

REPORT OF THE JUDGES OF THE EXHIBITION, YORK, 1886.

We, the undersigned, the Judges appointed by the Council, beg leave to recommend to the Council the following distribution of Medals and Special Certificates, and of Certificates of Merit.

Exhibits which have already received Medals at previous Exhibitions of the Institute are excluded from awards of Medals, but those Exhibits to which a second Medal would otherwise be awarded receive Special Certificates, and these are distinguished in the following lists by asterisks.

Objects exhibited or invented by any of the Judges themselves are excluded from awards of Medals or Certificates: consequently the "Dececo" Water-closet and Flushing Cistern, exhibited by Messrs. Cliff & Co., which is an application of an invention of Mr. Rogers Field, is excluded from any award.

THE RICHARDSON MEDAL for an EXHIBIT SELECTED FROM THE ENTIRE EXHIBITION will be awarded by the Judges in case of pre-eminent merit only.

MEDALS AND STARRED CERTIFICATES.

CLASS I.—CONSTRUCTION AND MACHINERY.

- CASEBOURNE & Co., *West Hartlepool*, for Faija's Cement Testing Machine.
 DÆKER HOSPITALS AND HUTS FACTORY, *London*, for Dæker Portable Hospital.
 HARRIS, J. F. & G., *London*, for Moulded Wood Decoration.
 KENWORTHY, E. N., & Co., *Oldham*, for Equipoise Wringing and Mangling Machine.
 *LEGGOTT, W. & R., *Bradford*, for Opener for Fanlight and Skylight.
 WATERPROOF PAPER AND CANVAS COMPANY, *London*, for Willesden Paper Roofing.

CLASS II.—SEWERAGE AND WATER SUPPLY.

- *CLIFF, J., & SONS, *Leeds*, for Imperial Porcelain Bath.
 *GREENALL, J., *Manchester*, for Steam-Washer.
 *MORRELL'S SANITARY APPLIANCE COMPANY, *Manchester*, for Portable Cinder Sifting Ash Closet.
 *MOULE'S EARTH CLOSET COMPANY, *London*, for Moule's Earth Closet.

CLASS III.—HEATING, LIGHTING, AND VENTILATING.

- DAVIS, H. & C., & Co., *London*, for Enamelled "Metropolitan" Gas Cooking Stove.
 *DAVIS, H. & C., & Co., *London*, for Fibre Asbestos Open Gas Fire.
 *FOULDS, E., *Leeds*, for Crabtree Kitchen Range.
 WOODHOUSE AND RAWSON ELECTRIC SUPPLY COMPANY OF GREAT BRITAIN, *Bradford*, for Magnetic Cut Out for Electric Lighting.
 *WOODHOUSE AND RAWSON ELECTRIC SUPPLY COMPANY OF GREAT BRITAIN, *Bradford*, for Incandescent Lamps.

CLASS IV.—PERSONAL HYGIENE, FOODS, FILTERS, AND DISINFECTANTS.

- AYLESBURY DAIRY Co., *London*, for Exhibit of Dairy Appliances.
 *CALVERT, F. C., & Co., *Manchester*, for Carbolic Acid for Disinfecting Purposes.
 DR. JAEGER'S SANITARY WOOLLEN SYSTEM Co., *London*, for Sanitary Clothing.
 *HANCOCK, F. & C., *Dudley*, for Machines for domestic use.
 *LYON, WASHINGTON, *London*, for Lyon's Steam Disinfecter.
 WARD, E., & Co., *Bradford*, for Exhibit of Sanitary Clothing.
 WILBERFORCE SCHOOL FOR THE BLIND, *York*, for Wickerwork and Brushes.
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CERTIFICATES OF MERIT.

We further recommend that Certificates of Merit be awarded to the undermentioned Exhibitors:—

CLASS I.—CONSTRUCTION AND MACHINERY.

- CLIFF, J., & SONS, *Leeds*, for Hall's Hanging Tiles.
 CLIFF, J., & SONS, *Leeds*, for White and Coloured Glazed Bricks.
 CORDINGLEY, T. & SON, *Bradford*, for Improved Fibrous Plaster-Work.
 DUFFY, M. C., & SON, *London*, for Immovable "Acme" System of Solid Wood Block Flooring.

HINDLE, NORTON & Co., *Oldham*, for Acme Door Check and Spring (double action).
 KENWORTHY, E. N., & Co., *Oldham*, for Paragon Washing Machines.
 NIGHTINGALE & Co., *Great Grimsby*, for Method of Wood Block Flooring.
 SMITH, E., & Co., *Coalville*, for Vitreous Floor Tiles.
 WORTLEY FIRE CLAY COMPANY, *Leeds*, for White and Coloured Glazed Bricks.
 WORTLEY FIRE CLAY COMPANY, *Leeds*, for Salt-glazed Bricks.
 WRIGHT & Co., *London*, for Fireproof Fixing Blocks.

