Specification of John William Sloughgrove : furnaces and ovens.

Contributors

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Publication/Creation

London : Great Seal Patent Office, 1855 (London : George E. Eyre and William Spottiswoode)

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A.D. 1854 . . . . . Nº 1935.

SPECIFICATION

OF

JOHN WILLIAM SLOUGHGROVE
AND
JAMES HENRY WHEATLEY.

FURNACES AND OVENS.

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.
1855.

Price 3d.

A.D. 1854 . . . . . N° 1935.

Furnaces and Ovens.

(*This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.*)

PROVISIONAL SPECIFICATION left by John William Sloughgrove and James Henry Wheatley at the Office of the Commissioners of Patents, with their Petition, on the 4th September 1854.

We, JOHN WILLIAM SLOUGHGROVE and JAMES HENRY WHEATLEY, of Windsor St., Islington, Engineers, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN FURNACES AND OVENS TO PROMOTE THE CONSUMPTION OF SMOKE," to be as follows:—

The furnace is fitted with two sets of fire bars placed behind each other; between them is a space in which a moveable screen or bridge is worked. The screen is made of two perforated metal plates, the sides and top of the bridge being closed, and the bottom left open to admit a current of air between the plates. The shape of the screen or bridge will be made in accordance with the form of the furnace and boiler, and it is to be raised or lowered by means of a lever, a rack and pinion, a quadrant, or other similar mechanical arrangement. Another screen or bridge similar to the foregoing is fitted at the end of the second set of fire bars next the chimney shaft or flue; this screen may be worked by similar means to the other, or one screen may be actuated by a tube attached to the lever or rack, and the other by a rod fitted within the tube. These screens when raised form a double bridge, the fire burning in front of each. The fire nearest the flue is supplied with fuel by lowering

the front screen and pushing back a portion of the incandescent fuel from the outer fire; the screen is then raised. When coal is thrown upon the outer fire, the smoke and gaseous products arising from its combustion pass through the screen and over the second fire, by which they are ignited and consumed. The object of the second screen is to prevent the gaseous matters passing over the incandescent fuel of the second fire too quickly, and escaping into the chimney unconsumed. By the foregoing arrangement the visible and combustible gases are entirely consumed, the heated air and invisible vapour alone passing off by the chimney. In some cases the second bridge or screen will not be required, but we reserve the right to vary the details of this Invention.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1855.