Specification of Luke Roberts, Ephraim Armitage and Jonas Haley : apparatus for consuming smoke.

Contributors

Roberts, Luke.
Armitage, Ephraim.
Haley, Jonas.

Publication/Creation

London : Great Seal Patent Office, 1872 (London : George E. Eyre and William Spottiswoode)

Persistent URL

https://wellcomecollection.org/works/s33qcwwv

License and attribution

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

A.D. 1871, 31st OCTOBER. N° 2917.

SPECIFICATION

OF

LUKE ROBERTS, EPHRAIM ARMITAGE, AND JONAS HALEY.

APPARATUS FOR CONSUMING SMOKE.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:
PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
25, SOUTHAMPTON BUILDINGS, HOLBORN.
Price 4d.
1872.

A.D. 1871, 31*st* OCTOBER. N° 2917.

Apparatus for Consuming Smoke.

(*This Invention received Provisional Protection only.*)

PROVISIONAL SPECIFICATION left by Luke Roberts, Ephraim Armitage, and Jonas Haley at the Office of the Commissioners of Patents, with their Petition, on the 31st October 1871.

We, LUKE ROBERTS, Engineer, EPHRAIM ARMITAGE, Engineer, and JONAS HALEY, Card Manufacturer, all of Cleckheaton, in the County of York, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN APPARATUS FOR CONSUMING SMOKE," to be as follows, that is to say:—

This Invention consists in the employment of a fan or blast engine connected to pipes, the first pipe end being fixed in the ash-pit of the boiler, and the other pipe end being fixed in the chimney flue; this latter pipe end is so constructed that it forms the back hot air and smoke chamber of the boiler. Communication from this chamber to the chimney is effected by means of a damper to allow of a draught with the chimney when required. The fan or blast engine is placed on the side of the boiler and near the centre; the exhaust pipe branching off to the chimney flue and the delivery pipe to the ash-pit. The fan or blast engine forces hot air and smoke from the boiler flues back again through the ash-pit and through the fire-bar spaces and coals, thus causing the

hot air to maintain the combustion of the fire through the great rapidity of the current of hot air at a high temperature (about 930 degrees Fahrenheit), and producing a rapid current of air and a clear flame with a great saving of fuel. Doors are applied to the front of the ash-pit to prevent the escape of the hot air supplied by the fan; these doors are opened when the fire is lighted and before the current of hot air is established. A damper is placed between the pipe and the chimney flue; this damper is opened when the fire is lighted forming a current of air with the chimney and allowing the escape of the gases and smoke; this damper is closed when the fan is set in operation, the chimney then not being required.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1872.