CLASS II.—SEWERAGE AND WATER SUPPLY.

ADAMS & Co., *York*, for 30 Gallon Combined Flush-tank and Grease Interceptor.
 BAILEY & Co., *London*, for Woodman's Stoneware Screw Plug and Collar, for access to Drains.
 BRAITHWAITE, H., & Co., *Leeds*, for Siphon Action Water-waste Preventor.
 BURN & BAILLIE, *London*, for Galvanized Cast-iron Air-tight Inspection Chamber and Drain Pipes.
 BURN & BAILLIE, *London*, for "Eclipse" Apparatus for Testing Drain and other Pipes.
 BURN & BAILLIE, *London*, for Indiarubber Expanding Plug for Drain Testing.
 BARRETT, H. J., *Hull*, for Steel Wheel for Sanitary Carts.
 CASEBOURNE & Co., *West Hartlepool*, for Schaible's Apparatus for the Estimation of Carbonate of Lime in Cement.
 CLIFF, J., & SONS, *Leeds*, for White Enamelled Sinks.
 CLIFF, J., & SONS, *Leeds*, for White Enamelled Urinal Floor Channel.
 CLIFF, J., & SONS, *Leeds*, for Simplex Reversible Gully.
 CLIFF, J., & SONS, *Leeds*, for "Imperial" Slop Sink.
 POTTER, G. W., *London*, for "Siphozella" Pipe Fastening.
 PHILLIPS, W., & SON, *London*, for Bronte's Air-tight Cast-iron Man-hole Cover.
 TROTT, H., *London*, for Bib Valves for Hot and Cold Water.
 WHITE, W. P., & Co., *London*, for Nicholl's Hospital Pail.
 WORTLEY FIRE CLAY COMPANY, *Leeds*, for White Enamelled Sinks.
 WORTLEY FIRE CLAY COMPANY, *Leeds*, for Simpson's Street Gully.
 WRAGG, T., & SONS, *Burton-on-Trent*, for Mawbey's Joint for Stone-ware Pipes.

CLASS III.—HEATING, LIGHTING, AND VENTILATING.

GREENALL, J., *Manchester*, for Marsh-Greenall Regenerative Gas Heating Stove.
 HINDLEY, E. S., *Bornton, Dorset.*, for Alcazar Vertical Steam Engine.
 WILSON, CHAS., & SONS, *Leeds*, for Radiating Gas Fire.

WOODHOUSE AND RAWSON ELECTRIC SUPPLY COMPANY OF GREAT BRITAIN, *Bradford*, for Combination Plug and Metre Bridge (Davies and Moynhan's Patent).
 WRIGHT, J., & Co., *Birmingham*, for large Gas Cooking Stove.

CLASS IV.—PERSONAL HYGIENE, FOODS, FILTERS, AND DISINFECTANTS.

AYLESBURY DAIRY Co., *London*, for Butter Squeezing Machine.
 BOLONACHI, A. J. M., *London*, for Chocolate Paste.
 BURROUGHS, WELLCOME, & Co., *London*, for Preparations of Digestive Ferments.
 BURROUGHS, WELLCOME, & Co., *London*, for "Lanolin" Soap.
 CALVERT, F. C., & Co., *Manchester*, for Preparations from Carbolic Acid.
 CALVERT, F. C., & Co., *Manchester*, for Carbolic Acid Soaps.
 CLARK, E., & Co., *London*, for Optimus Coffee Extract.
 DILLON, E. & C., *York*, for Ventilating Corsets.
 DR. JAEGER'S SANITARY WOOLLEN SYSTEM Co., *London*, for Camel's Hair Clothing and Bedding.
 EDMUNDS, JOS., *London*, for Chutneys.
 HANCOCK, F. & C., *Dudley*, for New Cooker and Steamer.
 JEYES' SANITARY COMPOUNDS Co., *London*, for Perfect Purifier.
 KING & Co., *Hull*, for Fishburn's Tubular Refrigerators.
 KING & Co., *Hull*, for Fishburn's Scarborough Freezer.
 LONGFORD WIRE, IRON, AND STEEL Co., *Warrington*, for Wood's Double Woven Galvanized Steel Wire Spring Mattress.
 NORTH OF ENGLAND SCHOOL FURNISHING Co., *Darlington*, for Westminster Single Desk, with Sliding Top and Convex Support to the Seat.
 SCOTT, A. & R., *Glasgow*, for Improved Oat Cakes.
 SENN, C. H., *London*, for Preserved Fruits.
 TORRANCE, W. H., *Edinburgh*, for Rusks, Oat Cakes, and Shortbread.
 WARD, E., & Co., *Bradford*, for Hygeia Corset.
 WARD, E., & Co., *Bradford*, for "Arachne" Flannel.

