

Specification of Edwin Bray, John Crosby Hargreaves, and Francis Henry Stubbs : apparatus for consuming smoke.

Contributors

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A.D. 1870, *5th MARCH.* N° 657.

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

OF

EDWIN BRAY,
JOHN CROSBY HARGREAVES,
AND FRANCIS HENRY STUBBS.

APPARATUS FOR CONSUMING SMOKE.

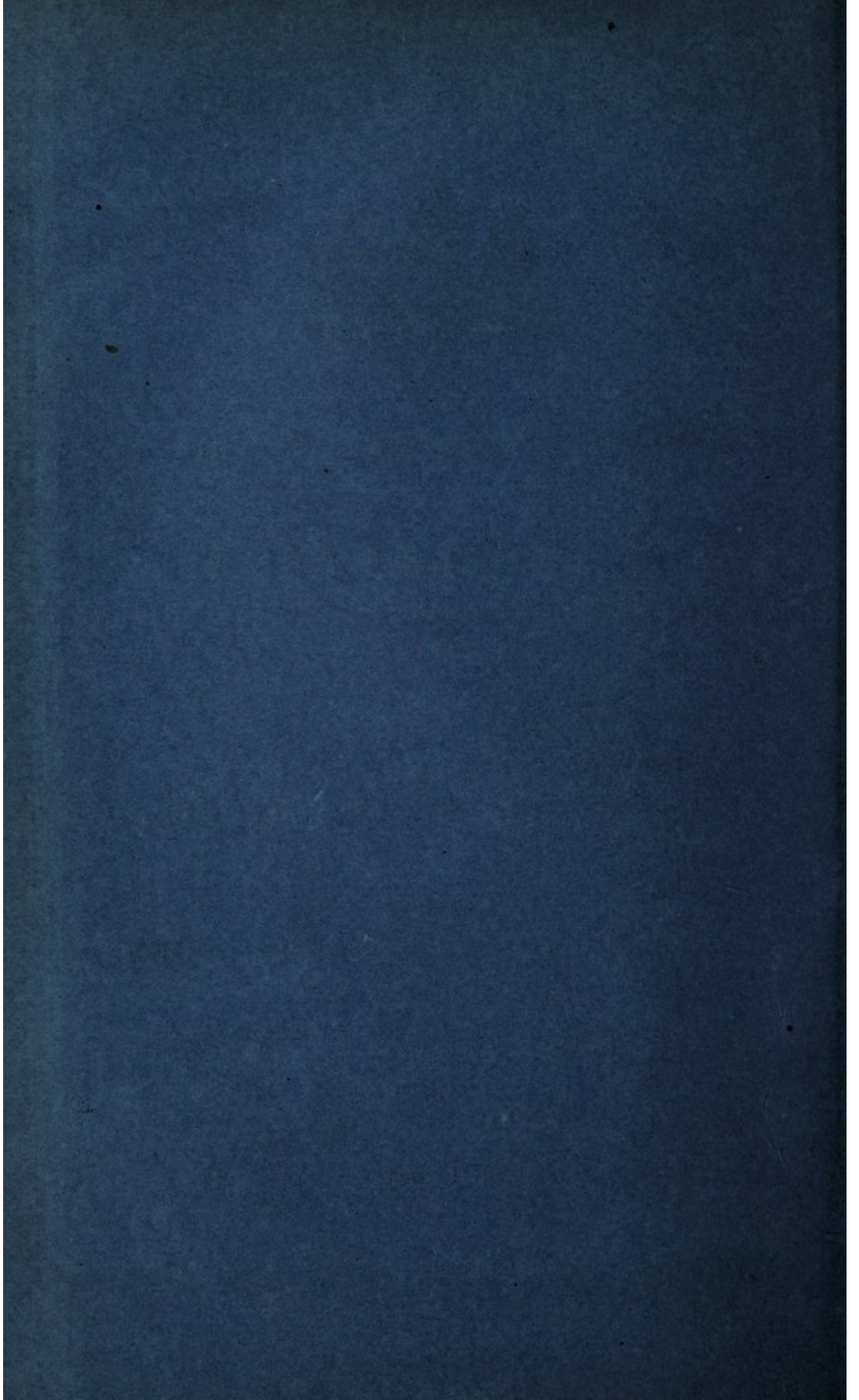
LONDON:

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PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY :

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A.D. 1870, 5th MARCH. N° 657.

Apparatus for Consuming Smoke.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Edwin Bray, John Crosby Hargreaves, and Francis Henry Stubbs at the Office of the Commissioners of Patents, with their Petition, on the 5th March 1870.

We, EDWIN BRAY, of Fulneck, JOHN CROSBY HARGREAVES, of Hunslet, and FRANCIS HENRY STUBBS, of Hunslet, near Leeds, in the County of York, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN APPARATUS FOR BURNING AND CONSUMING SMOKE," to be as follows:—

Our Invention consists of certain improved arrangements whereby the combustible gases and smoke are consumed, this object being attained by the admission of steam and atmospheric air combined. A pipe of suitable dimensions and material is either passed through the dead plate or brought round it so that one end will be immediately within the doorway of the fire-door. The other end of the pipe passes to the outside, and is provided with a fan plate or ventilator of ordinary construction.

A steam pipe from the boiler is conducted into the aforesaid pipe. We extend the hinge pin on the door to a required length, on which a

Bray, Hargreaves, & Stubbs' Improvements in Consuming Smoke.

lever is fixed, and so connected with levers attached to the ventilator on the air pipe and stop cock on the steam pipe that when the door is opened the ventilator is opened for the admission of air and simultaneously the stop cock for the admission of steam.

The opening of the door sets in motion by means of another lever a pendulum to which is attached an escapement motion or other mechanism answering the same purpose.

The escapement motion actuated by the movement of the pendulum gradually closes the ventilator, and by the same motion and simultaneously the steam is shut off.

The time of admitting the atmospheric air and steam after firing depends on the quality or nature of the fuel used, and may be regulated by an adjustment of the length of the pendulum.

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