Appendix.)

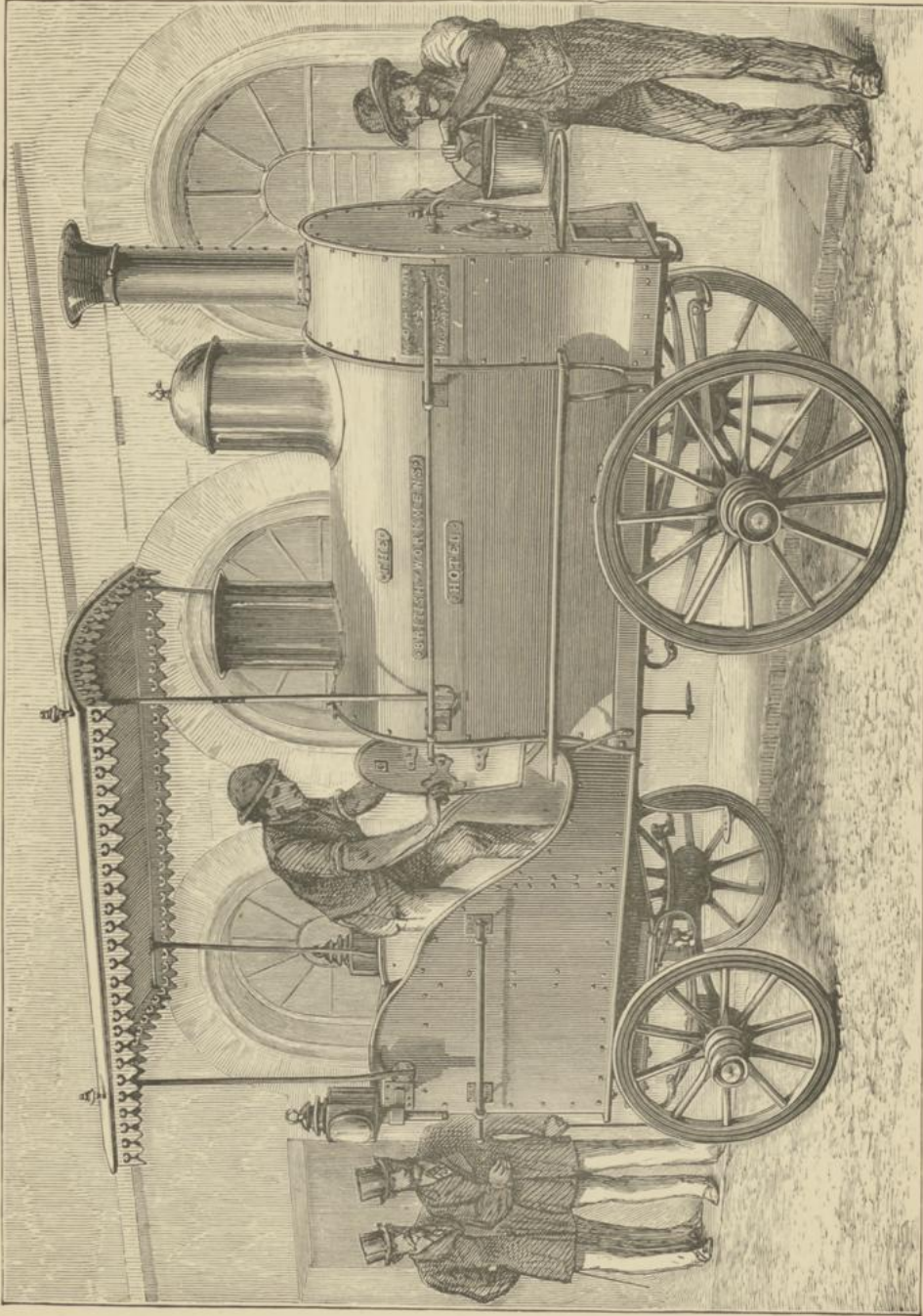
BERTRAM, J., & SON, *Leith Walk Foundry, Edinburgh*.—Patent Apparatus for Straining Pulp for Paper Making. (518)

HOPTON, H., & SON, 67, *George Street, Euston Square, London*.—Bent Carriage Shafts, Wheels, Bent Woodwork, and other Materials of Carriage building. (519)

ADAMS, R., 31, *Strutton Ground, Westminster, London*.—Portable Cooking Apparatus, called the "British Workman's Hotel," for baking and boiling meat, and baking, boiling and steaming vegetables, and for making tea and coffee; on wheels, and drawn by one horse. (522)
(See Illustration.)

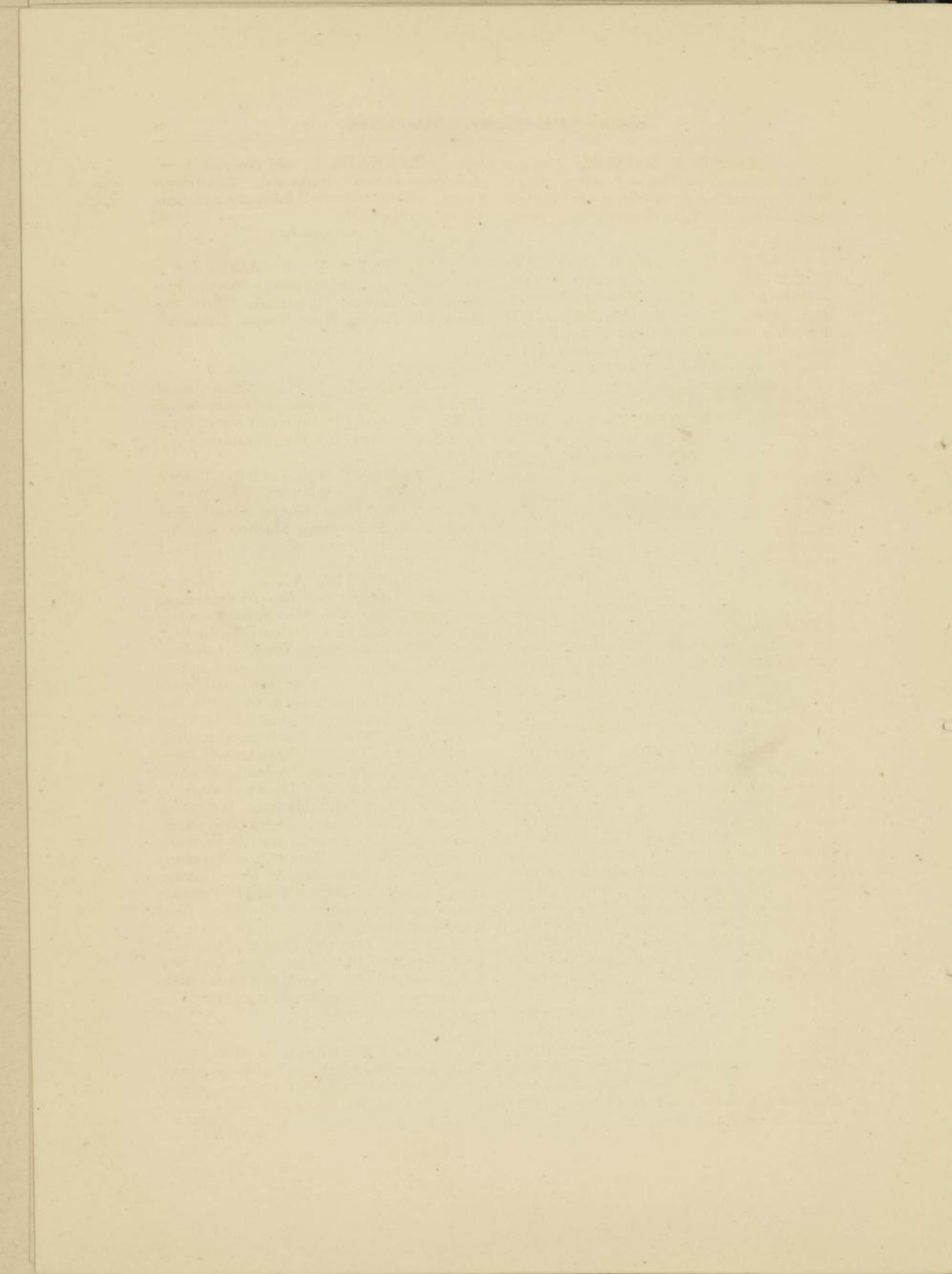
DAVIES, D., *Viaduct Works, Crumlin, Newport, Monmouthshire*.—Patent Self-acting Steam Strikers of three sizes, may be worked also by compressed air or water, to replace ordinary hand strikers and constructed to strike at any angle to the face of the anvil; can be arranged to act upon a circle of four or more anvils or swage blocks. (497)

KAULBACH, E., 39, *Maddox Street, Regent Street, London*.—Model of Improved Steam Engine and Boiler. (406)



“ THE BRITISH WORKMEN'S HOTEL.”

A complete Cooking Apparatus, designed and constructed for Her Majesty's Commissioners, by
RICHARD ADAMS, Strutton Ground, Westminster.



HESLOP & WILSON, *Lombard Street, Newcastle-on-Tyne*.—Portable Steam Mill, for grinding or crushing ore, fettling mortar, clay, chalk, or chemical substances. (236)

ARMSTRONG, SIR W. G., & COMPANY, *Elswick Works, Newcastle-on-Tyne*.—Models of Pumping Engine, Accumulator, Hydraulic Crane, Hydraulic Jack, Hydraulic Capstan and Engine of a Bridge, and of Grain Distributing Machinery. (561)
(See also Groups XVI. and XVII.)

TYLER, HAYWARD, & CO., 84, *Whitecross Street, London*.—Patent Steam Pumps. (521)

GWYNNE & COMPANY, *Essex Street Works, Strand, London*.—Gwynne's Patent Centrifugal Pumping Engine; Gwynne and Beale's Patent Combined Gas Exhauster and Engine; Double-Action Centrifugal Pumps; Hydraulic Rams; Girard's Patent Turbine Water Wheel; Hydraulic Engines. (523)

BROWN BROTHERS & COMPANY, *Rosebank Ironworks, Edinburgh*.—Steam Donkey Pump; Combined Steam and Hydraulic Crane. (524)

HATHORN, DAVIS & CAMPBELL, *Sun Foundry, Leeds*.—Steam Donkey Pump. (412)

MERRYWEATHER & SONS, 63, *Long Acre, London*.—Steam and Hand Fire Engines, including such as are used by the London Fire Brigade. (525)

WARNER, JOHN, & SONS, 8, *Crescent, Cripplegate, London*.—Hydraulic Machinery; Sanitary Apparatus; Hand, Steam, and Horse Power Pumps; Wind Engines; Water Wheels; Fire Engines; Hydraulic Rams; Garden Engines, &c.; Water Barrows; Boring Tools; Water-Closets, Lavatories, Urinals, Baths; Steam Engine Fittings; Bells. (526)
(See Appendix.)

SHAND, MASON & COMPANY, 75, *Upper Ground Street, London*.—Steam and other Fire Engines, as used by the London Fire Brigade, &c. Portable Fire Pumps; Hose, Pipes, Buckets, Helmets, and Implements used by Fire Brigades. (527)

BERNAYS, J., 96, *Newgate Street, London*.—Patent Improved Centrifugal Pump, with effective self lubrication to inner bearings of spindle. (528)

(See Appendix.)

HAYNES, T., & SONS, 227 to 231, *Edgware Road, London*.—Pumps; Fire Engines; Patent Hydronette Fire Extinguisher, Garden Hose Barrow, Hose, &c. (529)

(See Appendix.)

TWIBILL, JOSEPH, *Chester Road, Manchester*.—Fuel Economiser for Steam Boilers, Plans and Drawings of same, Pipes for Steam Boilers, and Pipe Scrapers. (530)

PATENT MACHINE STONE DRESSING COMPANY (W. Payton, Manager), 21, *Great George Street, Westminster*.—Stone Dressing Machine and Apparatus. (531)

GABRIELLI, A., 4, *Westminster Chambers, London, and Bau-Unternehmung der Wasserleitung, Neue Markthalle, Vienna*.—Air Cock and Air Valve, Self-acting, made by Simpson & Co., Pimlico, London; Ball Cocks, equilibrium, made by Lambert & Son, Lambeth, London; Screw and Street Cocks, made by Simpson & Co.; Bib and Stop Screw Down Cocks, and Loose Valve Cocks, made by Guest & Chrimmes, Rotherham, England; Ferrules, Straight and Elbow, and Union Joints, made by Stock, Brothers & Taylor, Birmingham; Hydrants made by Simpson & Co., and Hydrant Indication Plate by John Barnes, Norwich; Hose, Hose-pipe, and Branch and Keys made by Simpson & Co; Meters, Low Pressure, made by W. Parkinson & Co., Cottage Lane, London; Siemen's High Pressure Meter, made by Guest & Chrimmes; Lead Pipes and Pipe Guards; Urinals made by G. Jennings, London; Water-pillar, with High Pressure Meter, &c., made by Guest & Chrimmes; Water Closets complete, made by the City of Norwich Waterworks Co., and Guest & Chrimmes. (533)

GREEN, EDWARD, & SON, 14, *St. Ann's Square, Manchester*.—Fuel Economiser, for using the waste heat of boilers. (534)

(See Appendix.)

MARSDEN, H. R., & COMPANY, *Soho Foundry, Leeds*.—Stone Breaker and Ore Pulverizer, for hand or steam power. (790)

DENNIS & COMPANY, 19, *Holborn, London*.—Steam Sentinel, for the prevention of boiler explosions; Improved Pneumatic Fire Extinguishers. (614)

KENNEDY'S PATENT WATER METER COMPANY (LIMITED), *Kilmarnock*.—Water Meters. (532)

JOHNSON & ELLINGTON, *Chester*.—Hydraulic Warehouse Crane, 25 cwt., with jib; Patent Duplex Whipping Hoist, 6 to 12 cwt., eighty lifts per hour, both worked by accumulators. (459)

(See Appendix.)

PAYTON, WILLIAM, 21, *Great George Street, Westminster*.—Safety and Relief Valves; Apparatus for moving and turning blocks of stone, and other heavy bodies. (559)

INGHAM, J., & SONS, *Thornton, near Bradford*.—Shuttles and Pickers for weaving and belting; Strappings and Springs for machinery. (537)

HOLT, H. P., C.E., *Royal Insurance Buildings, Leeds*.—Patent Combined Elastic Steel Diaphragm, and Relief Frame for equilibrating or balancing ordinary Slide Valves and Expansion Gear, applicable to all old and new Engines. (538)

HILL & SMITH, *Brierley Hill Iron Works, Staffordshire*.—Hammered Iron Engine Forgings, Shafts, Axles, and various kinds of Railway Ironwork. (293)

(See also Group VII.)

IRVIN & SELLERS, *Preston, Lancashire*.—Bobbins, Boxwood Bosses, Pickers, and Shuttles. (540)

SIMON, H., C.E., 7, *St. Peter's Square, Manchester*.—Cramps (Stroudley's patent), to facilitate the replacing of locomotives and carriages that have gone off the rails. (541)

(See also Group II.)

