STEAM & HOT WATER BOILERS
1840-1930

Hot Water Boilers

ADVERTS FROM CHAS HOOD TEXTBOOKS OF 1891 & 1897
A PRACTICAL TREATISE
UPON
WARMING BUILDINGS
BY
HOT WATER,
AND UPON
HEAT AND HEATING APPLIANCES IN GENERAL,
WITH
AN INQUIRY RESPECTING VENTILATION, THE CAUSE AND
ACTION OF DRAUGHTS IN CHIMNEYS OR FLUES,
AND THE LAWS RELATING TO COMBUSTION.

BY
CHAS. HOOD, F.R.S., F.R.A.S., &c.

RE-WRITTEN BY
FREDERICK DYE,
AUTHOR OF 'HOT WATER SUPPLY,' ETC., ETC.

E. & F. N. SPON, 125, STRAND, LONDON.
NEW YORK: 12, CORTLANDT STREET.
1891.
THIS IS THE AGE OF "FIRSTS,"
AND KEITH'S SPECIALTIES.
Manufactured under 50 JAMES KEITH PATENTS, in GREAT BRITAIN,
UNITED STATES, and CANADA,
"STAND 'FIRST' OR 'AT THE HEAD'"
IN THE HEATING, GAS, AND HYDRAULIC WORLD.
Awarded TWENTY PRIZE MEDALS
At International Exhibitions at Home and Abroad.

KEITH'S PATENT BOILERS,
"CHALLENGE," "VIADUCT," "PYTHON," &c.,
FOR HOT-WATER HEATING,
require no building work round them, are
without rivals in efficiency and economy, and
heat respectively from 20 feet up to 20,000 feet
of 4-inch pipe, or its equivalent.
KEITH'S PYTHON BOILER, as illustrated
below, with front section removed, has 10,000
square feet of effective heating surface; heats
20,000 feet of 4-inch pipe, and is the most
powerful and complete sectional "special"
hot-water heating boiler in the world.

KEITH'S combined Hot-
Water and Steam Boiler, in
four removable pieces.

KEITH'S BOILERS
are in successful use by the thou-
sands in all parts of the world, and
they are almost exclusively used by
Her Majesty's Government at the
Home Office, for the heating work
of the prisons throughout the United
Kingdom, in preference to all others.

ESTABLISHED 1823.
HARTLEY & SUGDEN, LIMITED, HALIFAX.
MAKERS OF
WELDED & RIVETED BOILERS
FOR HEATING APPARATUS.

DOME TOP BOILER.
For Heating by the Circulation of Hot Water at Low Pressure.

THE MOST HEALTHY, ECONOMICAL, & EFFICIENT SYSTEM EXTANT.

Boilers made by this firm are at work in the Imperial Palaces of Great Britain, Germany, and Russia, and several thousands of Boilers for Heating Conservatories and all kinds of Public Buildings throughout the United Kingdom and the Continent, from their Works, are fixed annually.

Boilers supplied to Hot-Water Engineers, Plumbers, and Ironmongers only.

CATALOGUES ON APPLICATION.
3000 PATENT GOLD MEDAL EXCELSIOR BOILERS
IN USE IN ENGLAND AND ON THE CONTINENT.

NOT ONE FAILURE IN EFFICIENCY AND ECONOMY.

75 PER CENT. of the Board Schools, Churches, Public Buildings,
Greenhouses, &c., in Halifax, Bradford, and surrounding districts are heated by it.

CHEAPER THAN ANY OTHER PATENT BOILER.
SAVES 15 TO 20 PER CENT. IN FUEL, AND DOES NOT
REQUIRE HALF THE ATTENTION.

3 times stronger than Square-shaped Boilers.
CAN BE BANKED UP TO BURN LONGER WITHOUT ATTENTION THAN ANY OTHER BOILER.

MEDALS AWARDED WHEREVER EXHIBITED.

Prices, Catalogue, and all particulars free on application.

LUMBY, SON & WOOD, LTD.,
Patentees and Manufacturers of Welded and Riveted Boilers of every description,
FOR HOT WATER OR STEAM HEATING APPARATUS.
WEST GROVE BOILER and SAFE WORKS, HALIFAX.
PERKINS' PATENT HOT-WATER

PERKINS' PATENT SYSTEM

This System is safe, economical, effective, simple, durable, and not liable to get out of order, and can be worked without skilled labour.

