

Specification of Richard Guest Rainforth : consuming smoke.

Contributors

Rainforth, Richard Guest.

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A.D. 1870, 29th MARCH. N° 910.

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

OF

RICHARD GUEST RAINFORTH.

—

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.





A.D. 1870, 29th MARCH. N° 910.

Consuming Smoke.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Richard Guest Rainforth at the Office of the Commissioners of Patents, with his Petition, on the 29th March 1870.

I, RICHARD GUEST RAINFORTH, of the Town of Kingston-upon-Hull, 5 in the County of the same Town, Steam Tug Owner, do hereby declare the nature of the said Invention for "**IMPROVEMENTS IN THE MEANS OF AND APPARATUS FOR CONSUMING SMOKE,**" to be as follows:—

This Invention relates to certain improvements in the means of consuming smoke and in the apparatus for such purpose, the object of 10 the Invention being to economise fuel in steam boiler furnaces by causing the products of combustion to be consumed, thus affording increased heating power from a given quantity of fuel and preventing the escape of smoke from the fire.

In order to effect these objects I propose to apply to the fire door 15 an air spout or straight flat tube which is inserted in an aperture made in the door of the fire-box, and placed in a slanting position so that its internal portion shall point upwards and above the level of the fuel; the tube or spout may be made nearly equal to the width of the fire door so that the air ascending from the outside of the furnace passes in a

Rainforth's Improvements in Apparatus for Consuming Smoke.

current of such width directly into the fire-place and instantly becoming heated mingles with the smoke and other gaseous products and enables the fire to consume them. This appliance increases the draught of air at all conditions of the fuel and maintains a very powerful heat; regulating slides or flaps on hinges may be arranged on the tube to 5 decrease the supply of air when the fuel is reduced to an incandescent state. In cases where the level of the burning fuel is considerably beneath the stoke hole the air spout may be inserted below the fire door, but just above the level of the fire, as in the former example.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1870.