WHITLEY PARTNERS, *Railway Works, Leeds*.—Steam Engine and Boiler Accessories; Allen's Steam Engine Governors and Valves; Peet's Valve Taps for Steam, Water, and Gas Pipes and Mains; Crossley & Hanson's Self-acting Reducing Valves; Berryman's Machines for Heating and Regulating the Feed Water for Boilers; Berryman's Steam Traps; Waters's Feed Water Heaters; Patent "Power Jumpers;" Hanson's Variable Expansion Gear; The "Best" Steam Boilers; Rodgers's Wrought Iron Split Drums; Pitt's Centring and Facing Machines; Walkington's Compound Tool Boxes for Planing Machines; Martin's Anchors; Common's Automatic Apparatus for the prevention of pipes bursting from frost; Cameron's "Special" Steam Pumps; Field's Boiler Tubes; Field & Cotton's "Direct-expansion" Compound Engine; Westray's Portable Drills; Hodgson's Radial Hand Drills; Denison's Suspended Weighing Machines; Dudgeon's Tube Expanders; Gresham's Injectors; Farron's High Pressure Taps; Farron's Pressure Diminishing Valves; Webb's Water Gauges for Steam Boilers; the "Oxygen" Furnace Bar for economizing fuel; Smyth's Self-acting Motor for driving Sewing and other Machines; Haines's Lead-encased Block-tin Piping; The "Vaughan" Self-acting Water Ejectors; Bessemer Emery Wheels; Direct-acting Swivel-arm Engine Indicators; Weston's Ratchet Braces; Taylor's Engine Counters; Taylor's Speedometers; Chandler's Compound-lever Ball Valves; Field's Disc-lip Valves; Whitley's Valve Lubricators; Ripley & Wormald's Tube Wrenches; Allen's Angular-cut Rasps; l'Extincteur; Gun-metal Fittings and Mountings for Locomotive, Marine, Stationary, and Portable Engines and Boilers; Wrought Iron, Brass, and Copper Tubes; Halkyn Mountain Hydraulic Lime, and Pwll Melyn Roman Cement; Lap-Welded Iron Boiler Tubes; Asbestos Steam Packing. (542)

(See Appendix.)

BESSEMER STEEL AND ORD-
NANCE COMPANY (LIMITED), 17, *Grace-
church Street, London.*—Steel Rails, Tyres,
Forgings, &c. (543)

FOX, WALKER & COMPANY,
Atlas Engine Works, Bristol.—Locomotive
Engine, specially designed for Narrow Gauge
Railways, with Adams's radial axle boxes,
and improved central couplings for sharp
curves. (544)

DERING, GEORGE E., *Lockleys,
Welwyn, Hertfordshire.*—Patent Spring Clip,
Rail Joints. (545)

DE LORIERE & COMPANY, 1,
Victoria Street, London.—Double-Purchase
Crane, constructed on a new principle of
prime motion. (546)

THOMSON & COMPANY, *Crown
Iron Works, Glasgow.*—Buffers, Bearing
Springs, and Draw Springs, with Machine
for testing the same. (563)

NORMAN, S. W., 116, *Westminster
Bridge Road, London.*—Model of Tramway
Car, a new method of shunting and of steering
the carriage or engine over curves and
angles. (547)

(See also Group V.)

WELCH, A., 11, *Bank Buildings,
Metropolitan Cattle Market, London.*—Rail-
way Cattle Wagons fitted with appliances
for stalling, feeding, and watering the
animals (models). (548)

HUGHES, H., & COMPANY,
Falcon Works, Loughborough.—Tank Loco-
motive Engine. (549)

HADFIELD, R., *Ecla Foundry,
Attercliffe, Sheffield.*—Double disc Railway
Wheel, in which the Tyre is welded to the
centre. (791)

(See Appendix.)

DEWRANCE, J., & COMPANY,
176, *Great Dover Street, Southwark, London.*
—Steam, Hydraulic, and Vacuum Gauges;

Autographic Pressure Recorders; Injectors;
Engine Counters, Salinometers, Engine
Thermometers, Sand Pumps, Contracting
Pump Bucket, Water Meters, Steam and
Water Fittings; Babbitt's and Dewrance's
Anti-Friction White Metals for lining bear-
ings; Steam Launch Engines and Boilers.
(550)

PETERS, THOMAS, & SONS, 53,
*Park Street, and Upper George Street, Gros-
venor Square, London.*—Five Carriages—
Calèche, or Park Barouche, on eight springs;
Coupé d'Orsay, on eight springs; Coupé,
or Brougham, on elliptical springs; Mail
Coach, with hand brake, luncheon box,
and wine cisterns; Mail Char-à-Bancs, with
hand brake. (551)

WINDOVER, C. S., 32 and 33,
Long Acre, London.—Parisian Phaeton with
removeable seats and head, lunch basket,
&c.; Denmark Phaeton with moveable hind
seat. (552)

SHANKS, F. & R., 70 and 71, *Great
Queen Street, London.*—Four-horse Drag,
to lock shorter than usual; Small Sociable
Landau, and Driving Phaeton with patent
head. (553)

STREETER, EDWIN W., 37, *Con-
duit Street, London.*—Patent Communicator
for Carriages, superseding the Check-string
and Speaking-tube, and affording means of
instant communication with the coachman
without diverting his attention from the
horses. (655)

EVANS, JAMES, 46, *Seel Street,
Liverpool.*—Improved Hansom Cab. (555)

MOY & SHILL, 1, *Clifford's Inn,
London.*—Aërial Machine—Working Model,
exhibiting method of navigating the air by
rotating aëroplanes, without the aid of gas,
The Model is driven by a pair of "Patent
Non-radiating" Steam Engines of 4 indi-
cated horse-power, but weighing only 28 lb.
(556)

THORN, C., *St. Giles's Gate
Norwich.*—Norfolk Shooting and Baggage
Cart, and "Lorne Car" with patent adjust-
ing shafts, &c. (557)

MULLINER, H., *Leamington Spa, Warwickshire*.—Park Phaeton, Sporting Dog Cart Phaeton, and light Dog Cart. (558)

HOLLAND, E., & COMPANY, *Onslow House, Fulham Road, London*.—Trucks, Trolleys, &c. (560)

HUTTON, JOHN, & SONS, *Summer Hill, Dublin*.—Irish Car. (615)

ROBERTS, JOHN, & SONS, *West of England Carriage Works, Bridgewater*.—Whitechapel Dog Cart. (562)

CLARKE, EDWARD, *Patent Crank Works, Lincoln*.—Steam Engine Fittings, Forgings, &c. (376)

BLEZARD, JAMES, & SONS, *Padiham, Lancashire*.—Temples used on Looms for Weaving Cotton, Woollen, Linen, and Silk Goods. (616a)
(See also Group XXVI.)

SIEBE & GORMAN, 5, *Denmark Street, Soho, London*.—Ice-making Machine. (681)
(See also Group XVIII.)

SIEBE & WEST, 17, *Mason Street, Lambeth, London*.—Ice Making Machines. (428)

NEW MILKING MACHINE COMPANY (LIMITED), *Sheffield*.—Milking Machine. (429)

STORER, JOSEPH, *Hammersmith, London*.—Self-acting Table Fountains (shown in Mr. Rimmel's case, Group III.) (50*)

WHITWORTH, SIR JOSEPH, & COMPANY, *Manchester*.—Photographs of Machinery. (501)

SMITH & COVENTRY, *Manchester*.—Photographs of Machinery. (513)

WILLIAMS & COMPANY, (LIMITED), 33, *King William Street, London*.—Lawn Mowers called "Archimedean," adapted for long and wet as well as short and dry grass, for hand and pony use. (588)

BROWN, J. B., & COMPANY, 90, *Cannon Street, London*.—Lawn Mowing Machines. (306)
(See also Group VII.)

FOLLOWS & BATE, *Dutton Street Works, Manchester*.—Lawn Mowing Machines, for hand and horse power. (578)
(See also Group XIIIa.)

BARNARD, BISHOP & BARNARDS, *Norfolk Iron Works, Norwich*.—Patent Lawn Mowers. (295)
(See also Group VII.)

MILBURN, WILLIAM, 7, *Todd Street, Corporation Street, Manchester*.—Lawn Mowing, Rolling and Collecting Machines. (607)

PAGE, E., & COMPANY, *Victoria Iron Works, Bedford*.—Brick and Pipe Making Machines; Peat-Pressing Machines. (609)
(See also Group XIIIa.)

MIDDLEMORE, W., *Holloway Road, Birmingham*.—Machine Belting. (219)
(See also Group VI.)

NEWTON, GOUGH & COMPANY, *Manchester*.—Machine Driving Belts. (215)
(See also Group VI.)

HAZELDINE BROTHERS, 5, *Lant Street, Borough, London*.—Two Parcels Delivery Carts, of different designs, as used by Railway Companies and Carriers in Great Britain. (539)

GROUP XIIIa.

Agricultural Machinery.

BOBY, R., *St. Andrew's Works, Bury-St.-Edmund's*.—Barley Hummeller, Corn Screens, Corn-dressing Machines, Haymaking Machines, Hand Seed Drills, Malt Screens, Cask Bushes. (566)

ROBEY & COMPANY (LIMITED), *Perseverance Iron Works, Lincoln*.—Portable, Vertical, and Horizontal Engines; Thrashing Machines, with iron frames; Straw Elevators (Harvest Stackers); Corn Grinding Mills; Wood Sawing Machinery; Maize Sheller. (567)

(See Appendix.)

CLAYTON & SHUTTLEWORTH, *Stamp End Works, Lincoln; and at Vienna, Pesth, Prague, and Lemberg*.—Portable and Fixed Steam Engines and Traction Engines; Portable Thrashing Machines; Elevators for Straw, Hay, and Sheaf Corn; and other Agricultural Machinery. (568)

(See also Group XIII.)

AVELING & PORTER, *Rochester, Kent, and 72, Cannon Street, London*.—Agricultural Road Locomotive Engine with cylinder surrounded by steam and compensating gear for turning sharp corners, &c. suited for hauling heavy loads or driving fixed machinery; two waggons for use with the locomotive. (484)

(See also Groups XIII. and XVIII.)

HOWARD, J. & F., *Bedford*.—Steam Ploughing and Cultivating Apparatus; Ploughs for all purposes; Grass, Seed, and Drag Harrows; Haymaking Machines; Horse Rake; Mowing and Reaping Machines. (442)

(See also Group XIII.)

SMYTH, J., & SONS, *Peasenhall, Suffolk*.—Corn, Beet and Manure Drills; Broadcast Corn and Seed Sowing Machines; Manure Distributors. (570)

FOWLER, J., & COMPANY 71, *Cornhill, London*.—Steam Ploughing Apparatus complete, and Steam Traction Engines; Clip-drums, &c. (571)

TURNER, E. R. & F., *St. Peter's Ironworks, Ipswich*.—Steam Engines, fixed and portable; Thrashing and Dressing Machine; Corn Grinding, Crushing and Kibbling Mills; Oil Cake Breakers; Maize Shellers, and Kibblers. (572)

HOUGHTON, W., & COMPANY, *Victoria Mills, Great Grimshy*.—Aspirator, Separator, Smutter, combined, for cleaning grain, two sizes. (573)

BAKER, J., *Falcon Works, Wisbeach*.—Corn Dressing and Screening Machines, made by Special Steam Machinery, and suitable for all Countries. (574)

MARSHALL, SONS, & COMPANY (LIMITED), *Gainsborough, Lincolnshire*.—Steam Engines, portable and fixed; Thrashing Machines, Corn Mills, Circular Saw Bench, and Sack-lifting Barrow. (575)

NICHOLSON, W. N., & SON, *Trent Ironworks, Newark*.—Portable Steam Engine, 8-horse power; Vertical Combined Engines and Boilers of 1 to 4-horse power; Haymaking Machines, Self-acting and other Horse-Rakes, Tunnies and Root Cutters, Chaff Cutters, Oilcake Breaking Machine, and Winnowing Machine. (577)

FOLLOWS & BATE, *Dutton Street Works, Manchester*.—Chaff Cutter, Corn Grinding Mills, Meat Choppers and Mincers, Knife Cleaners. (578)

(See also Group XIII.)

RUSTON, PROCTOR & COMPANY, *Sheaf Iron Works, Lincoln*.—Portable, Fixed, and Vertical Steam Engines, with patented improvements; Thrashing Machines, Patent Adjustable Corn Screens, Corn Grinding Machines, Maize Shellers; Wood Sawing Machinery, &c. (579)

(See Appendix.)

RANSOMES, SIMS & HEAD, *Orwell Works, Ipswich*.—Portable Steam Engines for economising Fuel, for Burning Wood and Lignite, and for Straw alone; Steam Thrashing Machines for finishing the Corn for market, for export, also for hot countries, with apparatus for chopping and bruising the straw for fodder; Horse Rakes, and Haymakers; Double and Single Horse and Bullock Ploughs, especially adapted for the large corn districts of the east. (580)

COLEMAN & MORTON, *London Road Ironworks, Chelmsford, Essex*.—Cultivators for light, mixed, and heavy soils; Corn Screen for separating grain; Potato Digging Machine, Manure and Water Carts, Oil Cake Breakers, Hay Elevator, &c. (581)

HUNT & TAWELL, *Atlas Works, Earls Colne, Essex*.—Clover Seed Drawer; Chaff Bruising Mills; Cutters; Root Gardner Turnip Cutters; Horse Gears; Pulpers; and combined Oat and Bean Mill. (582)

LEWIS & COMPANY, *Salopian Ironworks, Shrewsbury*.—Mowing and Reaping Machines, Chaff Cutters, Ploughs, Oil Cake Breaker, Root Pulpers, Turnip Cutters and Slicers. (583)

SAMUELSON & COMPANY, *Britannia Works, Banbury*.—Self-Raking Reaping Machines, and Grass Mowing Machines. (584)

BAMLETT, A. C., *Thirsk, Yorkshire*.—Reaping Machine; Self-Raking Combined Mowing and Reaping Machine; Manual Delivery Reaper. (585)

HORNSBY, R. & SONS, *Spittlegate Iron Works, Grantham*.—Patent Portable Steam Engines; Thrashing, Shaking and Finishing, Dressing Machines; Reaping and Mowing Machines; Corn and Seed

Drills and Manure Distributors; Ploughs; Washing, Wringing, Mangling Machines, &c. (587)

(See Appendix.)