This System has been applied in many thousands of cases in every description of Building, both public and private, during the last 50 years.

It can be applied to heating Public Buildings, Churches, Chapels, Schools, &c.; Workshops; Private Houses, large and small, &c., &c.

It can be applied to Disinfecting Closets, and Japanning and Drying Closets for manufacturing purposes, where heat up to 500 degrees Fahrenheit is required.

It can also be applied for melting substances in open pans or on hot plates.

For further Particulars apply to the
Original Inventors, Patenees and Manufacturers,

A. M. PERKINS & SON,
LIMITED,

43, REGENT SQUARE, GRAY'S INN ROAD, LONDON, W.C.
STEVEN BROS. & CO.
Ironfounders and Manufacturers of Hot-Water Apparatus,
ST. ANDREW'S WHARF, 4, UPPER THAMES ST.,
LONDON, E.C.

Manufacturers of
GREENHOUSE GEARING,
and all requisites for the Heating of
CONSERVATORIES,
HOT HOUSES,
&c., &c.

STEVEN BROS.' PATENT
BATHS,
Complete with Fittings & Soap Tray inside.

Also, Manufacturers of STOVES, RANGES, CHIMNEY-PIECES, TILE HEARTHST, CURBS,
STABLE FITTINGS, and ARCHITECTURAL and CONSTRUCTIONAL IRONWORK.

Show Rooms—4, UPPER THAMES STREET, LONDON, E.C.
HOT-WATER ENGINEERS,
ARCHITECTURAL, SANITARY, & GENERAL
IRONFOUNDERS.

TELEPHONE
No. 1789.

STEVEN BROS.
HAVE THE
LARGEST
AND MOST
VARIED STOCK
IN THE TRADE
OF—

BOILERS,
HOT-WATER PIPES,
CONNECTIONS,
FURNACE FITTINGS,
COILS, COIL CASES,
&c., &c.

No. 51. STAR INDEPENDENT
Stove Boiler.
Suitable for SMALL
GREENHOUSES,
OFFICES, SHOW-
ROOMS, and
GENERAL
AMATEUR
PURPOSES.

No. 18. GOLD MEDAL BOILER.

ESTABLISHED
OVER
50
YEARS.

CUSTOMERS
SENDING
ORDERS BY
POST, TELEGRAM,
TELEPHONE, ETC.,
CAN ALWAYS RELY ON
IMMEDIATE DISPATCH.

No. 47. CLIMAX BOILER.

Estimates given for Heating Churches, Public
Buildings, Conservatories, &c., &c., on application.

OUR NAME IS A SUFFICIENT GUARANTEE FOR THE
QUALITY OF OUR WORK.

4, UPPER THAMES ST., LONDON, E.C.
R. JENKINS & CO.,
ROtherham.

Wrought Iron and Steel
Welded Boilers
Of Superior Quality and Design.

For Heating by Water or Steam.

Registered Design.

Air Cock, for Hot-Water Pipes, Radiators, &c.

Section of Air Cock.

Wentworth Boiler.

Bath and Range Boilers.

Terminal End Return Flue Boiler.

"Dome Top."

Section "Duplex."

For Harness Rooms, with Open-Fire Front.

Independent Cylinder Boilers.

Illustrated Catalogue, with 265 Illustrations, forwarded on receipt of Trade Card.
GOLD MEDAL—MIDLAND COUNTIES EXHIBITION, 1891.
SILVER MEDAL—DERBYSHIRE AGRICULTURAL SOCIETY, 1891.

MATHER & KITCHEN,
Severn Boiler and Engineering Works,
DERBY.

TELEGRAMS, "WELDED, DERBY."
TELEPHONE No. 100.

NEW PATENT "SEVERN"
HOT-WATER BOILER,
FOR WORKING WITH OR WITHOUT BRICKWORK.

Occupies less space, and has more direct-heating surface than any other Vertical or Horizontal Boiler.

EVERY PATTERN OF BOILER MADE, AND A LARGE ASSORTMENT KEPT IN STOCK.

CATALOGUES AND ALL INFORMATION GRATIS.

