

Specification of Frederick Smith : furnaces.

Contributors

Smith, Frederick.

Publication/Creation

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A.D. 1854 N° 1070.

S P E C I F I C A T I O N

OF

FREDERICK SMITH.

—
FURNACES.
—

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY :

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Price 3d.

1854.

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ASTOR LENOX TILDEN FOUNDATION

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A.D. 1854 N° 1070.

Furnaces.

(This Invention did not proceed to the Great Seal.)

PROVISIONAL SPECIFICATION left by Frederick Smith at the Office of the Commissioners of Patents, with his Petition, on the 12th May 1854.

I, **FREDERICK SMITH**, of York Street, Lambeth, in the County of Surrey,
5 Oven Builder, do hereby declare the nature of the said Invention for "**AN IMPROVED ARRANGEMENT OF FURNACE FOR CONSUMING SMOKE**" to be as follows:—

The object of this Invention is to prevent the waste of fuel consequent on the generation of smoke in furnaces, and its escape therefrom into the atmosphere. For this purpose I cast the fire bars hollow, and leave their forward ends
10 open to the atmosphere, while I connect their inner ends with a cast-iron box or hot air chamber, which is so placed as to form the bridge of the furnace. The air supplied to this chamber I carry upwards by means of pipes or flues, and inject it into the furnace through the crown thereof. This opening I make behind a metal plate or fire tile stretching across the crown of the furnace,
15 and projecting a short distance downwards, and I arrange it so that the air shall be deflected on to the flames and gases, just as they pass under the metal plate or fire tile. This stream of hot air will drive down on to the bright fire whatever smoke may have passed the plate, and thereby effect the combustion of the smoke. To insure a bright fire near the bridge, I increase the windage
20 or space between the bars at that part, and thereby provide for a more ample supply of air at the back part than at the front part of the furnace.

LONDON :

Printed by **GEORGE EDWARD EYRE** and **WILLIAM SPOTTISWOODE**,
Printers to the Queen's most Excellent Majesty. 1854.