WEETMAN, JOHN, *Vulcan Iron Works, Ipswich*.—Portable Vertical Steam Engine; Thrashing Machine; Horse Rake, with corn and seed distributor, harrow, and weed extirpator; Cultivator, &c. (589)

COULTAS, J., *Spittlegate, Grantham*.—Beetroot Drop Drill, with Artificial Manure Apparatus; Wright's Patent Potato Planter; Royal Corn and Seed Drill; Corn Broadcast Sowing Machine. (590)

PENNEY & COMPANY (LIMITED), *Lincoln*.—Patent Adjustable Rotary Corn-Screens; Seed-dressing Machine; Canadian Cast Steel Forks, Hoes, and Rakes. (591)

WOODS, COCKSEGE & WARNER, *Suffolk Ironworks, Stowmarket*.—Crushing and Grinding Mills for grain, linseed, beans, &c., for steam power, price 18*l.* 18*s.* Ditto for horse or two-man power, 12*l.* 12*s.* Ditto for one man, 9*l.* 4*s.* Linseed and Malt Mill, price 7*l.* 4*s.* "Universal" Mill, worked by a big boy, 6*l.* 15*s.* Portable Combined Steam Engines and Boilers, 95*l.* 10*s.* Corn Mill, with French burr stones, 26*l.* Oilcake Breakers, 3*l.* 10*s.* and 7*l.* Horse Gear 15*l.* 15*s.* Root Pulpers, 3*l.* 12*s.* 6*d.* to 5*l.* Thrashing Machine, for horse-power, 37*l.* (592)

CLARKE & DUNHAM, 48, *Mark Lane, London*.—Grain-Cleaning Machines—Smut Machine, Separator, Sorter, Wirework, Millstone, Millstone Balance, Steel Smelt Wire, and Mill Bills; Needle Lubricators. (593)

GARRETT, R., & SONS, *Leiston Works, Suffolk*.—Portable Steam Engines and Thrashing Machinery; Corn-drills, Horse-hoes, Manure Distributors. (594)

RICHMOND & CHANDLER, *Salford, Manchester*.—Chaff-cutting Machines, Crushing Mills, and Horse Gear. (595)

WALLIS & STEEVENS, *Basingstoke*.—Portable Steam Engine, 8 horse power, with Patent Feed Water Heater,

price 280*l.*; Portable Steam Thrashing and Finishing Machine, price 160*l.*; Horse-power Thrashing Machine, 76*l.* 10*s.*; Model of Patent Folding Elevator. (596).

CORCORAN, BRYAN, WITT & COMPANY, 28, *Market Buildings, Mark Lane, London.*—Corn Grinding Mill, with French Burr Stones, Smutting Machine and Corn Screen, and Wheat Separator; Chondrometer, with English, Austrian, or other scale, for ascertaining the Weight of Corn per bushel, &c.; Hand Drill and Seed Sower. (597)

(See also Group VII.)

WILLSHER, JOHN CHAPLIN, *Brain-tree, and 40, Gracechurch Street, London.*—Steam Engine; 8-horse power Expansion Portable Engine, with Enlarged Firebox; 8-horse power Portable Combined Thrashing and Corn Dressing Machine, to prepare corn for market. (599)

EDWARDS, G. B., *High House, Bredfield, Woodbridge.*—Drills for dropping beetroot seed in tufts or bunches; Drills for dry manure. (600)

CLARK BROTHERS & ODLING *Kirke White Street, Nottingham.*—Beaters for Thrashing Machines; Malleable Iron Castings. (601)

LEWIN, S., *Poole, Dorsetshire.*—Steam Engines, portable, fixed, and marine; Thrashing Machines and Elevators; Waggon Loader, Ploughs, and Circular Saw Bench; Portable Engine, 4-horse power, similar to the above-mentioned, with Thrashing Machine suitable for such engine; Strong and Simple Chaff Cutter. (602)

BARFORD & PERKINS, *Queen Street Iron Works, Peterborough.*—Corn Grinding Mills, Oil Cake Mills, Rollers; Steam Cooking Apparatus; Models of Road-roller, Steam Plough, and Campaign's Anchor for Steam Cultivation. (603)

FOSTER, W., & COMPANY, *Wellington Foundry, Lincoln.*—Eight horse Portable Steam Engine; Portable Thrashing Machine. (604)

REID, B., & COMPANY, *Bon Accord Works, Aberdeen.*—11-row Patent "Disc" Corn and Seed Drill; 10-foot

Patent "Disc" Broadcast Sower, with Axle for transport; Winnower and Corn-dressing Machine; Patent 3-row Combined Beetroot and Manure Drill; Beetroot Raiser; Model of Wire Suspension Bridge, and Straining Pillar for Wire Fences; Models. (605)

READING IRON WORKS (LIMITED), *Reading, Berkshire.*—Fixed Steam Engine of 25-horse power, fitted with Condenser and variable Expansive Valve; fixed Engines of 10, 4, and 2-horse power; Portable Engine with special economic arrangements; Combined Steam Power Thrashing Machine; Horse Power Thrashing Machine for three light horses; Patent Safety Cylindrical Horse Worker; Hand Power Thrashing Machine, &c. (447)

(See also Group XIII.)

DAVEY, PAXMAN & COMPANY, *Standard Ironworks, Colchester.*—Patent Vertical Engine, known as the "Davey-Paxman" Engine, with Boiler, Baffle Plate to regulate draught, and Water Tank Heater; Patent Steam Corn Dryer. (Boiler lent to Royal Commissioners for use.) (608)

PAGE, E., & COMPANY, *Victoria Iron Works, Bedford.*—Ploughs, Harrows, Horse Rakes, Root Pulpers, Oat and Maize Mills, Oil Cake Mill, &c. (609)

(See also Group XIII.)

MURRAY, G. W., *Banff, Scotland.*—Thrashing Machines for horse and hand-power; Endless Chain Pump for lifting thick and other liquids; "Horse Gear" Double-furrow Plough, and combined Plough and Subsoiler, on antifricition wheels; Fencing Wire Straining Brackets for wood and iron posts. (610)

(See also Group VII., and Appendix.)

NALDER & NALDER (LIMITED), *Challow Ironworks, Wantage, Berkshire.*—Combined Steam-power Thrashing and Dressing Machine for preparing grain for market. (611)

BURGESS & KEY, *Holborn Valley Viaduct, London.*—Reaping Machine for two horses, invented by Mr. C. McCormick of the United States of America, and made by exhibitors, delivers the corn, when cut in sheafs, clear of horses' feet; these machines are also adapted for light horses or bullocks. (612)

BAKER, T., *Whitehall Iron Works, Compton, Berks.*—Double Blast Corn Dressing and Winnowing Machine, with six Wire Sieves to suit different descriptions of Corn. (613)

BRIGHAM & COMPANY, *Tweed Implement Works, Berwick-on-Tweed.*—Mowing Machine, the "Star," 17l. 10s.; Reaping Machines; Self-acting "Improved Excelsior," 34l. (237)

GROUP XIV.

Philosophical, Surgical Instruments.

MATHEMATICAL, ASTRONOMICAL, PHYSICAL, AND CHEMICAL INSTRUMENTS (Instruments for Measuring, Weighing, and Dividing, for Optical Purposes and Electric Telegraphy). SURGICAL INSTRUMENTS AND APPARATUS (Artificial Limbs, Teeth, &c.). HOROLOGICAL INSTRUMENTS, CLOCKS, WATCHES, AND THEIR PARTS (Chronoscopes, Chronographs, Electric Clocks). STATISTICS OF PRODUCTION.

COOKE, T., & SONS, *Buckingham Works, York.*—Portable Equatorial Telescopes on Tripod Stands. Theodolite and Engineers' Levels. Large Clocks for use of Royal Commission. (621)

PILLISCHER, M., 88, *New Road Street, London.*—Microscopes and their Appliances; Telescopes; Field and Opera Binocular Glasses; Meteorological Standard Instruments; Aneroid Barometers and Barometrographs; Mathematical, Philosophical, Electrical and Surveying Instruments; Magnetic Compasses; Scales and Rules; Spectacles and Eyeglasses. [Rotunda.] (622)
(See also Group VII.)

SIEMENS BROTHERS, 3, *Great George Street, Westminster.*—Telegraph Apparatus and Materials; Tubular Iron and Wooden Poles with Insulators; Voltmeter, with Pyrometer; Electrical Apparatus for deep sea measurements; Electrical Alarums; Lightning Discharger; Mine and Torpedo Exploding Apparatus; Electrical Batteries; Deep Sea Thermometers; Pneumatic Signal Apparatus; Submarine Cable Specimens; India-rubber and Gutta-percha in stages of manufacture, &c. (623)

HOOPER'S TELEGRAPH WORKS (LIMITED), 31, *Lombard Street, London, Works: West Ham, Mitcham, Surrey, and Millwall Docks, London.*—Submarine Telegraph Cables, and Telegraph Materials and Apparatus; India-rubber Core, for submarine and other lines. (627)

AHRENS, BERNHARD, 24, *Ludgate Hill, London.*—Electro-magnetic Billiard Marker, Scorer, Indicator, and Detector. (628)

RABONE, J., & SON, *Whitmore Street, Hockley, Birmingham.*—Rules in Boxwood, Ivory, Brass, and Steel; Plumb and Spirit Levels; Measuring Tapes; Joiners' Squares, Bevels, Surveyors' Land Chains. (630)

(See Appendix.)

THE INDIA RUBBER, GUTTA PERCHA & TELEGRAPH WORKS, COMPANY (LIMITED), *Silvertown, Essex, and 100, Cannon Street, London.*—India Rubber and Gutta Percha Manufactures; Submarine and Torpedo Telegraph Cable; Insulated Telegraph Wires. (775)

(See also Group VI.)

TELEGRAPH CONSTRUCTION AND MAINTENANCE COMPANY (LIMITED) (per Baron Erlanger), *Rue Tailbout, Paris*.—Telegraph Cables. (616)

ASH, C., & SONS, 7, 8, 9, *Broad Street, Golden Square, London*.—Mineral Teeth, Dental Instruments, Tools, and Appliances. (631)

REIN, C. F., & SON, 108, *Strand, London*.—Acoustic, Surgical and Veterinary Instruments; Respirators; Reservoir Enemas; Eye Fountains and Douches; Syphons and Breast Pumps; Bougies and Catheters; Thethoscopes; Medical Inhalers; Instruments for Deformities; Anatomical Belts, Stockings and Bandages; Trusses, Crutches, Arm Slings, &c. Magneto-Electric Machines for nervous diseases. Elastic Appliances for surgical purposes. Speaking Tubes and Trumpets. [Rotunda.] (632)

REIN, MRS. C. F., 108, *Strand, London*.—Anatomical Belts, Artificial Breasts, Elastic Stockings for varicose veins, &c.; Trusses of all descriptions, Bandages, and other appliances for surgical purposes. [Rotunda.] (633)

GRAY, PHILIP, 7, *Cork Street, Burlington Gardens, London*.—Automatic Articulation applied to the construction of Artificial Limbs; Artificial Limbs suited to various amputations. (634)

(See Appendix.)

WARD, J., *Leicester Square, London*.—Invalid Chairs—locomotive, portable, recumbent, &c.; Children's Perambulators. (636)

PULVERMACHER, ISAAC L., 168, *Regent Street, London*.—Electric Galvano Bands, Chains, Volta-Electric Pocket Batteries; Faradaic Pocket Induction Apparatus. (637)

(See Appendix.)

GABRIEL, MESSRS., 64, *Ludgate Hill*; and 56, *Harley Street, Cavendish Square, London*.—Artificial Teeth and specimens of Mechanical Dentistry. (638)

OCLEE, F. H., 31, *New Bailey Street, Salford*.—Mechanical Self-acting

Bust for showing Artificial Teeth, Specimens of Teeth, &c. (639)

(See Appendix.)

SALT & SON, 21, *Bull Street, Birmingham*.—Trusses; Umbilical Belts for Rupture; Truss Pads made by machinery, without sewing. (640)

KLAFTENBERGER, C. J., 157, *Regent Street, London*.—Marine and Pocket Chronometers, Clocks, and Watches; Watches, for scientific and other purposes—Chronographs, Automaton Seconds, Minute Repeaters, Perpetual Calendar Watches, &c.; Watch Chains and Seals. (641)

KULLBERG, V., 105, *Liverpool Road, London*.—Marine Chronometers with improved balances for extremes of temperature; Keyless Pocket Chronometers, and Lever Watches; Chronograph, Calendar Watch, &c. (643)

WEICHERT, WILLIAM, 119, *Rothsay Terrace, Bute Docks, Cardiff, Wales*.—Marine Chronometers; Chronometer, Barometer and Thermometer combined; Keyless Pocket Chronometers, and Lever Watches. (644)

FRENCH & COMPANY, 9, *Royal Exchange, London*.—Chronometers, Repeating and other Watches, in gold and silver cases. (645)

GREENWOOD, J., & SONS, 6 and 7, *St. John's Square, Clerkenwell, London*.—Clock, going eight days, chiming quarters and music, in Louis XIV. marquetric case. Designed by Maréchal, manufactured by exhibitors. (647)

ADAMS, W. MARSHAM, 3, *Pennistone Street, Shepherd's Bush Green, London*.—Mensurator and Coelometer. (586)

SIVEL & WALTER, 121, *Patrick Street, Cork*.—Marine Chronometer with improved auxiliary compensation balance wheel. (649)

LOZADA, J. R., 105, *Regent Street, London*.—Marine Chronometers, Watches, and Clocks. (655)

LANG, D., & COMPANY, 27, *Houndsditch, London*.—Surgical Instruments. (435)

GROUP XV.

Musical Instruments.

MUSICAL INSTRUMENTS. PARTS OF THEM (Strings, Bows, Moulding Boards, Membranes, Keys, Pipes, &c.). SOUND CARRYING APPARATUS (Speaking Pipes, Signal Whistles, &c.). BELLS, CHIME OF BELLS. STATISTICS OF PRODUCTION.

(*Vide* Additional Exhibition, No. 3.)

ATKINS, CHARLES, & COMPANY, 1, *Water Lane, Great Tower Street, London*.—Metal Head Side Drums. (650)

IVORY, H, A., & COMPANY, *Wood Green, Tottenham, London*.—Pianofortes. (651)

KIRKMAN, J., & SON, 3, *Soho*

Square, London.—Pianofortes of various descriptions. (652)

BLEWS, WILLIAM, & SONS, *New Bartholomew Street, Birmingham*.—Peal of eight Church Bells arranged for ringing on the English system, weight 55 cwt. Set of Hand Bells for time ringing. (802)

(*See also Group VII.*)

GROUP XVI.

The Art of War.

ORGANIZATION AND RECRUITING OF ARMIES. EQUIPMENT OF TROOPS, ACCOUTREMENTS, AND ARMOUR. ARTILLERY. MILITARY ENGINEERING. SANITARY CONTRIVANCES. MILITARY EDUCATION, TRAINING, AND INSTRUCTION. CARTOGRAPHY AND HISTORIOGRAPHY.

SHIPLEY, JOHN, 187, *Regent Street, London*.—Horse Equipments, with modern improvements (shown in Major Leveson's Tent). (663*)

ELEY BROTHERS, 254, *Gray's Inn Road, London*.—Cartridge Cases for military rifles, and for revolving pistols; Percussion Caps; Gun Waddings of thick felt. (657)

(*See also Group VII.*)

GREGORY, JAMES, *Newport Road, Lincoln*.—"Canteen" Cooking Apparatus. (658)

HENRY, ALEXANDER, 12, *South Saint Andrew Street, Edinburgh*.—"Henry's" Self-cocking Military Rifles, with barrel as adopted by Her Britannic Majesty's Government; "Henry's" Military Breech-loading Rifles, with side lock. (313)

(*See also Group VII.*)

HENRY RIFLED BARREL COMPANY, *Blenheim Works, Eagle Wharf Road, London*.—Steel Barrels for Small Arms and for the Gatling Gun, rifled on the "Henry System," adopted by the British War Department for the Martini-Henry Rifle and the Gatling Gun, shown in various stages of manufacture; Cotton Gunpowder (Imitation)—Punshon's Patent. (660)

SOPER, W., 23, *Friars Street, Reading*.—Breech-loading Rifles, which have been loaded and fired sixty times in one minute. (661)

WEBLEY, P., & SON, 82, 83, and 84, *Weaman Street, Birmingham, and St. James's, London*.—Breech-loading Guns, Rifles, and Revolvers, on various systems and of different qualities. (662)

LEVESON, MAJOR, 22, *King Street, Covent Garden, London*.—Military Tents, Appliances, and Equipments; Sanitary Contrivances. (663)

BROWNING, JOHN, 111, *Minories, & 63, Strand, London*.—Improved Binocular Field Glasses in Aluminium, Field Telescopes. Exhibited as part of Major Leveson's Collection. (663*)

EDGINGTON, JOHN, & COMPANY, 48, *Long Lane, West Smithfield, London*.—Military Camp Tent, for three men, called the "Old Shekarry Campaigning Tent." Military Hospital Marquee, 40 ft. by 20 ft. (used for the exhibition of Major Leveson's collection). (233)

(See also Group VI.)

