

Let not the great intellect that does exist in the Scotch character in Glasgow be blunted by the fear of expense in connection with these matters, but do be determined that you will have these changes carried out which I have mentioned, at whatever cost. I am certain that the day will come when you will find that the money spent has been returned to you, in the same way as the money has been returned to you, over and over again, which you invested in the Loch Katrine supply.

I thank you most heartily for the kind attention you have given to my observations. I beg just to say, in conclusion, that although I appear here as the Chairman of the Council of the Sanitary Institute, these views are mine alone, and not necessarily the views of the Sanitary Institute itself. On some points there may be individual differences on point of detail, but with regard to the principles upon which those views are founded, I am quite certain that they have the support of the Institute.

## REPORT OF THE JUDGES OF THE EXHIBITION, NEWCASTLE-UPON-TYNE, 1882.

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### SUPPLEMENT.

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#### MEDALS AND CERTIFICATES.

Awarded to Exhibits deferred for further practical trial at the  
Exhibition at Newcastle, 1882.

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#### MEDALS.

DOULTON & Co., *London*, for Anti-percussion Ball-valve.  
ROBERTS, CHARLES G., *Haslemere*, for Buck's Automatic Rain Water  
Separator.  
SANITAS COMPANY (LIMITED), *London*, for Sanitas Oil.

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#### CERTIFICATES.

ANTISEPTIC APPARATUS MANUFACTURING COMPANY, *London*, for Red  
Cross Antiseptic Fluid.  
BRITISH & FOREIGN MINERAL WATERS COMPANY, *Glasgow*, for  
Potash, Soda, and Seltzer Waters and Lemonade.  
EDMUNDS, J., *London*, for Currie Powders.  
IRVINE & Co., *Gateshead*, for Mustard.  
KITE, C. & Co., *London*, for Outlet Ventilator.  
MIGNEN, P. A., *London*, for Improved Filtre Rapide.

REPORT ON NON-POISONOUS PAINTS. CONGRESS  
AT GLASGOW, 1883.

THE question of poisoning by the use of lead paints is one of such great importance to all classes of the community, that the Council have considered it advisable to submit to the Congress a Report, which was made a short time before the present Congress by a Committee specially appointed to consider the matter, in consequence of circumstances which arose at the Exhibition at Newcastle in 1882.

REPORT TO THE COUNCIL OF THE SANITARY INSTITUTE.

WE, the Sub-Committee of the Judges appointed to make an investigation into the composition and properties of non-poisonous white paints, and their driers, more especially as to the presence or absence of lead, beg to report as follows:—We have examined three different non-poisonous white paints, and the driers supplied with them, and we have found that, although all the paints are practically free from lead, two out of the three driers supplied with them contain lead in large quantities. The Committee would call special attention to this fact, for, although according to the directions of the makers the driers should be used in the proportion of only about 7 or 8 per cent., they are in practice mixed with the paints to a very much greater extent, and consequently the paint, when prepared for use with driers containing lead, becomes a poisonous paint. It is, therefore, essential when using a so-called non-poisonous paint, to carefully ascertain that the driers used, as well as the paint itself, are free from lead. There appears, moreover, no substantial reason for the use of lead driers, for in the only instance in which the paint and driers were both free from lead, the result obtained in the trials made to ascertain the comparative merits of the different paints for decorative purposes, was superior to either of the others.

We have not been able to continue the experiments for a sufficient time to report upon the durability of the various paints.

W. H. CORFIELD, M.A., M.D.  
H. C. BARTLETT, Ph.D., F.C.S.  
ERNEST TURNER, F.R.I.B.A.

REPORT OF THE JUDGES OF THE EXHIBITION,  
GLASGOW, 1883.

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 list by asterisks.

MEDALS AND SPECIAL CERTIFICATES.

We recommend that Medals or Special Certificates should be awarded to the undermentioned exhibitors:—

CLASS I.—CONSTRUCTION AND MACHINERY.