GOODS THROUGH THE TRADE ONLY.
A PRACTICAL TREATISE
UPON
WARMING BUILDINGS
BY HOT WATER
AND UPON
HEAT AND HEATING APPLIANCES IN GENERAL

WITH AN ENQUIRY RESPECTING VENTILATION,
THE CAUSE AND ACTION OF DRAUGHTS IN
CHIMNEYS OR FLUES, AND THE LAWS
RELATING TO COMBUSTION

By CHAS. HOOD, F.R.S., F.R.A.S., &c.

REWITTEN BY
FREDERICK DYE
AUTHOR OF 'HOT WATER SUPPLY,' ETC. ETC.

THIRD NEW EDITION, FULLY REVISED TO DATE

London:
E. & F. N. SPON, LIMITED, 125 STRAND
New York:
SPON & CHAMBERLAIN, 12 CORTLANDT STREET
1897
HARTLEY & SUGDEN, LTD.
HALIFAX, ENGLAND.

WROUGHT IRON AND STEEL
WELDED AND RIVETED BOILERS,
OF EVERY DESCRIPTION, FOR
HOT-WATER AND STEAM HEATING APPARATUS.

CORNISH "TRENTHAM" BOILER.

ELEVATION.

CROSS SECTION.

NEW REGISTERED DESIGN
INDEPENDENT DOME TOP BOILER, with Waterway Bottom.
No. 3e.
BOILERS
BY STEAM OR HOT WATER.

AMATEUR'S BOILER.

INDEPENDENT SADDLE BOILERS.

“MONAD.” No. 2 Design.

DOOM-TOP BOILERS,
with Water-way Bottom.

No. 3 Design.

INDEPENDENT BOILERS, SUPERIOR QUALITY,
R. JENKINS & CO., ROTHERHAM.

“AIR COCKS,” with Fast or Loose Keys
for Radiators, &c.

Illustrations
are half size.

“VICTOR” BOILERS.

No. 1 Elevation.
No. 2 Elevation.
No. 3 Section.

ILLUSTRATED CATALOGUE, showing prices of these and other Boilers in Iron
and Steel, on receipt of Trade Card.

ROTHERHAM.

Telegraphic Address:
“Jenkins, Rotherham.”
HARTLEY & SUGDEN, LTD.
HALIFAX, ENGLAND.

WROUGHT-IRON AND STEEL
WELDED AND RIVETED BOILERS,
OF EVERY DESCRIPTION, FOR
HOT-WATER AND STEAM HEATING APPARATUS.

PATENT "CLIMAX" BOILER.

NEW REGISTERED
INDEPENDENT BASE BURNING BOILER, "THE LION."

CROSS SECTION.
SECTIONAL ELEVATION.
Wm. Graham & Sons,
Trig Lane, Castle Yard, & 35 Upper Thames St.
Telegraphic Address: LONDON, E.C.
HOT-WATER ENGINEERS AND FITTERS.

BOILERS, PIPES, TUBES, COILS,
COIL CASES WITH IRON AND MARBLE TOPS,
AND HOT-WATER FITTINGS.
Ventilating Gearing for Greenhouses.

Boiler, 3 ft. by 10 in., with 24 ft.
2 in. Hot-Water Pipe, 1 Syphon,
2 Spigots, 1 Air-Cock, Supply Cistern, Wrought-iron Tube for connecting same, and Rubber Rings for jointing, prepared ready for fixing, £4 1s.

Aston Tube Works,
Aston, near Birmingham.
Telegraphic Address: "Plume," Birmingham.

TUBES AND FITTINGS FOR GAS, STEAM, WATER AND HEATING PURPOSES.

Tubes Orders over £2 nett value DELIVERED FREE to any Railway Station in England.

EVERY TUBE TESTED before leaving the Works.
T. POTTERTON, Hot-Water Engineer,
C AVENDISH WORKS, BALHAM.

Telegraphic Address: "POTTERTON, LONDON."

POTTERTON’S PATENT ZIG-ZAG BOILERS are the most powerful Range Boilers ever invented. They are suitable for supplying very large quantities of Hot Water or Warming Houses in connection with domestic supply. Write for Catalogue.

T. Potterton's Treatise, "A Practical Guide to Warming Houses from Kitchen Fire by Low-pressure Hot Water, on the One Pipe System, in conjunction with Domestic Supply," 48 Illustrations of Plants, Apparatus, &c. Price 1s. 6d.; post free 1s. 9d.