GARDNER, JOHN, & SONS, 453 and 454, *West Strand, Charing Cross, London*.—Lamps and Cooking Utensils for Military Service (shown in Major Leveson's Tent). (654)

MURCOTT, THEOPHILUS, 68, *Haymarket, London*.—Military Arms, &c. (678)
(See also Group VII. and Appendix.)

FAGG BROTHERS, 29, *Haymarket, London*.—Boots, Patent, for Cavalry, with spurs, chairs, and straps; Hunting, Riding, Shooting, and Dress Boots. (679a)

LEWIS, GEORGE EDWARD, 32 and 33, *Lower Loveday Street, Birmingham*.—Snider Breechloader, with bolt action, for military purposes; Improved Chassepot Rifle for metallic cartridges, W. Scott's

patent; Cross-bolt Military Rifle, new system—W. Scott, patentee. (664)

(See also Group VII.)

VAVASSEUR, J., & COMPANY, *London Ordnance Works, Bear Lane, Southwark, London*.—Cannon, built-up, cast steel breech and muzzle-loading; Iron Gun Carriages for Naval and Field Service; Projectiles for Breech and Muzzle-Loading Guns; M'Evoy's Torpedoes, Electric Fuzes and Apparatus; Jointers for Electric Cables. (665)

ARMSTRONG, SIR W. G., & COMPANY, *Elswick Works, Newcastle-on-Tyne*.—Breech-loading Rifled Guns, with Carriages, &c.; Muzzle-loading ditto; Gatling Guns with ten barrels; Sixty-four Pounder Palliser Converted Rifled Gun on Carriage; Breech and Muzzle-loading Rifled Guns on Garrison Carriages; Parts of Guns in various stages of manufacture; Series of Electrical Torpedoes, with connections complete; Model of the Moncrieff Gun-carriage for 9-inch Gun; Model of 35-ton Muzzle-loading Rifled Gun; Fuzes, Bursters, &c., for Rifled Guns; Corrugated Zinc Powder Cases for 9 and 10-inch Cartridges. (561)

(See also Groups XIII. and XVII.)

MAYO, C., M.D., *Member of the Royal College of Physicians, London*.—Sling Apparatus, in form of a cart, for transporting severely wounded men; intended chiefly for use between field hospitals and railways, and to reduce the number of men and amount of *matériel* required for field-hospital service. (666)

UNITE, JOHN, 291, *Edgware Road, London*.—Military Bell Tent. (232)
(See also Group VI.)

ATKINS, F. H., & COMPANY, 62, *Fleet Street, London*.—India Filter Carts; Barrack Filters (shown in Major Leveson's Tent). (663*)

ADAMS & COMPANY (LIMITED), 391, *Strand, London*.—Cavalry and Infantry Revolvers (shown in Major Leveson's Tent). (663*)

DAW, G. H., 57, *Threadneedle Street, London*.—Military Cartridges (shown in Major Leveson's Tent). (663*)

MINSHULL & COMPANY, *Tichborne Street, London*.—Military Trunks and Camp Gear (shown in Major Leveson's Tent). (663*)

GROUP XVII.

The Navy.

MATERIALS FOR NAVAL ARCHITECTURE. MODELS AND DRAWINGS OF BOATS AND SHIPS FOR INLAND LAKE AND RIVER NAVIGATION; SEA-GOING SHIPS, COASTING VESSELS, MERCHANT SHIPS, AND SHIPS OF WAR, STORES AND FITTINGS FOR EQUIPMENT, OUTFIT, AND ARMAMENT OF SHIPS. TOOLS AND APPARATUS USED IN SHIPBUILDING. LAND AND WATERWORKS FOR NAVIGATION (Models and Drawings of Docks, Harbours, Sluices, Floating Docks, Floating Batteries, and Coast Defences). CLOTHING, OUTFIT, AND ACCOMMODATIONS FOR CREWS. HYDROGRAPHY, CHARTS, METEOROLOGICAL INSTRUMENTS; EDUCATION OF SEAMEN AND OFFICERS.

DENNY, W., & BROTHERS, *Dumbarton*.—Sectional Model of Spanish Royal Mail Steamship "A. Lopez." [Rotunda.] (670)

MARTIN, CLAUDE, 9, *Great Winchester Street, London*.—Model of Stern of Ironclad Vessel, with Patent Self-canting Anchor and Zig-zag Link Chain Cable. (671)

SMITH, WASTENEYS, 22, *Grey Street, Newcastle-on-Tyne*.—Anchors known as Patent "Stockless;" Model of Ship's Stem fitted with the same, and with Patent Apparatus for working and stowing anchors, and Harford and Co.'s Patent Frictional Brake and Connector Windlass. (672)

WILSON, J. H. & COMPANY, *Cornhill, Liverpool*.—Steam Winch and Hoist. (673)

(See also Group XIII.)

LAIRD, BROTHERS, *Birkenhead Ironworks, Birkenhead*.—Ship Models.—Royal British Navy, H.M.S. "Wyvern," Steam Ram, with tripod masts. Royal Dutch Navy, "Heiligerlee," Turret Monitor, and "De Stier," Steam Ram, for coast defence. Brazilian Navy, "Bahia," Turret Monitor. Pacific Steam Navigation Company's Steamers, "Britannia," of 3,700 tons, 650 horse-power, and "Santa Rosa," of 2,250 tons, 400 horse-power, "Cranborne," of the Indus Steam Flotilla, River Steamer of 100 tons, built of steel, drawing only two feet of water. Steam Launch for carrying Troops and one Gun. "Lancashire Witch," Schooner

Yacht, with Auxiliary Engines. "More Vane," Screw Pleasure Launch. [Rotunda.] (674)

KYNASTON, MRS. C. M., *The Close, Lichfield*.—Boat Lowering Apparatus. (675)

PALMER'S SHIP BUILDING AND IRON COMPANY, *Jarrow-on-the-Tyne*.—Models of Ships; Screw Steamer "Jumna," built for the British Government; Screw Steamer "Montana," built for Messrs. Green and Co., Liverpool; Screw Steamer "Brindisi;" Two Half Models. [Rotunda.] (676)

REED, E. J., C.B., *Earle's Shipbuilding Company, Hull*.—Model of a Broad-side Ironclad Ship, "König Wilhelm." (238)

LUMLEY, HENRY, (CHEVALIER) Associate of the Institute of Naval Architects, 20, *Bury Street, St. James's, and 31, St. James's Street, Piccadilly, London*.—Model of Lumley Rudder for River Steamboats, or Canal Navigation, on Exhibitor's Second System. (679)

WALKER FORGED SCREW & BOLT COMPANY, *Low Walker, near Newcastle-on-Tyne*.—Patent Forged Screws. (677)
(See also Group VII.)

ARMSTRONG, SIR W. G., & COMPANY, *Elswick Works, Newcastle-on-Tyne*.—Model of H.M. Gunboat "Staunch." (561)
(See also Groups XIII. and XVI.)

GROUP XVIII.

Civil Engineering, Public Works, and Architecture.

BUILDING MATERIALS; PROCESSES AND APPARATUS FOR QUARRYING, BRICKMAKING; IRON GIRDER WORK; PREPARATION AND PRESERVATION OF WOOD; ARTIFICIAL STONE, TERRA-COTTA WORK, &c.; MATERIALS AND APPLIANCES FOR FOUNDATIONS (Pile-drivers, Screw-piles, Cofferdams, Caissons, Pneumatic and Diving Apparatus). CONTRIVANCES AND TOOLS FOR EARTH-WORKS (Excavators, Dredging Machines, Apparatus for Raising, Carrying, and Transporting Earth and Materials). MATERIALS AND APPARATUS USED FOR ROADS AND RAILWAYS (Road Rollers; Railway Superstructure, Switches, Crossings, Turn-tables, Traversing-tables, Inclined Planes, Lifts; Pneumatic and other Modes of Propelling; Water Stations and their Apparatus, Railway Station Buildings of all kinds, and Systems of Railway Signals). HYDRAULIC ENGINEERING WORKS, EXCLUDING SEA WORKS (River Works, Canal Works, Dikes, Locks, Dams, &c.). MODELS AND PLANS OF VIADUCTS, BRIDGES, AND AQUEDUCTS, &c. PLANS, MODELS, AND DRAWINGS OF PUBLIC BUILDINGS, DWELLING-HOUSES, BARRACKS, PENITENTIARIES, PRISONS, AND HOSPITALS, SCHOOLS AND THEATRES, LABOURER'S COTTAGES; APPARATUS FOR LIFTING AND MOVING HEAVY WEIGHTS IN BUILDINGS, AS LIFTS, &c.; PLANS AND MODELS OF CHEAP DWELLING-HOUSES; TOOLS AND IMPLEMENTS OF ARTISAN BUILDERS. APPARATUS AND INVENTIONS FOR HEALTH, COMFORT, AND CONVENIENCE IN BUILDINGS (for Lighting, Water Supply, Drainage, Waterclosets, Lightning Conductors, &c.). AGRICULTURAL ENGINEERING; PLANS FOR CULTURE, FENCING, DRAINING; FARM BUILDINGS; BUILDINGS FOR CATTLE BREEDING; STORES, STABLES, MANURE TANKS, &c. INDUSTRIAL BUILDINGS; SPINNING MILLS, WEAVING MILLS, GRINDING MILLS; DISTILLERIES, BREWERIES, SUGAR MANUFACTORIES; WAREHOUSES, SAW-MILLS, AND DOCKS, &c.

BICKFORD, SMITH & COMPANY, *Tuckingmill, Cornwall*.—Patent Safety Fuses for blasting in mines, quarries, &c. (680)

SIEBE & GORMAN, 5, *Denmark Street, Soho, London*.—Diving Apparatus, from which two Divers may work at different depths from the same Air-Pump. Used by the English Admiralty. (681)

(See also *Group XIII*.)

HEINKE & DAVIS, 2, *Brabant Court, Philpot Lane, London*.—Improved Diving Apparatus complete; Electric Lamp for sub-marine uses. (682)

AVELING & PORTER, *Rochester, and 72, Cannon Street, London*.—Steam Road Roller. (484)

(See also *Groups XIII. and XIIIa*.)

SAXBY & FARMER, *Canterbury Road, Kilburn, London*.—Railway Junction Model; Interlocking Railway Points and Signals; Level Crossing Gates; Facing Point Locks; and other railway security apparatus. (683)

BAINES, WILLIAM, *Railway Plant*

Works, Birmingham.—Model of Railway Locking Switches and Signal Apparatus. (700)

BLAKEBOROUGH, JOSEPH, *Brighouse, Yorkshire*.—Waterworks Appliances, Hydrants, Fire-extinguishing Apparatus, Gun Metal Steam Fittings, Cocks, Gauges, Valves, Steam-whistles, &c. (684)

REDMAN, JOHN B., F.R.G.S., Member of the Institution of Civil Engineers, 25, *Great George Street, Westminster*.—Model of Royal Terrace Pier, at Milton-on-Thames, erected by means of Cast-iron Cylinders, 1843-5—the pioneer of this class of marine construction; principal dimensions in feet—length 250, breadth 30; the cast-iron girders are 50 and 51 ft. long, and 3 ft. deep, and weigh 8 tons; cylinder foundation piers 6 ft. in diameter; their average depth below low water mark at Spring tide, 12 ft., rise of tide 20 ft.; height of structure from base of foundations to vane, 80 ft.; the cylinder foundations are all carried through the alluvial sands and gravels down to the solid chalk; the cylinders are filled solidly with brickwork and concrete in cement, the base stones being held down by central wrought iron through bolts. Drawings of Cylinders

applied to a Bridge Pier, and to a Fort on the Goodwin Sands. (685)

TWYMAN, AARON, C.E., 25, *Walbrook, London*.—Plans, Elevations, and Sections of a Dwelling House designed for climates similar to that of Great Britain. (686)

IMPROVED INDUSTRIAL DWELLINGS COMPANY (LIMITED), 34, *Finsbury Circus, London*.—Models, Photographs, and Plans of Improved Dwellings for the Working Classes. (687)

JONES, OWEN, 9, *Argyll Place, London*.—Designs for Wall Decorations, Furniture, Carpets, Paper Hangings, and Silk Hangings. (688)

(See also Groups XI. and XII.)

TALL & COMPANY (LIMITED), 8, *Lawson Street, Great Dover Street, London*.—Concrete Dwelling House. (689)

MOSELEY, ANDREW, F.I.B.A., 6, *Trinity Place, Charing Cross, London*, and FULHAM, D.S., *Associate King's College, London*.—Model of Barrack to house 1,000 men, with drawings of the several floors; an elevation and section to the scale of 10 feet to the inch; detail drawings of parts to a larger scale. (690)

SOCIETY FOR IMPROVING THE CONDITION OF THE LABOURING CLASSES (C. PAYNE, Secretary).—21, *Exeter Hall, Strand, London*.—Drawings of Model Lodging Houses and Renovated Houses for Working People; Plans for Cottages for Agricultural Labourers. (691)

DOULTON, H., & COMPANY, 28, *High Street, Lambeth, London*.—Stoneware, known as "Lambeth Pottery," for sanitary purposes; Drainpipes, Traps, Syphons, Sewage Pipes with sluice valves, Sinks, Closet Basins, Urinals, &c.; Terra-Cotta Flue Linings; Architectural and Horticultural Terra-Cotta; Damp-proof course Air Bricks; Toilet Articles in white ware, &c. (315)

(See also Group VII.)

SKELTON, T. A., 37, *Essex Street, London*.—Catoptric Lamp for Street Lighting. (693)

JENNINGS, G., & COMPANY, *Lambeth, London*.—Sanitary Apparatus. (694)

WRIGHT, SUTCLIFFE & SON, *Halifax, Yorkshire*.—Syphon Traps, to prevent the rising of noxious gases from sewers, without seam and with syphon cleansing plug, strengthening webs and funnel, cast in one piece for fixing in sink; Artesian Sink or Well Pump in cast lead. (695)

BROWN-WESTHEAD, MOORE & COMPANY, *Cauldon Place, Hanley, Staffordshire*.—Sanitary Earthenware for domestic and other purposes, made under the sanction of the London Board of Health. (696)

(See also Group IX.)