ORB, J. B., & Co., *Charlton, London*, for Leadless "Charlton White" Paint and Dryers.  
SCOTTISH ASBESTOS Co., *Glasgow*, for Scottish Asbestos.  
ALUMINIUM CROWN METAL Co., *Glasgow*, for Aluminium Crown Metal.  
DICK, ALEX., *London*, for Delta Metal.  
\*BRADFORD & Co., *Manchester*, for Washing Machines.

CLASS II.—SEWERAGE AND WATER SUPPLY.

\*BRITISH SANITARY Co., *Glasgow*, for Improved Self-acting Earth-Closets.  
HEAP, R. R., *Manchester*, for Dry Earth or Ashes Closet.  
BUCHAN, W. P., *Glasgow*, for his exhibit of Sanitary Appliances.  
STEWART, J., SEN., *Glasgow*, for his exhibit of Stoneware Disconnecting Traps.  
\*DOULTON & Co., *Lambeth, London*, for Anti-percussion High-pressure Valves.  
CLIFF, JOSEPH, & SONS, *Leeds*, for Porcelain Bath.  
HALL, JOHN, & Co., *Stourbridge*, for Fire Clay Enamelled Bath.  
\*ROBERTS, C. G., *Haslemere, Surrey*, for Automatic Rain-water Separator.

MORRISON, W. B., *Glasgow*, for Wedgwood Ornamental Tiles.  
 \*STEWART, J., Sen., *Glasgow*, for Stoneware Pipes with Stanford's Joint.

#### CLASS III.—HEATING, LIGHTING, AND VENTILATING.

\*DOULTON & Co., *Lambeth, London*, for Ventilating Tile Stove.  
 KEITH, J., *London & Edinburgh*, for Challenge Hot-water Boiler.  
 SHAW, A., & SON, *Glasgow*, for "Sine qua non" Open and Close Fire Range.  
 WALKER, TURNBULL, & Co., *Falkirk*, for the Artizan Cooking Range.  
 WHITE & BRADFORD, *Bowness*, for Cooking Range with Revolving Fire for the Prevention of Smoke.  
 \*WILSON ENGINEERING COMPANY, *London*, for the "Wilson Cooking Range."  
 \*BROWN, A., & Co., *Glasgow*, for the "Stott" Gas Governor.  
 \*ELLISON, J. E., *Leeds*, for Conical Ventilators.

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

\*CHORLTON & DUGDALE, *Manchester*, for "Excelsior" Spring Mattress.  
 HANCOCK, F. & C., *Dudley, Worcestershire*, for their exhibit of Machines for Domestic Use.  
 \*MAIGNEN, P. A., *London*, for Filtre Rapide.  
 \*CALVERT, F. C., & Co., *Manchester*, for Carbolic Acid, and Preparations from it.

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

HILLIARD, W. B., & SONS, *Glasgow*, for their exhibit of Hospital and Sick Room Appliances.  
 MEYER, H. C., *New York*, for the Sanitary Engineer of New York Newspaper.  
 WENTWORTH, F., & Co., *London*, for "Kredemnon" Life-saving Garments.

#### CERTIFICATES OF MERIT.

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

#### CLASS I.—CONSTRUCTION AND MACHINERY.

PENNYCOOK PATENT GLAZING & ENGINEERING COMPANY, *Glasgow*, for Glazing without putty.  
 WALTON, F., & Co., *London*, for "Lincrusta Walton."

