

Specification of James Gilbertson : constructing furnaces to consume their own smoke.

Contributors

Gilbertson, James.

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A.D. 1828 N° 5601.

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

OF

JAMES GILBERTSON.

CONSTRUCTING FURNACES TO CONSUME
THEIR OWN SMOKE.

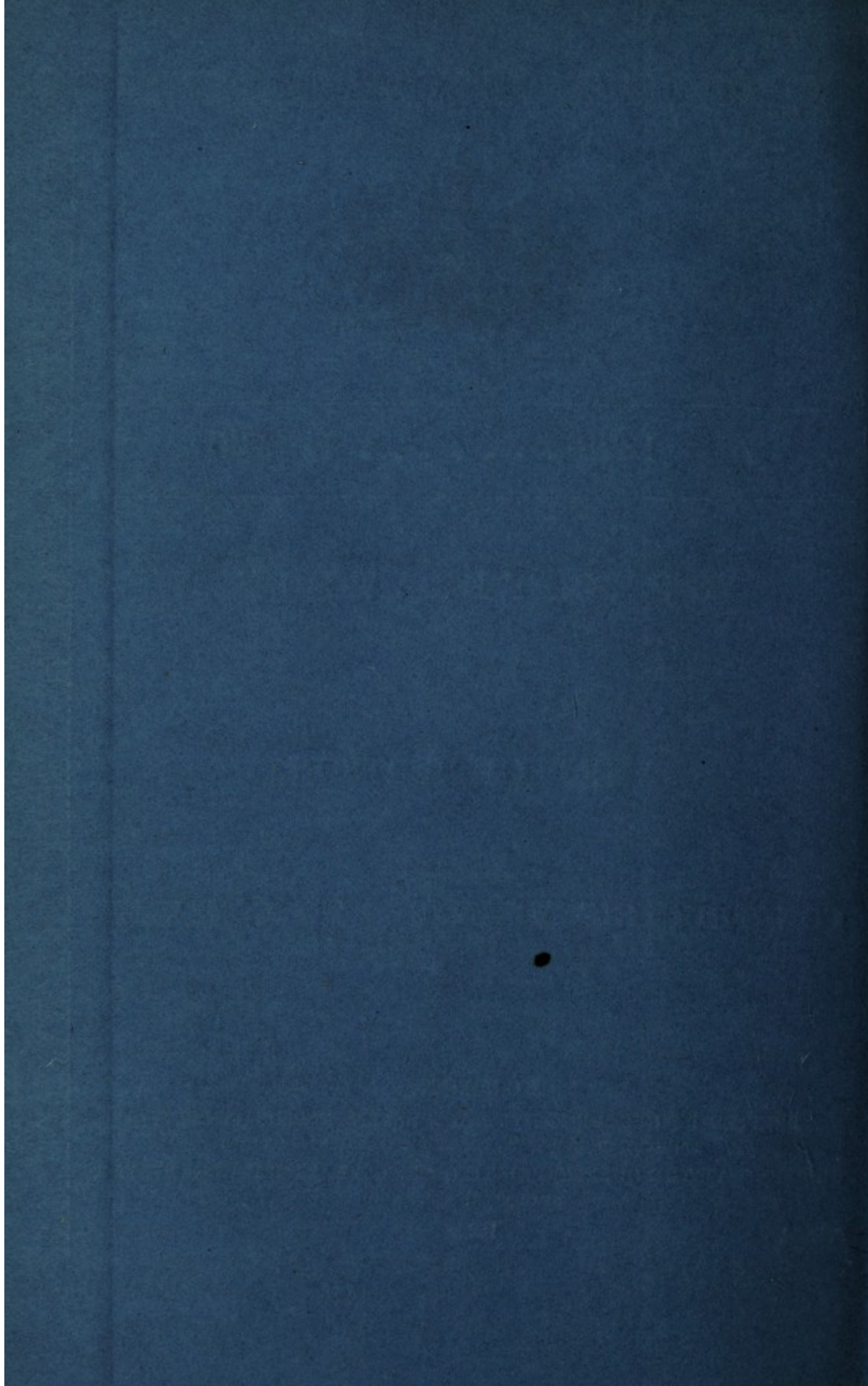
L O N D O N :

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PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY :

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NEAR FLEET STREET.

Price 5d.

1854.





A.D. 1828 N^o 5601.

Constructing Furnaces to Consume their own Smoke.

GILBERTSON'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JAMES GILBERTSON, of Hertford, in the County of Hertford, Grocer, do send greeting.