ZIMDARS, C. E., 28, *Red Lion Square, London*.—Patent Pneumatic Bell Apparatus, for houses, mines, ships, &c.; Dispatch Tube; Railway Carriage Signals; Alarums. (697)

LAWRENCE, W., & COMPANY, 14, *St. Mary Axe, London*.—Water Boiling, Purifying, and Cooling Apparatus. (515)

(See also Group XIII. and Appendix.)

BUSBY, T., 10, *Baron Street, Pentonville, London*.—Bath Valves. (699)

(See also Group VII.)

BLASHILL, THOMAS, 10, *Old Jewry Chambers, London*.—Design for Extensive Bookseller's Establishment in London. (726)

(See also Group XXV.)

DOWS, CLARK & CO., *Bedford Street and Chandos Street, Strand, London*.—Pavilions suitable for the sale of Summer Drinks in the open air. (499)

(See also Group XIII.)

RANSOME, A., & COMPANY, 304, *King's Road, Chelsea, London*.—Arrangement for Removing Instantaneously Shavings, Dust, and Light Refuse from Machinery. (474)

(See also Group XIII.)

CHADWICK, EDWIN C. B., *Park Cottage, Upper Sheen, London*.—Diagram showing New Method of Road Construction and Drainage. Invented by the Exhibitor. (320)

GROUP XXI.

National Domestic Industry.

POTTERY AND PORCELAIN. FABRICS, TAPESTRY, EMBROIDERY, LACE AND OTHER NEEDLEWORK.
METAL ARTICLES AND ORNAMENTS. CARVED WORK AND UTENSILS.

SILICATED CARBON FILTER
COMPANY, *Church Road, Battersea, London.*
—Silicated Carbon Filters in Glass, Terra-
Cotta, Marbled China, and Earthenware.
(Shown in operation at Royal Commission
Buildings in the Park). (708)

(See also Group IX.)

ROWE, MRS., E. R. I, *Union Crescent,
Margate.*—Needle Point Lace, Studies of
Flowers. (709)

BURKE, J. HASWELL, 31, *Wellington
Quay, Dublin.*—Cardboard Mounts for Pho-
tographs, Gold Frames, &c. (710)

KENT, GEORGE, 199 to 201, *High
Holborn, London.*—Rotary Knife Cleaners,
Ventilated Refrigerators, Bread Slicing
Machines, Cinder Sifters, Egg-beaters,
Mixers, Churns, Potato Mashers, Mincers,
Clothes Wringers, Carpet Sweepers, &c. (711)

(See also Group VII. and Appendix.)

GROUP XXII.

Exhibition showing the Organisation and Influence of Museums
of Fine Art as applied to Industry.

THE VARIOUS METHODS AND MEANS BY WHICH THE DIFFERENT MODERN MUSEUMS (viz.: the South
Kensington Museum in London and the similar Museums in Vienna, Berlin, Moscow, &c.) ENDEAVOUR
TO CARRY OUT THE IMPROVEMENT OF THE GENERAL TASTE OF THE PEOPLE AND THE MANNER
IN WHICH THEY PROMOTE THE ART INDUSTRY AND PUBLIC INSTRUCTION OF THEIR COUNTRIES.

SCIENCE AND ART DEPARTMENT OF THE COMMITTEE OF
COUNCIL ON EDUCATION, *South Kensington Museum, London, S.W.* (713)

ELECTROTYPES.

- 1 SHIELD, copper silvered and oxydised and parcel-gilt, "The Outram Shield."—The original, of silver and steel damascened with gold, was presented to the late Sir James Outram, Bart., G.C.B., by friends in the Bombay Presidency. In the centre is a group of equestrian figures in high relief, representing the voluntary cession by Sir J. Outram to General Havelock of the troops destined to relieve Lucknow during the Indian mutiny, around this is a band damascened with gold containing medallion portraits in relief of distinguished Indian officers. A wider external band of groups of figures in low relief represents various events in Sir J. Outram's Indian career. The shield, which is now the property of Sir F. B. Outram, Bart., was manufactured by Messrs. Hunt and Roskell, from the designs of Mr. H. H. Armstead. *English.* 19th century. Diam. 3 feet 3 in. Messrs. Franchi and Son. Price, 55*l.*

- 2 TANKARD and COVER, fictile ivory mounted in metal.—The drum carved in high relief with a bacchanalian group; on the cover a group of a man subduing a centaur. *German (Augsburg)*. Late 17th century. The original, of carved ivory, mounted in silver, parcel-gilt, is in the South Kensington Museum, No. 4,529-'58, and is inscribed "Bernard Strauss Goldsmid fec." H. 19 in., W. 11½ in. by 7¾ in. Messrs. Franchi and Son. Price, fictile ivory with gilt or parcel-gilt mounts, 15*l*.
- 3 VIOLIN, carved with woodland scenes.—The original, in boxwood, belongs to the Earl of Warwick, by whom it has been lent to the South Kensington Museum. *English*. Date about 1330-40, with additions dated 1579. L. 2 ft., W. 7¾ in. Messrs. Franchi and Son. Price, copper bronzed, in imitation of wood, 75*l*.
- 4 SHIELD, with piked centre, of repoussé or beaten work, with subjects from the life of Julius Cæsar a legend in Latin elegiacs round the border. *Italian*. 16th century. The original, of iron, damascened with gold and silver is attributed to Benvenuto Cellini, and is in the Royal Armoury, Windsor Castle. Diam. 22 in. Messrs. Elkington and Co. Price, silvered or oxydised, 3*l*. 15*s*
- 5 VASE and COVER.—Stags among foliage in low relief; on the cover a bird. The original, of silver beaten and chased, is the property of Lord Buckhurst, Knole Park. *Indian*. H. 14 in., diam. 9 in. Messrs. Franchi and Son. Price, silvered, 6*l*.
- 6 VASE and COVER.—Band of masks between fruit and foliage; gadroons at top and bottom; festoons hanging from the cover. The original, of silver beaten and chased, is the property of Lord Buckhurst, Knole Park. 17th century. H. 16 in., W. 10 in. Messrs. Franchi and Son. Price, silvered, 8*l*. 10*s*.
- 7 GOBLET.—The stem carved in high relief with masks, snails, lions, &c. *English*. Hall-mark, 1567. The original, of agate, mounted in silver gilt, is in the South Kensington Museum, No. 38-'67. H. 7¾ in., diam. 3½ in. Messrs. Franchi and Son. Price, gilt, 20*l*.
- 8 PAX.—Of architectural design; in the centre is a group in full relief of the Virgin giving the chasuble to St. Ildefonso. *Spanish (Salamanca?)*. About 1540-50. The original, of silver gilt, is in the South Kensington Museum, No. 314-'64. H. 10½ in., W. 5½ in. Messrs. Franchi and Son. Price, gilt, 25*l*.

-
- 9 PAINTING.—On porcelain; two of three rectangular pieces. Copy of "May Day, in the Olden Time," painted by H. S. Marks in 1868. Executed by Miss E. Cambridge, Student of the Porcelain Class, South Kensington. *English*. 1870.

DESIGNS FOR FANS.

- 10 Water colour on silk, grasses, bluebells, and butterflies; sent to competition for fan designs, by Louisa Colfax. *Modern English*.
- 11 Water colour on silk, wreath of convolvulus and blackberries; prize object in competition for fan designs, by Fanny M. Minns. *Modern English*.
- 12 Water colour on silk, passion flowers; sent to competition for fan designs, by A. B. Purkiss. *Modern English*.

- 13 Water colour on paper, conventionalized flowers in purple border, heightened with gold; prize object sent to competition for fan designs, by Maria Truman. *Modern English.*
- 14 Water colour on vellum; mediæval figures representing the Senses: prize object in competition of fan designs, by Ellen Montalba, South Kensington School of Art. *English.* 1869.
- 15 Water colour on vellum; a river with sedgy banks and a kingfisher: prize object in competition of fan designs. By Mrs. A. A. Foster, Lincoln School of Art. *English.* 1870.
- 16 Water-colour on silk; flowers and butterflies on black ground: prize object in competition of fan designs. By Emily R. Stanton, Stroud School of Art. *English* 1870.

STUDENTS' WORKS, &c.

- 17 DRAWINGS AND PAINTINGS, by Students of Schools of Art of the United Kingdom. One descriptive label in frame. (62 frames.)
- 18 MODELS IN PLASTER, by Students of Schools of Art of the United Kingdom. (9 frames.)
- 19 SERIES OF DESIGNS FOR WALL PAPERS, by Students at South Kensington Schools of Art. Manufactured by Messrs. Corbière and Son. (6 frames.)
- 20 PIECE OF SILK, designed by F. A. Slocombe, Art Student, South Kensington. Manufactured by Messrs. Corbière and Son. (1 frame.)
- 21 PHOTOGRAPHS FROM TERRA COTTA PANELS for the Wedgwood Memorial Institute, Burslem. Executed in the Training and Normal School, South Kensington. (8 frames.)
- 22 CHROMO-LITHOGRAPHS of Objects in the South Kensington Museum. (12 frames.)
- 23 TILES (Twelve).—Enamelled Earthenware. Each containing a letter of the alphabet with accompanying figure, designed by the late Godfrey Sykes. *Modern English.* (4 frames.)
- 24 ROSETTE, and portion of border, of enamelled Terra Cotta ceiling, South Kensington Museum. Designed by J. Gamble.
- 25 PAINTING ON ENAMELLED IRON, of a letter of the alphabet. Designed by the late Godfrey Sykes.
- 26 PART OF A SERIES OF DECORATIVE DESIGNS. By E. J. Poynter, A.R.A. For the Grill room, South Kensington Museum. (16 frames.)
- 27 CAST OF PANEL, of North Gate, Sanchi Tope, Bhopal, India. Buddhist Art, 1st Century.

28 PHOTOGRAPH OF THE EASTERN GATEWAY, of the Sanchi Tope, Bhopal, India.

29 TWO FRAMES, from a series, illustrating economic entomology.

30 BOTANICAL SPECIMENS, WITH DIAGRAMS. By Professor Oliver. (70 frames.)

SHEET.		SHEET.		SHEET.	
1. Descriptive Label. (Table of Classes.)	(Table of)	25. Cow Parsnip, Hemlock, Wild Chervil, Ivy.		50. Walnut, Sweet Gale.	
2. Buttercup, Clematis, Monkshood.		26. Mistletoe, Dogwood.		51. Hazel.	
3. Barberry, White Water Lily.		27. Laurustinus, Honeysuckle, Harebell, Guelder Rose.		52. Beech, Oak, Spanish Chestnut, Horn-beam.	
4. Fumitory, Poppy.		28. Heath, Vaccinium, Lobelia.		53. Birch, Alder, Poplar, Willow.	
5. Wallflower, Shepherd's Purse, Lunaria, Raphanus.		29. Woodruff, Coffee.		54. Yew, Juniper, Scotch Fir, Arbor-vitæ.	
6. Mignonette, Rock Rose.		30. Valerian, Field Scabious.		55. Dwarf Fan-palm, Areca baueri.	
7. Pansy, Milkwort.		31. Ox-eye Daisy, Bluebottle, Dandelion.		56. Cuckoo-pint, Pondweed, Duckweed.	
8. Carnation, Pink, Stitchwort, Sea-heath.		32. Bluebottle, Dandelion, Ox-eye Daisy.		57. Water Plantain, Flowering Rush, Frog-bit.	
9. St. John's Wort, Thea Chinensis.		33. Cowslip, Thrift.		58. Tway-blade, Orchis.	
10. Mallow, Lime or Linden.		34. Ash, Lilac, Gentian.		59. Crocus, Narcissus, Snowdrop, Yellow Flag.	
11. Flax, Wood Sorrel.		35. Periwinkle, Periploca Græca.		60. Blue-bell, Garlic, Butcher's Broom, Asparagus, Tulip.	
12. Crane's Bill, Tropæolum.		36. Bindweed, Dodder, Jacob's Ladder.		61. Simlax, Field Rush, Soft Rush.	
13. Roe, Zanthoxylum, Orange.		37. Deadly Nightshade, Potato.		62. Sedge, Scirpus Lacustris, Eleocharis palustris.	
14. Holly, Spindle Tree.		38. Forget-me-Not, Bignonia, Comfrey.		63. Wheat, Oat.	
15. Buckthorne, Grape Vine.		39. Toad-flax, Fox-glove, Germander Speedwell.		64. Table of Genera of Grasses.	
16. Sycamore, Horse Chestnut.		40. Bladderwort, Utricularia, Sage, White Dead Nettle.		65. Wheat, Barley, Oat, Rye, Rice, Poa Annua, &c.	
17. Laburnum, Pea, Acacia.		41. Garden Verbena, Ribwort.		66. Male Shield-Fern, Polyphy.	
18. Sloe, Bramble, Apple.		42. Good King Henry, Orache, Amaranthus.		67. Field Horse Tail, Club Moss, Selaginella.	
19. Bramble, Cherry, Meadow Sweet, Lesser Burnet, Dog Rose, Hawthorne.		43. Dock, Daphne Pontica.		68. Hair Moss, Bog Moss, Hypnum Flagellare, Bryum.	
20. Meadow Saxifrage, Gooseberry, Red-flowered Currant.		44. Bay Laurel, Camphor Tree.		69. Lichens, Mushroom, Moulds, &c.	
21. Stonecrop, Sundew.		45. Birthwort, Elcagnus.		70. Sea-weeds.	
22. Purple Loose-strife, Myrtle.		46. Box, Sun Spurge, Mercury.			
23. Willow Herb, Mare's Tail.		47. Plane, Elm.			
24. Bryony, Passion Flower.		48. Nettle, Hemp, Hop.			
		49. Mulberry, India-rubber Fig.			

31 ETCHINGS OF OBJECTS IN THE SOUTH KENSINGTON MUSEUM. By Students of the Etching Class, Central Training Schools. (46 frames.)

SET I.—(ELEVEN IMPERIAL FRAMES.)

No.	No.	No.
35. Box with Cover, boxwood.	32. Plaque, brass.	39. Sun Dial, bronze gilt.
25. Panel, carved oak.	29. Bowl, silver.	15. Cup, nautilus shell
5. Casket, leather.	33. Inkstand, bronze.	47. Cup, trochus shell.
1. Coffe, walnut wood.	18. Lock, chiselled iron.	38. Cup, cocoa-nut.
12. Casket, ebony.	31. Lamp, bronze.	46. Cup, cocoa-nut.
11. Coffe, steel.	44. Lamp, bronze.	37. Staff, ivory.
20. Key for wheel-lock Rifle, steel.	21. Panel, carved wood.	50. Pax, niello on silver.
28. Snuff Box, steel.	3. Mirror, burnished metal.	4. Pastoral Staff, gilt and enamel.
23. Knocker, wrought iron.	48. Mirror, burnished metal.	16. Pastoral Staff, head of carved ivory.
36. Bell, bronze.	13. Frame, carved oak.	42. Bottle, silver.
24. Knife and Fork, steel.	41. Cross, silver, parcel-gilt.	43. Dagger, steel.
30. Scissors, with sheath, steel.	45. Cross, wood with silver plates.	19. Diptych, gilt bronze.
6. Knife, steel.	20. Plaque, enamel.	27. Knife, steel, engraved.
12. Knife, steel.	17. Triptych, silver-gilt with enamel plaques.	2. Sideboard, carved wood.
8. Vase, crystal.	34. Lamp, bronze.	7. Cup, wood and silver-gilt.
9. Cup and cover, silver-gilt.	40. Vase and Cover, bronze.	
22. Vase and cover, silver-gilt.	10. Knocker, iron.	
49. Watch and Stand crystal and gilt metal		

SET II.—(TWELVE IMPERIAL FRAMES.)