#### CLASS II.—SEWERAGE AND WATER SUPPLY.

DOULTON & Co., *Lambeth, London*, for "Lambeth" Trough Closet with Automatic Flush Tank.  
 DOULTON & Co., *Lambeth, London*, for the "Lambeth" Flush-out Closet.  
 GILBERT, E. & A. E., *Broughty Ferry, Forfarshire*, for Improved Seat for Water Closets.  
 MORRISON, W. B., *Glasgow*, for the "National" Water-closet.  
 HARRISON, T. HARNETT, *Liverpool*, for Iron Basket Sewage-strainer.  
 BUCHAN, W. P., *Glasgow*, for Disconnecting Drain Trap.  
 BUCHAN, W. P., *Glasgow*, for Grease Trap for Kitchen Sinks.  
 CRAIG, J. & M., *Kilmarnock*, for their exhibit of Stoneware Disconnecting Traps.  
 STEWART, J., Sen., *Glasgow*, for Disconnecting Chamber for House Drains, with open Stoneware Channels.  
 CRAIG, J. & M., *Kilmarnock*, for White Enamelled Sinks.  
 SHANKS & Co., *Glasgow*, for Cast Iron Bath.  
 SHANKS & Co., *Glasgow*, for Porcelain Lavatories, with movable caps for access to fittings.  
 SHANKS & Co., *Glasgow*, for "Eureka" Spray and Plunge Bath.  
 ROSS, W., *Glasgow*, for Improved Paragon Valve.  
 ANGELL, A. T., *London*, for Air-tight Man-hole Covers.  
 BINNIE, J., *Gartcosh, Glasgow*, for his exhibit of Salt-glazed Fire-clay Sewer-pipes.  
 DOULTON & Co., *Lambeth, London*, for Silicon Tread for Steps.  
 GANDY, M., *Liverpool*, for Cotton Machine Belting.  
 GANDY, M., *Liverpool*, for Steil's Fastener for Machine Belting.

#### CLASS III.—HEATING, LIGHTING, AND VENTILATING.

HIDES & WIGFULL, *Sheffield*, for Tortoise Slow Combustion Stoves.  
 HIDES & WIGFULL, *Sheffield*, for Tortoise Laundry Stove.  
 CARRON Co., *Falkirk*, for Combined Close Fire and Gas Cooking Range.  
 MCGEOCH, W., & Co., *Glasgow*, for Dows' Close and Open Fire Cooking Range.  
 WALKER, TURNBULL & Co., *Falkirk*, for the Simplex Cooking Range.  
 HENDERSON, OSBERT, *Glasgow*, for the Albo-Carbon Light.  
 COOPER, H. W., & Co., *London*, for Glass Revolving and Sliding Ventilators.  
 ELLISON, J. E., *Leeds*, for "Radiator" Ventilator, with Screw Action.  
 HILL & HEY, *Halifax*, for Double Current Ventilators.  
 KITE, C., & Co., *London*, for Noiseless Chimney Breast Outlet Ventilator.

KITE, C., & Co., *London*, for Wall Inlet Ventilator.  
LEGGOTT, W. & R., *Bradford*, for Opener for Fanlight.

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

BILLINGTON BROS., *Liverpool*, for Spring Mattresses.  
CHORLTON & DUGDALE, *Manchester*, for "Excelsior" Ships' Berth.  
GARDNER, A., & SON, *Glasgow*, for Spring Mattress.  
GARDNER, A., & SON, *Glasgow*, for Parquet Flooring.  
GROVES, E. K., *Bristol*, for Self-acting Sick Bed.  
GROSVENOR, F., *Glasgow*, for Stoneware Churns.  
HENDERSON, OSBERT, *Glasgow*, for Pendulous Food-warmers.  
VERNON'S PATENT CHINA AND GLASS COMPANY, *London*, for "Noiseless Ware."  
JEYES' SANITARY COMPOUND CO., *London and Glasgow*, for Jeyes' Disinfecting Fluid.

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

HILLIARD, W. B., & SONS, *Glasgow*, for Isolating Curtain.  
HILLIARD, W. B., & SONS, *Glasgow*, for Burn and Wound Boxes.  
DURAND CLAYE, A., *Paris*, for his exhibit of Drawings and Books Relating to Disposal of Sewage in Paris.  
SMITH, ELDER & Co., *London*, for Sanitary Publications.

We would explain that no awards have been made for cowls or similar ventilators, as a committee especially appointed by the Sanitary Institute, to carry out experiments on cowls, have not yet completed their investigations. It was mentioned in a recent report of the Council that this committee had found that the indications of the ordinary air meters which are used for testing cowls are unreliable. No definite conclusions can therefore be hoped for with reference to the comparison of cowls, until more accurate means of measurement have been arrived at. The committee are now directing their attention to this object.

Objects exhibited or invented by any of the judges are excluded from awards of medals or certificates.

EXHIBITS SELECTED FOR FURTHER PRACTICAL  
TRIAL.