WHEREAS His present most Excellent Majesty George the Fourth by His Letters Patent under the Great Seal of the United Kingdom of Great Britain and Ireland, bearing date at Westminster, the Fifteenth day of January now last past, did give and grant unto me, the said James Gilbertson, my executors, administrators, and assigns, His special licence, full power, sole privilege and authority, that I, the said James Gilbertson, my executors, administrators, and assigns, should and lawfully might make, use, exercise, and vend, during the
10 term of years therein expressed, within that part of the said United Kingdom of Great Britain and Ireland called England, His Dominion of Wales, and Town of Berwick upon Tweed, my Invention of "**AN IMPROVEMENT OR IMPROVEMENTS IN THE CONSTRUCTION OF FURNACES, BY WHICH THEY CONSUME THEIR OWN SMOKE;**" in which said Letters Patent there is contained a proviso obliging me,
15 the said James Gilbertson, by an instrument in writing under my hand and seal, particularly to describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, and to cause the same to be enrolled in His Majesty's High Court of Chancery within two calendar months next and immediately after the date of the said recited Letters Patent, as in and
20 by the same, reference being thereunto had, may more fully and at large appear

Gilbertson's Improvements in the Construction of Furnaces, &c.

NOW KNOW YE, that in compliance with the said proviso, I, the said James Gilbertson, do hereby declare that my said Invention of an Improvement or Improvements in the Construction of Furnaces by which they Consume their own Smoke is fully described and ascertained in manner and form following, that is to say:—

My said Invention consists in the construction of furnaces with the sides of them made of hollow plates of iron, in order that a current of air may pass through them, and in its course become heated and then be discharged into a cavity or ash pit formed at the back of the fire, whence, proceeding through a grating affixed at the top of this cavity, it comes in contact with the smoke and flame of the fire, and causes an almost complete combustion of the whole of the fuel employed. In large furnaces, where a great quantity of air is necessary, I make a portion or the whole of the bars hollow, but I do not claim any Invention in this application of hollow bars, only as in aid of the effect to be produced by the hollow plates at the sides. The accompanying Drawings in the margin of these Presents, and the following description thereof, will more particularly ascertain and determine the precise nature of my Invention; that is to say, Fig. 1 is a section of a furnace constructed according to my improvement or improvements, from A to B in the Plan, Fig. 2; and Figure 3 is another section, from C to D; the same letters refer to the same parts in each Figure. A, the boiler; B, furnace; C, the hollow side plates; D, the furnace bars; E, the bearing bars; F, the air cavity or ash pit at the back of the furnace, having a door I for the purpose of clearing out the dust and ashes that will accumulate; G, the air grating at the top of the air cavity, to prevent the fuel from falling into the air cavity, and to diffuse the heated air freely among the smoke of the fire; H, an iron plate, or other suitable material, projecting a few inches over the grating to direct the heated air from the cavity on to the fire of the furnace. Now I do not mean to confine myself to the precise form and construction of furnace exhibited in the Drawings in the margin of these Presents, as it is evident various modification may be requisite to adapt my Invention to different kinds and forms of furnaces.

In witness whereof, I, the said James Gilbertson, have hereunto set my hand and seal, this Thirteenth day of March, One thousand eight hundred and twenty-eight.

JAMES (L.S.) GILBERTSON. 35

FIG. 1.

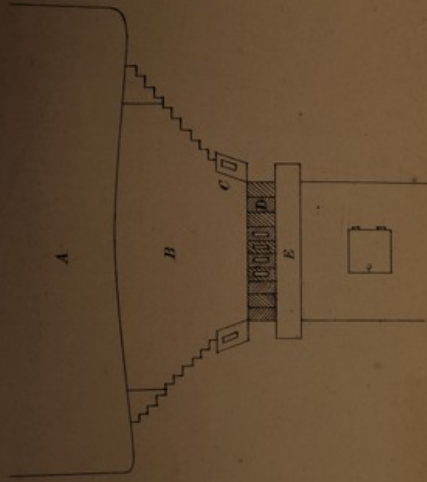


FIG. 2.

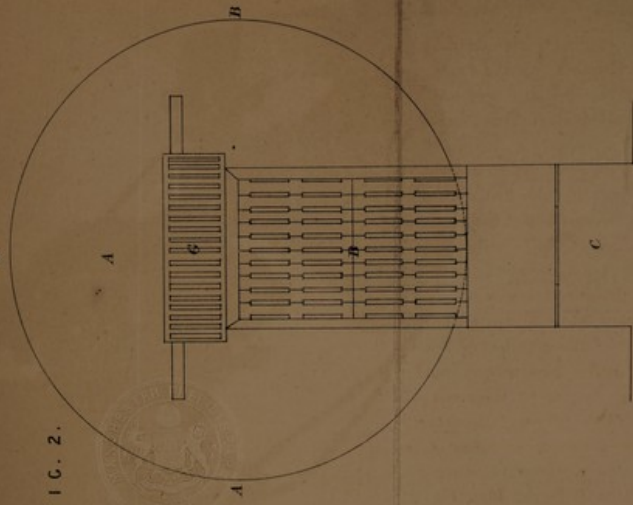
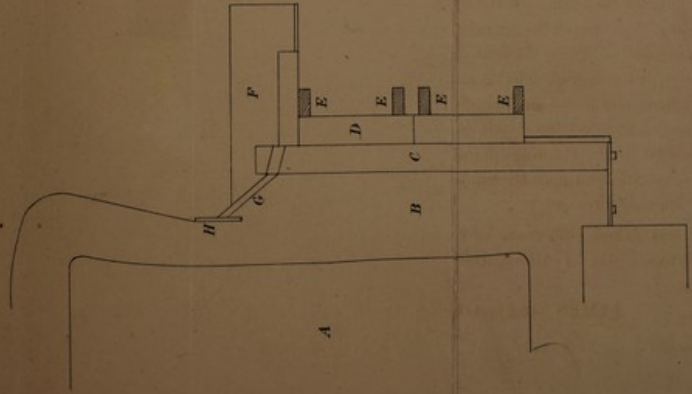