EXHIBITS SELECTED FOR FURTHER PRACTICAL TRIAL.

With regard to the following Exhibits, the Judges are unable to give their decision until they have submitted the Exhibits to a more complete and extended practical examination than is possible at the Exhibition:—

CLASS I.—CONSTRUCTION AND MACHINERY.

CASEBOURNE & Co., *West Hartlepool*, Portland Cement.
 SANITARY DRY LIME Co., *Liverpool*, Dry Mortar.
 SANITARY DRY LIME Co., *Liverpool*, Sanitary Dry Lime.

CLASS II.—SEWERAGE AND WATER SUPPLY.

ADAMS & Co., *York*, Sewer Ventilator and Sewer Gas Deodorizer for Manholes.
 BURN & BAILIE, *London*, Combination Bath Fittings.
 CLIFF, J., & SONS, *Leeds*, "Cecil" Slop Sink with Flushing Rim.
 DOULTON & Co., *London*, Lavatory Valves.
 DOULTON & Co., *London*, Self-adjusting Joints for Stoneware Pipes.
 GRAY, J. W., & SON, *London*, Howatson Water Softener.
 MAIGNEN, P. A., *London*, Dry Water-softening Process.
 WHITE, W. P., & Co., *London*, Dry Closets.
 WRAGG, T., & SON, *Swadlincote*, Hassall's Safety Joints for Drains.

CLASS III.—HEATING, LIGHTING, AND VENTILATING.

ÆOLUS WATERSPRAY VENTILATING Co., *London*, Æolus Waterspray Ventilators.
 ÆOLUS WATERSPRAY VENTILATING Co., *London*, Large Ventilating Gas Stove.
 ÆOLUS WATERSPRAY VENTILATING Co., *London*, Electric Lighting by Primary Battery.
 DOULTON & Co., *London*, Open Portable Radiating Tile Stove for Gas.
 HALE, R. W., & Co., *London*, Exhaust and Downcast Ventilators.
 HONEYMAN, J., *Glasgow*, Diaphragm Ventilator.
 KING & Co., *Hull*, Phillip's Ventilator.
 KITE, C., & Co., *London*, Exhaust, Downcast, and Chimney-breast Ventilators.
 TORRANCE, W. H., *Ellinburgh*, "Yorkshireman" Gas Oven.
 WRIGHT, E. G., *Portsmouth*, Reliance Chimney Cowl.

CLASS IV.—PERSONAL HYGIENE, FOODS, FILTERS, AND DISINFECTANTS.

BAILEY & Co., *London*, Irving's Filter.
 BARSTOW, J., *Pontefract*, Combination Water Filters.
 BURROUGHS, WELLCOME, & Co., *London*, Malt Extract.
 CALVERT & Co., *Manchester*, Borophenol.
 CRAVEN, M. A., & SON, *York*, Coloured Confectionery.
 DOULTON & Co., *London*, Improved Manganous Carbon Filter.
 DUFFIN, T., & SONS, *York*, Mineral Waters.
 GITTENS, C. E., *London*, Queen Filter.
 LEACH, T., *York*, Mineral Waters.
 LEVER, BROS., *Warrington*, Sunlight Self-washer Soap.
 MAGNETIC FILTER Co., *London*, Spencer's Magnetic Filter.
 MAIGNEN, P. A., *London*, Filtre Rapide.
 MONTGOMERIE, J., *Glasgow*, Malt Bread and Biscuits.
 SANITARY DRY LIME Co., *Liverpool*, Sanitary Dry Lime Disinfecting Powder.
 SILICATED CARBON FILTER Co., *London*, Improved Silicated Carbon Filters.
 WOOLLEY, JAMES, SONS, & Co., *Manchester*, Sanitary Rose Powder.

SUPPLEMENTARY REPORT OF THE JUDGES ON THE EXHIBITS DEFERRED FOR FURTHER PRACTICAL TRIAL.

Out of the forty-two exhibits deferred for further practical trial, as mentioned in the Report, the following were submitted by the exhibitors:

CASEBOURNE & Co., *West Hartlepool*, Portland Cement.
 SANITARY DRY LIME Co., *Liverpool*, Dry Mortar.
 *SANITARY DRY LIME Co., *Liverpool*, Sanitary Dry Lime.
 BURN & BAILIE, *London*, Combination Bath Fittings.
 DOULTON & Co., *London*, Lavatory Valves.
 DOULTON & Co., *London*, Self-adjusting Joints for Stoneware Pipes.
 *GRAY, J. W., & SON, *London*, Howatson Water Softener.
 WHITE, W. P., & Co., *London*, Dry Closets.
 WRAGG, T., & SON, *Swadlincote*, Hassall's Safety Joints for Drains.
 *ÆOLUS WATERSPRAY VENTILATING Co., *London*, Æolus Waterspray Ventilators.
 *ÆOLUS WATERSPRAY VENTILATING Co., *London*, Large Ventilating Gas Stove.
 *HONEYMAN, J., *Glasgow*, Diaphragm Ventilator.
 WRIGHT, E. G., *Portsmouth*, Reliance Chimney Cowl.
 *BAILEY & Co., *London*, Irving's Filter.
 BURROUGHS, WELLCOME, & Co., *London*, Malt Extract.
 CALVERT & Co., *Manchester*, Boro-Phenol.
 CRAVEN, M. A., & SON, *York*, Coloured Confectionery.
 DUFFIN, T., & SONS, *York*, Mineral Waters.
 GITTENS, C. E., *London*, Queen Filter.
 LEACH, T., *York*, Mineral Waters.
 LEVER, BROS., *Warrington*, Sunlight Self-washer Soap.
 *MAGNETIC FILTER Co., *London*, Spencer's Magnetic Filter.
 MONTGOMERIE, J., *Glasgow*, Malt Bread and Biscuits.
 *SANITARY DRY LIME Co., *Liverpool*, Sanitary Dry Lime Disinfecting Powder.
 SILICATED CARBON FILTER Co., *London*, Improved Silicated Carbon Filters.
 WOOLLEY, JAMES, SONS, & Co., *Manchester*, Sanitary Rose Powder.
 FRASER, J., *Leeds*, Atlas Telephone.
 THE STANHOPE Co., LIMITED, *London*, Electro-Magnetic Telephones.

We recommend that Medals should be awarded to the under-mentioned Exhibitors:—

DOULTON & Co., *Lambeth*, for Self-adjusting Joint for Stoneware Pipes.
 WHITE, W. P. & Co., *London*, for Nicholls' Soot and Salt Closet.
 WRAGG, T., & SON, *Burton-on-Trent*, for Hassall's Joint for Stoneware Pipes.
 M. A. CRAVEN & SON, *York*, for Coloured Confectionery.

We also recommend that Certificates of Merit should be awarded to the undermentioned exhibitors:—

BURN & BAILLIE, *London*, for Combination Bath Fittings.
 BURROUGHS, WELLCOME & Co., *London*, for Malt Extract.
 CALVERT, F. C., & Co., *Manchester*, for Boro-Phenol.
 MONTGOMERIE, J., *Glasgow*, for Infant Rusks and Nursery Biscuits.
 THE STANHOPE Co., LIMITED, *London*, for Electro-Magnetic Telephones.
 WOOLLEY, JAMES, & Co., *Manchester*, for Sanitary Rose Powder.
 LEVER BROS., *Warrington*, for Sunlight Soap.

BROAD & Co., *Paddington*, for Rock Buff Facing Bricks.

This was exhibited at Leicester, but the testing was not completed in time for the last Report.

We have not yet had sufficient opportunity of testing the exhibits marked with an asterisk, and they are therefore of necessity deferred for a future Report.

We regret that we are unable to recommend the award of the Richardson Medal.

W. H. CORFIELD, CHAIRMAN.
 A. WYNTER BLYTH.
 W. EASSIE.
 ROGERS FIELD.
 HENRY LAW.
 J. WALLACE PEGGS.
 H. SAXON SNELL.
 ERNEST TURNER.

CLASS V.—MISCELLANEOUS ARTICLES OF SANITARY INTEREST NOT INCLUDED IN THE ABOVE CLASSES.

ÆOLUS WATERSPRAY VENTILATING Co., *London*, Bing's Acoustic Mechanical Telephones.
 J. FRASER, *Leeds*, Atlas Telephone.
 THE STANHOPE Co., LIMITED, *London*, Electro-Magnetic Telephones.
 THE STANHOPE Co., LIMITED, *London*, Bing's Acoustic Mechanical Telephones.

Stanford's Joints for Stoneware Pipes, and Stott's Gas Governor, which have gained Medals and Starred Certificates at previous Exhibitions, are now so well known, and their Merits are so fully appreciated, that the Judges do not think it necessary to make any further award for them.

(Signed) W. H. CORFIELD, M.A., M.D., Oxon., *Chairman*.
 A. WYNTER BLYTH, M.R.C.S.
 F. S. B. F. DE CHAUMONT, M.D., F.R.S.
 W. EASSIE, C.E., F.L.S., F.G.S.
 ROGERS FIELD, B.A., M.Inst.C.E.
 HENRY LAW, M.Inst.C.E.
 J. WALLACE PEGGS, A.M.Inst.C.E.
 H. SAXON SNELL, F.R.I.B.A.
 ERNEST TURNER, F.R.I.B.A.

LOUIS PARKES, M.D.,
Secretary to the Judges.