With regard to the following Exhibits we are unable to give our decisions until we have submitted them to a more complete and extended practical examination than is possible at the Exhibition:—

CLASS I.—CONSTRUCTION AND MACHINERY.

WOOLLAMS, W., & Co., *London*, Pigments and Paper Hangings.  
BOROUGH LEATHER WAREHOUSE COMPANY, *London*, Crocodile Hide Leather.  
GARDNER, A., & SON, *Glasgow*, Preserved Timber.  
ANDREW & Co., *Stockport*, Bishop's Gas Engine.  
CROSSLEY BROS., *Manchester*, Otto Silent Gas Engine.  
HILDESHEIM, J., *Glasgow*, Dicks' L'Extincteur.  
FOTHERINGHAM, D., *Glasgow*, Fire Extinguisher.  
MILLER, W., *Glasgow*, Extincteur.

CLASS II.—SEWERAGE AND WATER SUPPLY.

SHANKS & Co., *Glasgow*, Waste-preventing Cistern.  
BOULNOIS, H. P., *Portsmouth*, Acme Sewer Pipes.  
HARRISSON, T. HARNETT, *Liverpool*, Improved Collar-joint.  
DOULTON & Co., *Lambeth, London*, Burning Brass to Lead.  
ANGELL, A. T., *London*, Lip Siphon Trap.  
EMPTAGE, D., *Margate*, Round Pipe Traps.

CLASS III.—HEATING, COOKING LIGHTING, AND  
VENTILATION.

ADAM'S GAS HEATING & STOVE Co., *Glasgow*, Gas Heating Stove.  
BACON, J., L., & Co., *London*, Hot Water Apparatus.  
CARRICK, J., *Glasgow*, Ventilating Open Fire Grate.  
HENDERSON, OSBERT, *Glasgow*, Gas Stoves.  
SHAW, A., & SON, *Glasgow*, "Verity's" Asbestos Gas Fire.  
SINCLAIR, G., *Leith*, Mechanical Stoker.  
ADAM'S GAS HEATING & STOVE Co., *Glasgow*, Gas Cooking Stove.  
HENDERSON, O., *Glasgow*, "Eureka" Gas Cooking Stove.  
SYDNEY, E., *London*, Working Man's Gas Cooker.  
WADDELL & MAIN, *Glasgow*, Universal Domestic Cooking Stove.  
WRIGHT & Co., *Birmingham*, "Eureka" Gas Cooker.  
MILLER, R., *Glasgow*, Peebles Gas Governor.

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

BRADBURY & Co., *Oldham*, Sewing Machines.  
SINGER SEWING MACHINE Co., *Glasgow*, Sewing Machines.  
DOULTON & Co., *Lambeth, London*, Filters of Manganous Carbon.  
GROSVENOR, F., *Glasgow*, Filters.  
HENDERSON, O., *Glasgow*, Silicated Carbon Filters.  
MAIGNEN, P. A., *London*, Anti-Calcareous Powders.  
BEVERIDGE & Co., *Glasgow*, Pickles, Sauces, and Essence of Coffee.  
CONDENSED MILK Co., *Limerick*, Condensed Milk.  
IRVINE & Co., *Gateshead-on-Tyne*, Mustard.  
INDIAN TEA Co., *Glasgow*, Indian Tea.  
SCOTT, A., & Co., *Glasgow*, Oat-flour.  
CALVERT, F. C., & Co., *Manchester*, Sulpho-Carbolates.  
CALVERT, F. C. & Co., *Manchester*, 50% Carbolic Disinfecting Powder.  
OVERBECK, H. E., & Co., *Liverpool*, Pyridine Disinfecting Powder.  
RIMMEL, EUGENE, *London*, Aromatic Ozonizer.  
SARACEN SOAP Co., *Glasgow*, Sanitary Soap.  
STANFORD, E. C. C., *Dalmuir*, Seaweed Charcoal.  
WHEELER, J., *Ilfracombe, Pixene*.

No Award can be made of the Richardson Gold Medal, or of the Silver Medals offered by the Exeter Gas Company, until the deferred trials have taken place.

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

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APPENDIX.