No.	No.	No.
35. Knocker, bronze.	11. Pedestal, bronze.	13. Dagger, steel.
2. Knocker, bronze.	50. Powder Flask, gilt metal.	15. Tea Caddy, silver.
47. Bracket, bronze.	48. Mount, gilt bronze.	43. Jug, Chinese porcelain.
44. Spout of a Fountain, bronze.	45. Bell, bronze.	3. Pedestal, bronze.
1. Reliquary, gilt, enamel, &c.	30. Powder Flask, boxwood.	41. Casket, bronze-gilt.
12. Cruet, crystal.	28. Knife Case, carved wood.	9. Knocker, bronze.
19. Reliquary, crystal or silver-gilt.	24. Casket, carved wood.	14. Fountain Jet, bronze.
20. Medallion, boxwood, in silver case.	4. Casket, carved bone.	31. Stopper of a Flask, bronze.
8. Snuffers, bronze.	32. Bellows, wood.	49. Dagger, gilt bronze hilt.
36. Snuffers, brass.	16. Bellows, chestnut wood.	34. Dagger, steel.
10. Purse Frame, steel.	39. Tazza, silver parcel gilt.	46. Purse Frame, steel.
40. Fire-irons, with brass handles.	17. Reliquary, gilt copper.	38. Purse Frame, iron.
6. Pastoral Staff, ivory.	7. Goblet, agate, and silver-gilt.	26. Figure, bronze.
25. Diptych, ivory.	5. Cruet, silver parcel gilt.	42. Statuette, bronze.
18. Triptych, ivory.	21. Crucifix, silver-gilt.	27. Salt Cellar, bronze.
22. Knife, steel, with ivory handle.	29. Crucifix, brass.	37. Bracket Branch, bronze.
23. Knife, steel, with ivory handle.	33. Pax, silver-gilt.	

SET III.—(TWELVE IMPERIAL FRAMES.)

No.	No.	No.
34. Statuette, bronze.	4. Nutcrackers, wood.	17. Lock Escutcheon, bronze-gilt.
15. Statuette, bronze.	25. Nutcrackers, boxwood.	45. Group of the Crucifixion, cedar wood.
24. Girardole, iron.	38. Mandoline, beechwood.	43. Cross, cypress wood.
36. Girandole, chiselled iron.	1. Powder Flask, stag's horn.	26. Dagger, steel, brass handle.
50. Mirror Cover, ivory.	18. Scissors, steel.	6. Triptych, boxwood.
47. Mirror Cover, ivory.	2. Knife and Shears, steel.	42. Powder Flask, bronze-gilt.
35. Knife, Fork, and Spoon, ivory handles.	23. Scissors and Bodkin, steel, &c.	11. Cartouche Box, bronze-gilt.
5. Powder Flask, ivory.	49. Shears, chiselled steel.	33. Mortar, bronze.
19. Cylinder, ivory.	28. Cup, silver-gilt.	31. Sugar Nippers, steel.
8. Spoon, silver-gilt.	37. Cup, cow's horn and bronze-gilt.	1. Boss, bronze.
29. Knives, steel.	16. Bowl and Cover, bell metal.	14. Window Grating, iron.
41. Spoons, silver-gilt.	10. Group, copper-gilt.	7. Knocker, tinned iron.
27. Spoons, boxwood.	39. Frame, copper-gilt.	21. Pediment of a Gate, iron.
9. Rapier, steel.	22. Powder Flask, brass-gilt.	20. Knives, steel.
32. Rapier, steel.	30. Key for Wheel-lock Rifle, steel.	46. Knife and Fork, silver handles.
13. Rapier, steel.	12. Keys, steel.	41. Knives, mother-of-pearl handles.
3. Rapier, steel.	40. Knocker, wrought iron.	48. Knife and Fork, silver-gilt handles.

SET IV.—(ELEVEN IMPERIAL FRAMES.)

No.	No.	No.
12. Rapier, steel.	11. Horizontal Clock, ebony and silver.	43. Mirror, burnished metal.
8. Sword, steel.	13. Thurible, copper.	16. Coffin, maple wood.
26. Rapier, steel.	47. Monstrance, silver gilt.	19. Casket, stamped leather.
46. Nutcrackers, steel.	20. Door Handle, bronze.	6. Casket, covered with leather.
46a. Spoon, silver gilt.	3. Lamp, bronze.	14. Box, carved wood.
24. Book.	27. Lamp, bronze.	18. Cupboard, carved oak.
25. Book.	44. Casket, lead.	21. Coffin, carved oak.
40. Mortar, bronze.	7. Candlestick, iron.	4. Knives, steel.
35. Bell, gilt metal.	5. Pounce box, bronze.	1. Knife and Fork, steel.
30. Mortar, bronze.	22. Inkstand, bronze.	10. Knives, steel, with silver handles.
33. Bowl and Cover, bell metal.	2. Hunting Horn, steel.	15. Mounting of a Knife, ivory.
32. Lock and Key, iron.	23. Inkstand, bronze.	36. Knives, steel, mother-of-pearl handles.
28. Door Handle, iron.	49. Box, boxwood.	17. Knife, steel.
37. Lock, iron.	31. Box, carved wood.	9. Ewer, green basalt.
39. Chair, walnut wood.	50. Cross, boxwood, &c.	29. Powder Flask, shell.
42. Chair, carved wood.	34. Panel, wood carving.	
38. Crucifix, copper gilt.	45. Sideboard, carved oak.	

- 32 SKETCH FOR THE DECORATION OF A SMALL DOME ON THE WEST STAIRCASE, SOUTH KENSINGTON MUSEUM. The design has been reproduced in Minton's new permanent process. The subject of the design is Ceres, Vulcan, and Mercury, representing Agriculture, Manufactures, and Commerce.—By F. W. Moody.

FRAMED MATTER—CARTOONS.

- 33 PAINTING.—Oil on canvas, on gold ground; executed in mosaic for the South Kensington Museum. Donatello, Italian sculptor. *Modern English*. By R. Redgrave, R.A. Sight measure, H. 8 ft. 8 in., W. 2 ft. 10½ in. 1707-'69.
- 34 PAINTING.—Oil on canvas, on gold ground; executed in mosaic for the South Kensington Museum. Michael Angelo Buonarroti, Italian painter, sculptor, and architect. *Modern English*. By the late Godfrey Sykes. Sight measure, H. 8 ft. 8 in., W. 2 ft. 10½ in. 1708-'69.
- 35 PAINTING.—Oil on canvas; gold ground; to be executed in mosaic. Nicola Pisano, Italian sculptor. *Modern English*. By F. Leighton, A.R.A. Sight measure, H. 8 ft. 8½ in., W. 2 ft. 10½ in. 1139-'68.
- 36 THREE COPIES OF PORTIONS OF RAPHAEL'S CARTOONS.
- 37 MEASURING MACHINE. Invented by Sir Joseph Whitworth, Bart. Capable of measuring the one-millionth part of an inch.

CLARKE. CASPAR, 16, *Earl's Court Gardens, South Kensington, London*.—Mosaic Picture from the Dome of the Chigi Chapel, Rome, in impressed and coloured paper, by a process indicated by General Scott, C.B. [Executed by the Exhibitor.] (714)

DIRECTORS OF CONVICT PRISONS.—Medallion, in Mosaic, of a Female Head. Executed by the Convicts at the Woking Female Prison. (340)

GROUP XXIII.

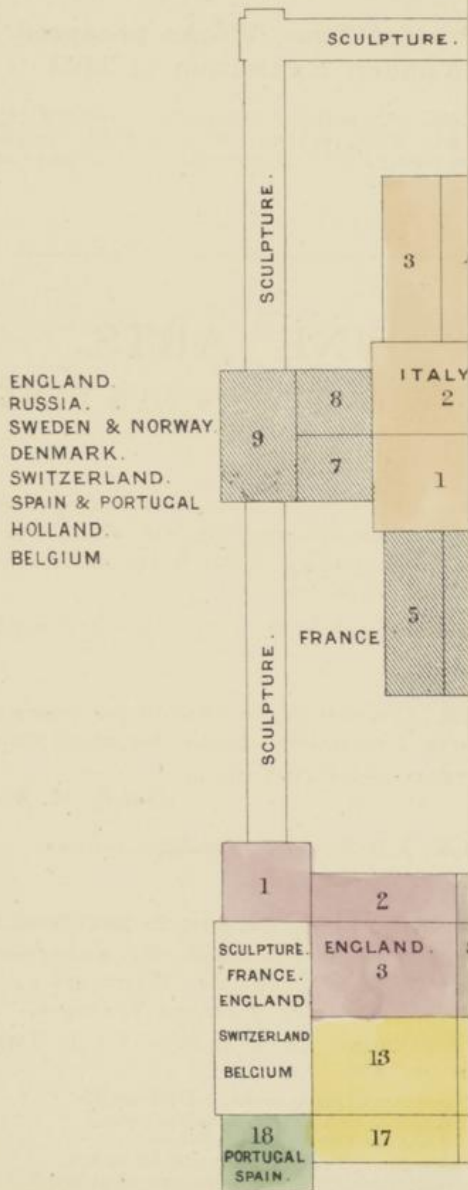
Art applied to Religion.

DECORATION OF CHURCHES (Wall Decoration, Stained Glass, Glass Painting, &c.). CHURCH FURNITURE (Altars, Organs, Pulpits, Pews, Shrines for enclosing Sacred Vessels, &c.). ORNAMENTS FOR ALTARS, PULPITS, CRUCIFIXES, CHALICES, LIBURIUMS, CANDLESTICKS, ALTAR HANGINGS AND CARPETS, PULPIT HANGINGS, &c. OBJECTS USED IN BAPTISM AND FUNERALS, &c.

DE MORINI, CH., 87, *Newman Street, Oxford Street, London.*—Stained Glass Window for a Staircase, Watteau style.
(718)

CONSTABLE, W. H., *Cambridge.*—Stained Glass Window, early English style; subject, "Christ healing all diseases."
(719)

VIENNA UNIVERSAL EXHIBITION, 1876



GROUP XXV.

Fine Arts of the Present Time, Works produced since the Second
London Exhibition of 1862.

PAINTINGS: Including Miniatures and Enamels. SCULPTURE: Including Figures and Groups of small sizes; Engraving, Medals, &c. ARCHITECTURE: Including Models, Designs, Sketches, and Surveys of Architectural Works of the present time. GRAPHIC ARTS: Including Copper and Steel Engravings Etching, Woodcuts, &c.

FINE ARTS.

OIL COLOUR PAINTINGS.

. The Initials which appear after the names of the Artists in the following pages must be read as follows:—P.R.A., President of the Royal Academy of England; R.A., Member, A.R.A., Associate, and A.E., Associate Engraver, of the same Academy; P.R.S.A., President of the Royal Scottish Academy; R.S.A., Member of the Royal Scottish Academy.

When not otherwise stated the Artist is also the Contributor.

ANSELL, R., R.A., Lytham House, St. Alban's Road, Kensington, London.

Elected Associate of the Royal Academy, London, 1861; elected full member, 1870.

1 GOING TO THE WINTERING—DRIVING SHEEP.

Lent by H. A. BRASSEY, ESQ., M.P.

ARCHER, J., R.S.A., 6, Bedford Place, Kensington, London.

2 PORTRAIT OF A LADY IN WHITE.

ARMITAGE, EDWARD, R.A., 3, Hall Road, St. John's Wood, London.

Elected Associate of the Royal Academy, London, 1867; elected full member, 1872.

3 DANIEL POINTING OUT TO KING CYRUS THE FOOTSTEPS OF THE PRIESTS
IN THE TEMPLE OF BEL.—*Story of Bel and the Dragon.*4 FRENCH PEASANT PLOUGHING UP A BATTLE-FIELD TWENTY YEARS
AFTER THE WAR OF 1870.

“Scilicet et tempus veniet, cum finibus illis
Agricola, incurvo terram molitus aratro,
Exesa inveniet scabrâ rubigine pila:
Aut gravibus rastris galeas pulsabit inanes,
Grandiaque effossis mirabitur ossa sepulchris.”

VIRGIL, *Georgics*, Lib. i., 493-7.

- BOXALL, SIR W., R.A.**, 14, Welbeck Street, London.
Elected Associate of the Royal Academy, London, 1851; elected full member, 1868.
- 5 PORTRAIT OF HON. MRS. RICHARD BOYLE. (*Hors concours.*)
Lent by the HON. and REV. R. C. BOYLE.
- 6 PORTRAIT OF THE LATE MRS. CARDWELL. (*Hors concours.*)
Lent by the RIGHT HON. E. CARDWELL, M.P.
- BRETT, JOHN**, 3, Mansfield Street, London.
- 7 SOUTH BISHOP ROCK—ANTICIPATIONS OF A WILD NIGHT.
CALDERON, PHILIP H., R.A., 9, Marlborough Place, St. John's Wood, London.
Elected Associate of the Royal Academy, London, 1864; elected full member, 1867.
- 8 AFTER THE BATTLE *Lent by H. W. F. BOLCKOW, ESQ., M.P.*
- 9 "SIGHING HIS SOUL INTO HIS LADY'S FACE" .. *Lent by G. C. SCHWABE, ESQ.*
- COLE, VICAT, A.R.A.**, 8, Victoria Road, Kensington, London.
Elected Associate of the Royal Academy, London, 1870.
- 10 EVENING *Lent by H. A. BRASSEY, ESQ., M.P.*
"Now fades the glimmering landscape on the sight,
And all the air a solemn stillness holds."
- COOKE, E. W., R.A.**, Glen Andred, Groombridge, Tonbridge Wells.
Elected Associate of the Royal Academy, London, 1851; elected full member, 1863.
- 11 LIGHTSHIP ON THE GOODWINS DURING A GALE
Lent by THOMAS BRASSEY, ESQ., M.P.
- COOPER, T. S., R.A.**, 42, Chepstow Villas, Bayswater, London, and Vernon Holme, Harbledown, Canterbury.
Elected Associate of the Royal Academy, London, 1845; elected full member, 1867.
- 12 A BROOK IN THE MEADOWS *Lent by DAVID JARDINE, ESQ.*
- COPE, C. W., R.A.**, 19, Hyde Park Gate South, Kensington Gore, London.
Elected Associate of the Royal Academy, London, 1843; elected full member, 1848.
Silver Medallist.
- 13 OTHELLO RELATING HIS ADVENTURES TO BRABANTIO—Othello—*Shakespeare.*
Lent by R. P. BARROW, ESQ.
- 14 THE MARRIAGE OF GRISELDA—*Chaucer.* *Lent by G. MOORE, ESQ.*
- DAVIS, H. W. B., A.R.A.**, 10, Cunningham Place, St. John's Wood, London.
Elected Associate of the Royal Academy, London, 1873.
- 14a MOONRISE *Lent by W. E. J. ROFFEY, ESQ.*
- DILLON, F.**, 13, Upper Phillimore Gardens, Kensington, London.
- 15 HOUSE OF THE MUFTI SHEIKH EL MAHDI, CAIRO .. *Lent by R. A. COSIER, ESQ.*
- ELMORE, A., R.A.**, 1, St. Alban's Road, Victoria Road, Kensington, London.
Elected Associate of the Royal Academy, London, 1845; elected full member, 1857.
- 16 LEONORA.
- 17 ON THE HOUSETOPS.
FAED, THOMAS, R.A., Sussex Villa, Campden Hill, Kensington London.
Elected Associate of the Royal Academy, London, 1861; elected full member, 1864.
- 18 THE LAST OF THE CLAN. (*Hors concours.*) *Lent by R. SUTTON, ESQ.*
- 19 GOD'S ACRE. (*Hors concours.*) *Lent by GEORGE FOX, ESQ.*

