

## **Specification of William Benson : furnaces.**

### **Contributors**

Benson, William.

### **Publication/Creation**

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A.D. 1861, 18th APRIL. N° 960.

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

OF

WILLIAM BENSON.

—  
FURNACES.  
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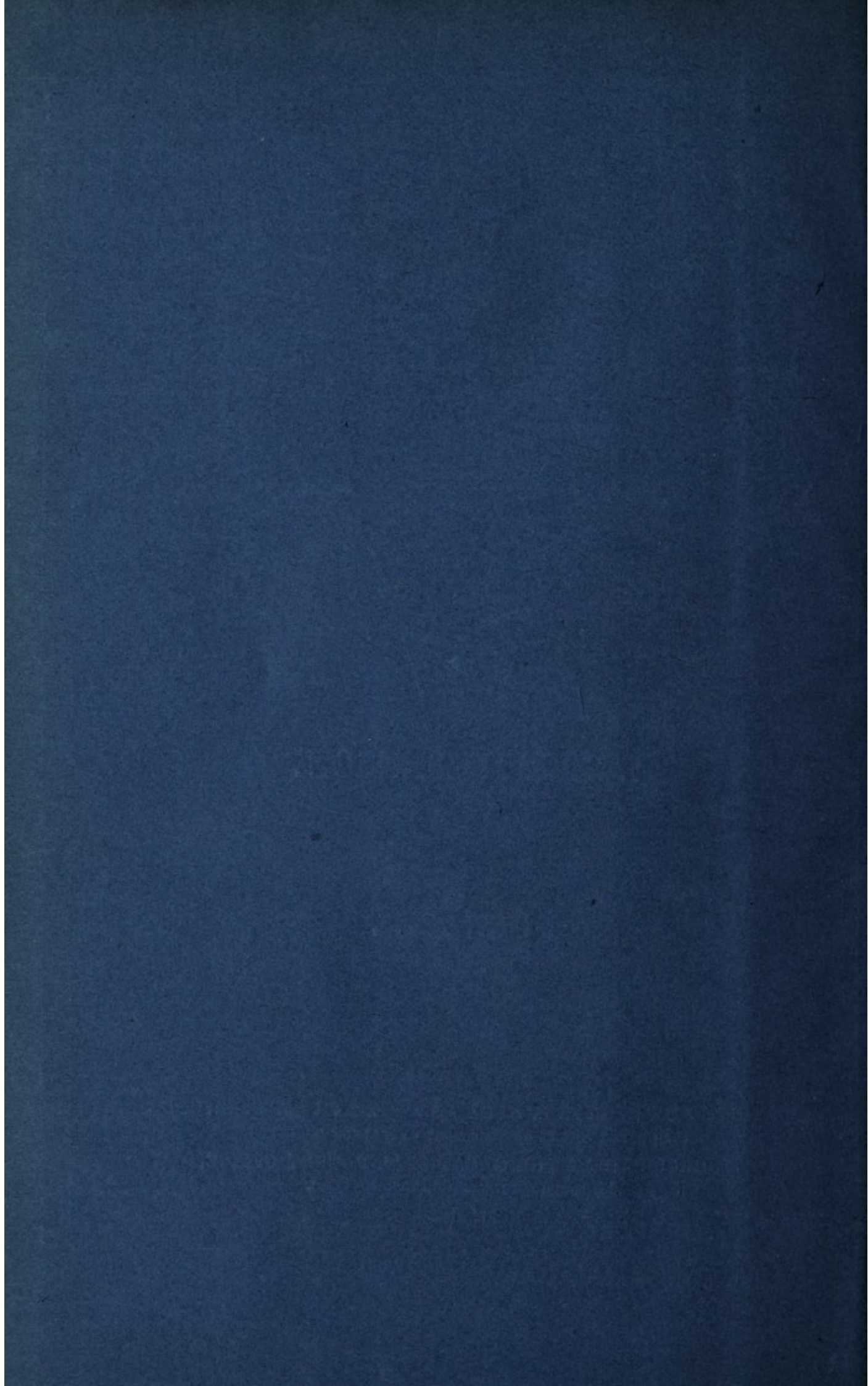
LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,  
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1861.





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A.D. 1861, 18th APRIL. N<sup>o</sup> 960.

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### Furnaces.

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*(This Invention received Provisional Protection only.)*

**PROVISIONAL SPECIFICATION** left by William Benson at the Office of the Commissioners of Patents, with his Petition, on the 18th April 1861.

I, WILLIAM BENSON, of Allerwash House, Hexham, in the County of 5 Northumberland, Colliery Owner, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE CONSTRUCTION OF FURNACES FOR THE BETTER COMBUSTION OF FUEL AND THE PREVENTION OF SMOKE," to be as follows:—

This Invention relates to an improved mode of supplying air to the burning fuel in furnaces, and consists in forming a number of horizontal air vents along 10 the two side walls of the fire chamber, and along the back or bridge thereof, such vents being slightly contracted at the end next the fire, and expanded at the opposite end, which opens into an air flue extending behind such series or set of vents, and communicating with the outside of the setting or brickwork. Dampers are supplied to these air flues to regulate the supply. When a 15 double furnace is used the grate may be divided longitudinally by a hollow and perforated bridge, through which air passes freely into the fuel on either side thereof.

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Printers to the Queen's most Excellent Majesty. 1861.



A.D. 1861, 1st March, No. 960.

PATENT

(This Invention relates to Provisional Protection only.)

PROVISIONAL SPECIFICATION left by William Benson at the Office of the Commissioners of Patents with his Petition on the 18th April 1861.

I, WILLIAM BENSON, of Alverwash House, Hexham, in the County of Northumberland, Colliery Owner, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE CONSTRUCTION OF FURNACES FOR THE CONVERSION OF FUEL AND THE PREPARATION OF GASES," to be as follows:—

This Invention relates to an improved mode of supplying air to the burning fuel in furnaces, and consists in forming a number of horizontal air vents along the two side walls of the fire channels, and along the back or bridge thereof, such vents being slightly notched at the end next the fire, and expanded at the opposite end, which opens into an air flue extending behind each series of vents, and communicating with the outside of the setting or brickwork. Gases are supplied to these air flues to regulate the supply. When a double furnace is used the grate may be divided longitudinally by a hollow and perforated ledge, through which air passes freely into the fuel on either side thereof.

LONDON:

Printed by GEORGE EDWARD FRANK and WILLIAM BRISTOL, Stationers to the Queen's most Excellent Majesty. 1861.