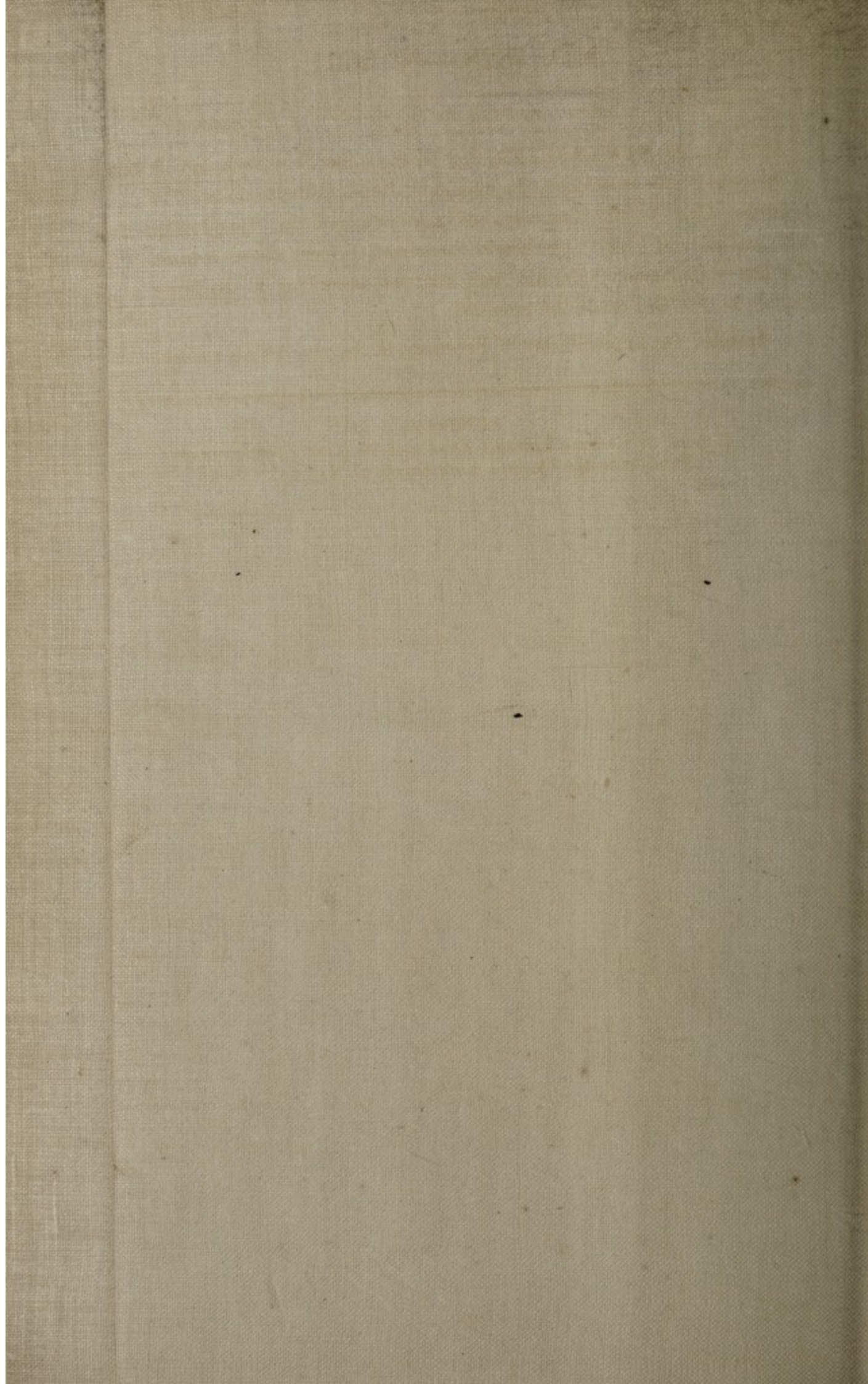
FIG. 3.



The enrolled drawing is partly colored.

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Milly & Sons, Lith.



Gilbertson's Improvements in the Construction of Furnaces, &c.

AND BE IT REMEMBERED, that on the same Thirteenth day of March, in the year above mentioned, the aforesaid James Gilbertson came before our Lord the King, in His Chancery, and acknowledged the Specification aforesaid, and all and everything therein contained, in form above written. And
5 also the Specification aforesaid was stamped according to the tenor of the Statute in that case made and provided.

Inrolled the Fifteenth day of February, in the year above written.

LONDON :

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

PHILIP LONGMORE, a Master
Extra. in Chancery.