- FILDES, S. L.**, The Studio, King Henry's Road, London.
- 20 "FAIR, QUIET, AND SWEET REST" *Lent by J. LEWIS, ESQ.*
- FRITH, W. P., R.A.**, 7, Pembridge Villas, Bayswater, London.
*Elected Associate of the Royal Academy, London, 1845; elected full member, 1853.
Hon. Member of the Imperial Academy of Fine Arts, Vienna.*
- 21 RAMSGATE SANDS *Lent by HER MAJESTY THE QUEEN.*
LORD FOPPINGTON RELATING HIS ADVENTURES *Lent by H. A. BRASSEY, ESQ., M.P.*
- FROST, W. E., R.A.**, 38, Fitzroy Square, London.
Elected Associate of the Royal Academy, London, 1846; elected full member, 1871.
- 22 UNA AND THE WOOD NYMPHS *Lent by HER MAJESTY THE QUEEN.*
- GRAHAM, P.**, 93, Ladbroke Road, Notting Hill, London.
- 23 A SPATE IN THE HIGHLANDS *Lent by W. CUNLIFFE BROOKS, ESQ., M.P.*
- GRANT, SIR FRANCIS, P.R.A.**, 27, Sussex Place, Regent's Park, London.
*Elected Associate of the Royal Academy, London, 1842; elected full member, 1851;
elected President, 1866.*
- 24 ASCOT MEET *Lent by the COUNTESS OF CHESTERFIELD.*
- 25 PORTRAIT OF MISS GRANT.
- GRAVES, HON. HENRY**, 19, Albert Mansions, Victoria Street, London.
- 25^a PORTRAIT OF MRS. GERRARD LEIGH, OF LUTON HOO.
- 25^b MRS. AMORY (OF KNIGHTHAYES COURT) & CHILD.
- HALSWELLE, KEELEY, A.R.S.A.**, 39½, Old Bond Street, London.
- 26 ROBA DI ROMA *Lent by JAMES GIBSON-CRAIG, ESQ.*
- HARVEY, SIR G., P.R.S.A.**, Edinburgh.
- 27 SCHOOL DISMISSING *Lent by DRYSDALE CARSTAIRS, ESQ.*
- HODGSON, J. E., A.R.A.**, 5, Hill Road, Abbey Road, London.
Elected Associate of the Royal Academy, London, 1873.
- 28 THE SNAKE CHARMER *Lent by G. C. SCHWABE, ESQ.*
- HOLLAND, JAMES, the Late.**
- 29 VENICE *Lent by A. J. LEWIS, ESQ.*
- HOOK, J. C., R.A.**, Silverbeck, Churt, Farnham.
*Elected Associate of the Royal Academy, London, 1850; elected full member, 1860.
Silver and Gold Medallist.*
- 30 THE SHIPBOY'S LETTER *Lent by C. P. MATTHEWS, ESQ.*
- 31 HOISTING SAIL *Lent by C. P. MATTHEWS, ESQ.*
- HORSLEY, J. C., R.A.**, 1, High Row, Kensington, London.
*Elected Associate of the Royal Academy, London, 1855; elected full member, 1864.
Silver Medallist.*
- 32 BANKER'S PRIVATE ROOM—Negotiating a Loan *Lent by G. FOX, ESQ.*
- 33 CHECKMATE NEXT MOVE *Lent by T. JESSOP, ESQ.*
- 33^a "IN WITH YOU, IN WITH YOU" *Lent by J. LEWIS, ESQ.*
- HULME, F. W.**, 8, St. Alban's Road, Kensington, London.
- 34 PONT-Y-PAIR, BETTWS-Y-COED, NORTH WALES.

- KNIGHT, J. P., R.A.**, 20, James Street, Buckingham Palace, London.
Elected Associate of the Royal Academy, London, 1836; elected full member, 1844.
- 35 AN OLD STUDENT *Lent by* EDWARD LANGLEY, ESQ.
- LANDSEER, SIR E., R.A.**, 18, St. John's Wood Road, Regent's Park, London.
Elected Associate of the Royal Academy, London, 1826; elected full member, 1831.
- 36 THE SANCTUARY *Lent by* HER MAJESTY THE QUEEN.
37 THE ARAB TENT *Lent by* H.R.H. THE PRINCE OF WALES, K.G.
38 PORTRAIT OF SIR E. LANDSEER, R.A. *Lent by* H.R.H. THE PRINCE OF WALES, K.G.
- LEHMANN, RUDOLPH, I.**, South Villas, Campden Hill, Kensington, London.
- 40 OUT OF THE WORLD—two Monks making Music
Lent by HENRY SCHLESINGER, ESQ.
- LEIGHTON, F., R.A.**, 2, Holland Park Road, Kensington, London.
Elected Associate of the Royal Academy, London, 1864; elected full member, 1868.
- 41 CLEOBULUS AND CLEOBULE *Lent by* E. L. S. BENZON, ESQ.
42 AFTER VESPERS *Lent by* E. N. BUXTON, ESQ.
- LEWIS, JOHN F., R.A.**, Walton-on-Thames.
Elected Associate of the Royal Academy, London, 1859; elected full member, 1864.
- 43 THE DOUBTFUL COIN *Lent by* C. P. MATTHEWS, ESQ.
44 A STREET IN CAIRO *Lent by* T. BARING, ESQ., M.P.
- LINNELL, J.**, Redhill, Surrey.
- 45 THE WINDMILL *Lent by* J. EDEN, ESQ.
- MARKS, H. S., A.R.A.**, 15, Hamilton Terrace, St. John's Wood, London.
Elected Associate of the Royal Academy, London, 1872.
- 46 "THE BEGGARS ARE COMING TO TOWN" .. *Lent by* OCTAVIUS COOPE, ESQ.
- MILLAIS, J. E., R.A.**, 7, Cromwell Place, South Kensington, London.
Elected Associate of the Royal Academy, London, 1853; elected full member, 1863.
Silver and Gold Medallist.
- 47 PORTRAIT OF MISS NINA LEHMANN *Lent by* F. LEHMANN, ESQ.
48 THE SISTERS *Lent by* C. P. MATTHEWS, ESQ.
- NICOL, ERSKINE, A.R.A.**, 24, Dawson Place, Bayswater, London.
Elected Associate of the Royal Academy, London, 1866.
- 49 A CHINA MERCHANT *Lent by* H. W. F. BOLCKOW, ESQ., M.P.
- OAKES, J. W.**, 34, Addison Road, Kensington, London.
- 50 LINN OF MUICK, NEAR BALLATER, ABERDEENSHIRE.
- O'NEIL, HENRY, A.R.A.**, 7, Victoria Road, London.
Elected Associate of the Royal Academy, London, 1860. Double Silver Medallist.
- 51 EASTWARD HO! *Lent by* A. J. LEWIS, ESQ.

- ORCHARDSON, W. Q., A.R.A., Kinnerton Street, Wilton Place, London.
Elected Associate of the Royal Academy, London, 1868.
- 52 FALSTAFF *Lent by C. MOXON, ESQ.*
- PETTIE, JOHN, A.R.A., St. John's Wood Road, London.
Elected Associate of the Royal Academy, London, 1866.
- 53 TOUCHSTONE AND AUDREY—As you Like it. *Shakespeare* .. *Lent by C. MOXON, ESQ.*
- PHILLIP, JOHN, the Late, R.A.
Elected Associate of the Royal Academy, London, 1857; elected full member, 1859.
- 54 THE DYING CONTRABANDISTA *Lent by HER MAJESTY THE QUEEN.*
- POOLE, P. F., R.A., Green Hill, Hampstead, London.
Elected Associate of the Royal Academy, 1846; elected full member, 1861.
- 55 THE PHANTOM HUNTER.—Decameron *Lent by C. L. COLLARD, ESQ.*
- PRINSEP, VAL. E., Holland Park Road, Kensington, London.
- 56 A BEAUTY AND A BEAST *Lent by SIR C. MILLS, BART., M.P.*
- RAVEN, J. S., 6, Westbourne Park, London.
- 57 THE MATTERHORN *Lent by G. TRIST, ESQ.*
- REDGRAVE, RICHARD, R.A., 18, Hyde Park Gate South, Kensington Gore, London.
Elected Associate of the Royal Academy, London, 1840; elected full member, 1851.
- 58 A WAY THROUGH THE WOODS *Lent by J. KELK, ESQ.*
- 59 THE WOODLAND MIRROR *Lent by THOS. BRASSEY, ESQ., M.P.*
- RICHMOND, W. B., Beavor Lodge, Beavor Lane, Hammersmith, London.
- 60 THE LAMENT OF ARIADNE.
- RIVIERE, B., 16, Addison Road, Kensington, London.
- 61 CHARITY *Lent by COL. LOYD-LINDSAY, V.C., M.P.*
- SANT, JAMES, R.A., 43, Lancaster Gate, London.
Elected Associate of the Royal Academy, London, 1861; elected full member, 1869.
- 62 PORTRAIT OF MASTER JOHN ALFRED WILSON-PATTEN.
Lent by the RT. HON. COL. WILSON-PATTEN, M.P.
- STONE, MARCUS, Langham Chambers, Portland Place, London.
- 63 EDWARD II. AND HIS FAVOURITE, PIERS GAVESTON .. *Lent by GEORGE FOX, ESQ.*
- STOREY, GEORGE A., 58, St. Mary's Terrace, Maida Hill, London.
- 64 THE SHY PUPIL *Lent by JOHN PENDER, ESQ., M.P.*
- TURNER, J. M. W., the Late, R.A.
- 65 WALTON BRIDGES *Lent by H. W. F. BOLCKOW, ESQ., M.P.*
- WALTON, FRANK, Wotton, Surrey.
- 66 GANDER'S POOL—Landscape.

- WARD, E. M., R.A.**, Lansdowne Road, Notting Hill, London.
Elected Associate of the Royal Academy, London, 1846; elected full member, 1855.
- 67 THE LAST SLEEP OF ARGYLL *Lent by A. BROGDEN, ESQ., M.P.*
- WARD, MRS. E. M.**, Lansdowne Road, Notting Hill, London.
- 68 "THE TOWER, AYE, THE TOWER" *Lent by H. WALLIS, ESQ.*
- WATSON, J. D.**, Nailford, Godalming, Surrey.
- 69 THE POISON'D CUP.. .. . *Lent by F. MOWATT, ESQ.*
- WATTS, G. F., R.A.**, Little Holland House, Kensington, London.
Elected Associate of the Royal Academy, London, 1867; elected full member, 1867.
- 70 PORTRAIT OF THE POET BROWNING.
- 71 THE ANGEL OF DEATH.
- YEAMES, WM. F., A.R.A.**, Grove End Road, St. John's Wood, London.
Elected Associate of the Royal Academy, London, 1866.
- 72 QUEEN ELIZABETH AND HER COURT RECEIVING THE FRENCH AMBASSADORS
AFTER THE NEWS OF THE MASSACRE OF ST. BARTHOLOMEW HAD
REACHED ENGLAND *Lent by OCTAVIUS COOPE, ESQ.*

WATER-COLOUR PAINTINGS.

- ABSOLON, JOHN**, 106, Palace Gardens Terrace, The Mall, Kensington, London.
Member of the Institute of Painters in Water Colours.
- 73 SIR ROGER DE COVERLEY.
- BARRETT, G., the Late.**
- 74 SOLITUDE *Lent by THOS. BRASSEY, ESQ., M.P.*
- BRIERLY, OSWALD W.**, 38, Amptill Square, Regent's Park, London.
Associate of the Society of Painters in Water Colours.
- 75 HER MAJESTY'S SHIP GALATEA IN SYDNEY HARBOUR
Lent by H.R.H. THE PRINCE OF WALES.
- 76 HER MAJESTY'S SHIP GALATEA AMONGST ICEBERGS OFF CAPE HORN.
Lent by H.R.H. THE PRINCE OF WALES.
- 77 WRECKS OF THE ARMADA ON THE COAST OF IRELAND— *Lent by H. W. BIRCH, ESQ.*
- CALLOW, WILLIAM**, Great Missenden, Buckinghamshire.
Member of the Society of Painters in Water Colours.
- 78 CATHEDRAL OF LIMBURG-ON-THE-LAHN, SUMMER AFTERNOON.

- COOPER, T. S., R.A.**, Vernon Holme, Harbledown, Canterbury.
- 79 AN EVENING DRINK *Lent by H. A. BRASSEY, ESQ., M.P.*
- DEANE, W. W., the Late.**
Associate of the Society of Painters in Water Colours.
- 80 THE BULL-RING AT SEVILLE *Lent by W. EDMUND SIBETH, ESQ.*
- DOBSON, W. C. T., R.A.**, Eldon House, Hampstead, London.
Associate of the Society of Painters in Water Colours.
- 81 THE YOUNG NURSE *Lent by W. S. COOKSON, ESQ.*
- DUNCAN, E.**, 36, Upper Park Road, Hampstead, London.
Member of the Society of Painters in Water Colours.
- 82 LANDING SHEEP ON THE SHORE AT PORT MADOC, NORTH WALES.
- FOSTER, BIRKET**, The Hill, Witley, Surrey.
Member of the Society of Painters in Water Colours.
- 83 ST. MICHAEL'S MOUNT *Lent by EDWARD CROSS, ESQ.*
- 84 LANCASTER *Lent by JOHN H. FOSTER, ESQ.*
- FRIPP, ALFRED**, 1, Belle Vue, Hampstead, London.
- A DORSETSHIRE WOODMAN *Lent by W. EDMUND SIBETH, ESQ.*
- GILBERT, SIR JOHN, A.R.A.**, Vanbrugh Park, Blackheath, London.
President of the Society of Painters in Water Colours.
- 85 THE VIOLIN *Lent by HER MAJESTY THE QUEEN.*
- 86 THE BATTLE OF NASEBY *Lent by THOS. BRASSEY, ESQ., M.P.*
- 87 A TAVERN BRAWL *Lent by E. J. COLEMAN, ESQ.*
- 88 LOUIS XIV. TRANSACTING BUSINESS WITH HIS MINISTERS IN THE APARTMENTS
OF MADAME DE MAINTENON.
- 89 JOAN OF ARC ENTERING ORLEANS *Lent by CHARLES LEAF, ESQ.*
- GOODALL, E. A.**, 6, Wells Street, Oxford Street, London.
Member of the Society of Painters in Water Colours.
- 90 EARLY MORNING, RIVA DI SCHIAVONE, VENICE.. .. . *Lent by C. P. MELLY, ESQ.*
- HAAG, CARL.**, Ida Villa, 7, Lyndhurst Road, Hampstead, London.
Member of the Society of Painters in Water Colours.
- 91 HAPPINESS IN THE DESERT *Lent by W. S. COOKSON, ESQ.*
* * * "thy love-laboured strain,
"Twixt thee and thine a never-failing bond."—*Wordsworth.*
- 92 DANGER IN THE DESERT *Lent by W. S. COOKSON, ESQ.*
"Thrice is he armed that hath his quarrel just."—*Shakespeare.*
- 93 FILIAL LOVE.. .. . *Lent by H. A. HUNT, ESQ., C.B.*
- HALE, WILLIAM MATTHEW**, 35, Wigmore Street, Cavendish Square, London.
Associate of the Society of Painters in Water Colours.
- 94 TWILIGHT AFTER RAIN.
- HARPER, E.**
- 94a } EASTERN SCENES *Lent by SIR RICHARD WALLACE, BART., M.P.*
94b }

HUNT, A. W., Tor Villa, Kensington, London.

Member of the Society of Painters in Water Colours.

- 95 LOCH CORUISHK *Lent by W. S. CAINE, ESQ.*
 96 LLANDECWYN *Lent by W. S. CAINE, ESQ.*

HUNT, W., the Late.

Member of the Society of Painters in Water Colours.

- STILL LIFE—Quinces *Lent by W. EDMUND SIBETH, ESQ.*
 — STILL LIFE—Grapes *Lent by W. EDMUND SIBETH, ESQ.*

MOGFORD, J., 17, Park Road, Haverstock Hill, London, N.W.

Member of the Institute of Painters in Water Colours.

- 97 "DE PERICULO MARIS," Mont St. Michel, Normandy.
Lent by W. EDMUND SIBETH, ESQ.
 98 PARTING RAYS *Lent by W. LEAF, ESQ.*

MOLE, J. H., 7, Guildford Place, Russell Square, London.

Member of the Institute of Painters in Water Colours.

- 99 ON HAMPSTEAD HEATH *Lent by JAMES PATRY, ESQ.*

NEWTON, ALFRED P., 44A, Maddox Street, Regent Street, London, W.

Associate of the Society of Painters in Water Colours.

- 100 SHADES OF EVENING.

PALMER, S., Furze Hill House, Mead Vale, Redhill.

Member of the Society of Painters in Water Colours.

- 101 THE CURFEW *Lent by L. R. VALPY, ESQ.*
 " Oft on a plot of rising ground
 I hear the far-off curlew sound,
 Over some wide-water'd shore
 Swinging slow with sullen roar."—*Il Penseroso, Milton.*
 102 THE TOWER'D CITY *Lent by L. R. VALPY, ESQ.*
 " Such sights as youthful poets dream
 On summer eves, by haunted stream."—*L'Allegro, Milton.*

PINWELL, G. J., 52, Adelaide Road, London.

Member of the Society of Painters in Water Colours.

- 103 AT THE FOOT OF THE QUANTOCKS *Lent by G. E. STREET, ESQ., R.A.,*
Hon. Member of the Imperial
Academy of Fine Arts, Vienna.

POYNTER, E. J., A.R.A., Beamont Lodge, Wood Lane, Shepherd's Bush, London.

- 104 THE WEST WIND *Lent by A. BALDWIN, ESQ.*
 105 PORTRAIT *Lent by G. HOWARD, ESQ.*

READ, S., 55, Argyll Road, Kensington, London.

Associate of the Society of Painters in Water Colours.

- 106 INTERIOR OF THE CHURCH OF ST. LAURENCE, NUREMBERG
Lent by CHARLES LUCAS, ESQ.

ROBERTS, DAVID, the Late, R.A.

- GENERAL VIEW OF KARNAK *Lent by H. BICKNELL, ESQ.*
 — MOSQUE OF SULTAN KAITBEY, CAIRO *Lent by H. BICKNELL, ESQ.*
 — GENERAL VIEW OF CAIRO *Lent by H. BICKNELL, ESQ.*

SHIELDS, FREDERICK J., Ordsall Old Hall, Salford, Manchester.*Associate of the Society of Painters in Water Colours.*

- 107 RAHAB WAITING THE COMING OF JOSHUA *Lent by SIR WALTER JAMES, BART.*
 108 THE NAUTILUS *Lent by RICHARD JOHNSON, ESQ.*

SMITH, COLLINGWOOD (Treasurer of the Water Colour Society); Wyndham Lodge, Brixton Hill, London.*Member of the Society of Painters in Water Colours.*

- 109 THE PASS OF GLENCOE.
 110 THE QUEEN AND ROYAL FAMILY AT THE THANKSGIVING SERVICE,
 HELD IN ST. PAUL'S, ON THE RECOVERY OF H.R.H. THE PRINCE
 OF WALES, 1872.

TAYLER, F., 38, Avenue Road, Regent's Park, London.*Member of the Society of Painters in Water Colours.*

- 111 THE KEEPER'S DAUGHTER *Lent by W. GILBEY, ESQ.*
 112 ON THE PTARMIGAN HILLS *Lent by W. GILBEY, ESQ.*
 113 SHOOTING THE POPINJAY *Lent by H. A. HUNT, ESQ., C.B.*

"The Green Marksman, as if determined to bring the affair to a decision, took his horse from a person who held him, and, having previously looked carefully to his girths and the fitting of his saddle, vaulted on his back, and motioning with his hand for the bystanders to make way, set spurs, passed the place from which he was to fire at a gallop, and as he passed threw up the reins, turned sideways upon his saddle, discharged his carbine, and brought down the Popinjay."—*Old Mortality, Vol. I., Chap. iii.*

TOPHAM, F. W., Warwick House, 86, Adelaide Road, London.*Member of the Society of Painters in Water Colours.*

- 114 THE EVE OF THE FESTA *Lent by H. A. BRASSEY, ESQ., M.P.*
 115 A PASTORAL *Lent by W. S. COOKSON, ESQ.*

WALKER F., A.R.A., 3, St. Petersburg Place, Bayswater, London.*Member of the Society of Painters in Water Colours.*

- 116 AN AMATEUR *Lent by E. L. S. BENZON, ESQ.*
 117 THE FERRY *Lent by F. LEHMANN, ESQ.*

WARD, E. M., R.A., 1, Lansdowne Road, Notting Hill, London.

- 118 LA TOILETTE DES MORTS *Lent by GEORGE FOX, ESQ.*

WARREN, H., 53, Pall Mall, London.*President of the Institute of Painters in Water Colours.*

- 119 THE MAGI ON THEIR JOURNEY *Lent by HER MAJESTY THE QUEEN.*
 120 THE WALK TO EMMAUS *Lent by the REV. W. A. RICHMOND.*

WEIGALL, C., 233, Brompton Road, London.*Member of the Institute of Painters in Water Colours.*

- 121 LE TÊTE-À-TÊTE INTERROMPU.

ENGRAVINGS.

- BARLOW, T. O., A.R.A.**, Auburn Lodge, Victoria Road, Kensington, London.
- 122 HOUSE OF COMMONS IN 1860, after J. Phillip, R.A.
- 123 SISTERS OF MERCY, after Madame Henriette Browne.
- 124 THE DEATH OF CHATTERTON, after H. Wallis.
- BRANDARD, E. P.**, 2, Albion Grove, Barnsbury, London.
- 125 MEN-OF-WAR, PLYMOUTH—Rough Weather.
- COUSINS, S., R.A.**, 24, Camden Square, London.
- 126 BOLTON ABBEY IN THE OLDEN TIMES.
- 127 LOUIS XVI. AND FAMILY, PRISONERS IN THE TEMPLE.
- CRUIKSHANK, G.** 263, Hampstead Road, London.
- 128 FOUR FRONTISPICES TO "FAIRY LIBRARY."—Etchings.
- 129 OPENING OF THE GREAT INTERNATIONAL EXHIBITION IN LONDON, IN 1851. Etching.
- EVANS, E.**, Racquet Court, Fleet Street, London.
- 130 ENGRAVINGS ON WOOD.
- FAED, J.**, 14, Comely Bank, Edinburgh.
- 131 MEZZOTINT ENGRAVING OF HER GRACE THE DUCHESS OF SUTHERLAND.
- 132 THE YOUNG WALTONIAN, Mezzotint and Etching.
- FROMONT, E.**
- | | | |
|---|--|---|
| — | DUTY AND PLEASURE, after C. Green | } <i>Lent by the PROPRIETORS OF "THE GRAPHIC" ILLUSTRATED NEWSPAPER</i> |
| — | TASTING-ORDER AT THE LONDON DOCKS, after W. Small .. | |
- GRAVES, R., the Late, A.E.**, 20, Grove Terrace, Highgate Road, London.
- 133 MRS. GRAHAM, after Gainsborough.
- 134 MRS. LLOYD, after Reynolds.
- 135 DUCHESS OF DEVONSHIRE, after Gainsborough.
- GREATBATCH, W.**, 2, Crescent Place, Mornington Crescent, London.
- 136 DOGS OF MOUNT ST. BERNARD.
- 137 OUR SAVIOUR, after Carlo Dolce.
- HARRALL, H.**, 4, Palsgrave Place, Temple Bar, London.
- 138 ENGRAVING ON WOOD.
- 139 Ditto Ditto.
- 140 Ditto Ditto.
- Ditto Ditto

JEENS, C. H., 67, St. Paul's Road, Camden Square, London.

- 141 PARENTS OF CHRIST SEEKING HIM.
142 THE QUEEN AND PRINCE CONSORT DIVIDING THE POLL-TARFF.

LANE, R. J., the **Late, A.E.**

- 143 PORTRAIT OF H.S.H. PRINCE EDWARD OF SAXE-WEIMAR, C.B.

Lent by MRS. LANE.

- 143a PORTRAIT OF ALEX. COLVIN, ESQ.

LEIGHTON, JOHN, F.S.A., 12, Ormonde Terrace, Regent's Park, London.

- 144 PROOFS OF WOOD ENGRAVING, after drawings by the Artist.

LEWIS, C. G., 53, Charlotte Street, Portland Place, London.

- 145 FAMILY OF DEER IN THE FOREST OF FONTAINEBLEAU. Proof.
146 HIGHLAND SHEPHERD.
147 HUNTSMAN GOING TO COVER, after Rosa Bonheur.

NICHOLLS, G. P., Aldine Chambers, Paternoster Row, London.

- 148 WOOD ENGRAVING, after a drawing by F. W. Lawson.
149 THREE WOOD ENGRAVINGS; one after W. Leacke, and two after Birket Foster.

RIDGWAY, W., 3, Denmark Villas, Acton, Middlesex.

- 150 THE LIGHT OF THE WORLD, line engraving on copper, after Holman Hunt.
151 THE YOUNG MOTHER, line engraving on copper, after F. R. Pickersgill, R.A.

SADLER, J., 6, Southampton Street, Fitzroy Square, London.

- 152 OBERON AND TITANIA, after a drawing by Sir Noel Paton, R.S.A.
153 GOING TO THE CHRISTENING, after a drawing by A. Bellows.
154 THE DREAM OF EUGENE ARAM, after a drawing by Gustave Doré.
155 LES MISÉRABLES, after a painting by Gustave Dore.

SAUNDERS, A. N., 12, Surrey Terrace, Lewisham High Road, New Cross, London.

- 156 LORD LAWRENCE, engraved in Mezzotint, after J. R. Dicksee.

SAUNDERS, G., 12, Surrey Terrace, Lewisham High Road, New Cross, London.

- 157 CHOOSING THE WEDDING GOWN, after W. Mulready, R.A.
158 BOY WITH SHEEP, after T. Gainsborough, R.A.

SIMMONS, W. H., 247, Hampstead Road, London.

- 159 "THE POOR, THE POOR MAN'S FRIEND," after Thomas Faed, R.A.

SLOCOMBE, C. P., 31, King Henry's Walk, Islington, London.

- 160 AT ST. IVES, CORNWALL.—Pilchard Boats unloading.
161 KENSINGTON GARDENS AFTER RAIN.

- SLOCOMBE, E.**, 31, King Henry's Walk, Islington, London.
- 162 MARIAN—A fireside study.
- 163 FOUR ILLUSTRATIONS OF OVID'S METAMORPHOSES.
- SLOCOMBE, F.**, 31, King Henry's Walk, Islington, London.
- 164 THE RIVER THAMES, FROM THE TOWER OF LONDON.
- 165 MOONLIGHT, ON THE COAST OF WALES.
- STOCKS, LUMB, R.A.**, 9, Richmond Villa, Seven Sisters' Road, Holloway, London.
- 166 CLAUDE DUVAL, after W. P. Frith, R.A.
- 167 "O, NANNIE, WILT THOU GANG WI' ME?" after Thomas Faed, R.A.
- 168 THE GENTLE SHEPHERD, after Sir D. Wilkie, R.A.
- SWAIN, JOSEPH**, 6, Bouverie Street, Whitefriars, London.
- 169 FRAME OF WOOD ENGRAVINGS FOR BOOKS.
- THOMAS, W. L.**
- | | | | | | | | |
|------|--|----|----|----|----|----|--|
| 169a | THE SHEIKH, after Carl Haag | .. | .. | .. | .. | .. | } <i>Lent by the</i>
PROPRIETORS OF
"THE GRAPHIC"
ILLUSTRATED
NEWSPAPER. |
| 169b | HOUSELESS AND HUNGRY, after S. L. Fildes | .. | .. | .. | .. | | |
| 169c | AN ODALISQUE, after Richter | .. | .. | .. | .. | | |
| 169d | THOMAS CARLYLE, after a Photograph | .. | .. | .. | .. | | |
| 169e | EMPEROR NAPOLEON III. AFTER DEATH, from Drawing by
S. L. Fildes | .. | .. | .. | .. | | |
- TOMKINS, C. A.**, 8, Dover Terrace, Coldharbour Lane, Camberwell, London.
- 170 THE MAIDEN'S PRAYER, engraved on Steel, from the original picture by Perrault.
- 171 PORTRAIT OF THE RIGHT REV. J. W. COLENSO, D.D., BISHOP OF NATAL, engraved
on steel, from the original picture by S. Sidley.
- 172 JOCHABED.
- VINTER, JOHN ALFRED**, Lithographer in Ordinary to Her Majesty, 29, Monmouth Road
Bayswater, London.
- 173 BALMORAL, 1860, after Sir E. Landseer, R.A.
- WARD, G. R.**, 38, Fitzroy Square, London.
- 174 DWARKANNAUGHT, TAGORE, after Fred. Say.
- 175 PASHA OF EGYPT, after T. Brigstocke.
- 176 EARL OF HAREWOOD AND HOUNDS, after Sir Francis Grant, P.R.A.
- WHISTLER, J. A. M.**, 2, Lindsay Road, Battersea, London.
- 177 SIX ETCHINGS *Lent by* JAMES ANDERSON ROSE, ESQ.
- WILLMORE, A.**, 4, Compton Street, Regent's Square, London.
- 178 THE ASHES OF GERMANICUS, after J. M. W. Turner, R.A.
- 179 THE FOOT BRIDGE, after J. C. Hook, R.A.
- 180 THE SQUALL, after David Cox.
- 181 A CALM, after David Cox.