

## **Specification of John Slate : stoves, furnaces, chimney pots, and regulators.**

### **Contributors**

Slate, John.

### **Publication/Creation**

London : Queen's Printing Office, 1854 (London : George E. Eyre and William Spottiswoode)

### **Persistent URL**

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A.D. 1850 . . . . . N° 13,312.

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

OF

JOHN SLATE.

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STOVES, FURNACES, CHIMNEY POTS,  
AND REGULATORS.

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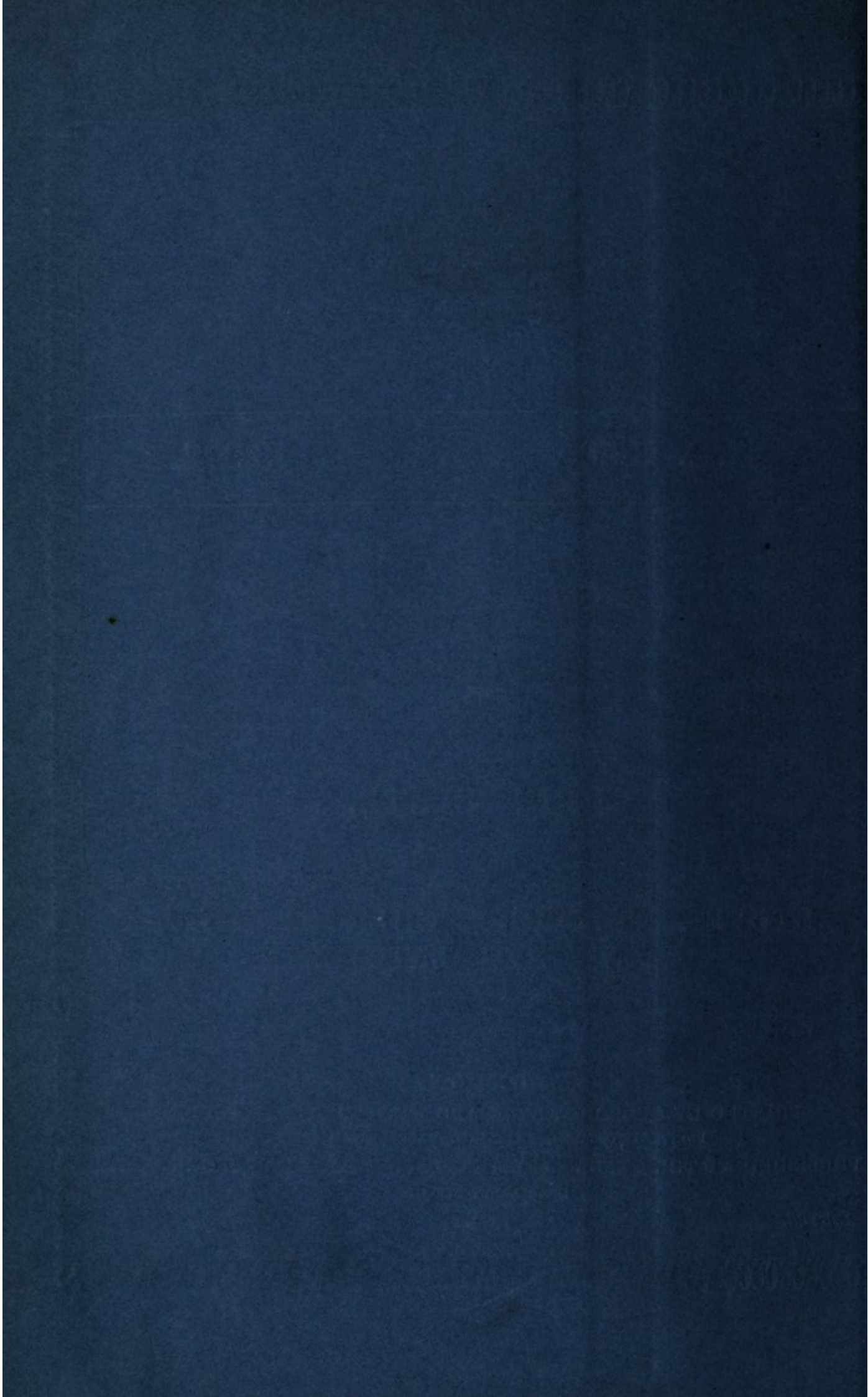
LONDON:

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

PUBLISHED AT THE QUEEN'S PRINTING OFFICE, EAST HARDING STREET,  
NEAR FLEET STREET.

Price 6d.

1854.







A.D. 1850 . . . . . N° 13,312.

**Stoves, Furnaces, Chimney Pots, and Regulators.**

**SLATE'S SPECIFICATION.**

**TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOHN SLATE,**  
of Wandsworth, in the County of Surrey, Accountant, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Royal  
5 Letters Patent under the Great Seal of the United Kingdom of Great Britain  
and Ireland, bearing date at Westminster, the Second day of November (One  
thousand eight hundred and fifty), in the fourteenth year of Her reign, did, for  
Herself, Her heirs and successors, give and grant unto me, the said John  
Slate, my exors, admors, and assigns, Her special license, full power, sole  
10 privilege and authority, that I, the said John Slate, my exors, admors, or  
assigns, or such others as I, the said John Slate, my exors, admors, or assigns,  
should at any time agree with and no others, from time to time and at all  
times during the term of years therein expressed, should and lawfully might  
make, use, exercise, and vend, within England, Wales, and the Town of  
15 Berwick upon Tweed, my Invention of "**IMPROVEMENTS IN STOVES AND FURNACES,**  
**AND IN CHIMNEY POTS AND REGULATORS;**" in which said Letters Patent is con-  
tained a proviso, that I, the said John Slate, shall cause a particular descrip-  
tion of the nature of my said Invention, and in what manner the same is to be  
performed, by an instrument in writing under my hand and seal, to be enrolled  
20 in Her Majesty's High Court of Chancery within six calendar months next and  
immediately after the date of the said in part recited Letters Patent, as in  
and by the same, reference being thereunto had, will more fully and at  
large appear.



*Slate's Impts. in Stoves and Furnaces, and in Chimney Pots and Regulators.*

**NOW KNOW YE**, that in compliance with the said proviso, I, the said John Slate, hereby declare that the nature of my said Invention, and the manner in which the same is to be performed, are fully described and ascertained in and by the following Specification thereof, reference being had to the Drawings hereunto annexed (that is to say):—

5

Firstly, my Invention, in so far, as it relates to stoves, furnaces, and regulators, has for its object the cure or prevention of smoke, and the creation of a better draught in the chimneys of what are called "register" stoves and grates, and of other stoves, grates, and ranges.

Figure 1 is a front view of a stove constructed according to my improve- 10  
ments (with a portion of the front plate removed to shew the new parts); Figure 2 is a plan of the top; and Figure 3, a front view of the top, with the register plate removed. A is the fire box; B, B, the sides of the stove, which are formed of two plates or slabs hinged together at their inner edges, one of which (B<sup>1</sup>) is fixed, and the other (B) moveable towards the front of the stove 15  
or grate. As the moveable plates or slabs are drawn forwards from the sides they increase the draught at the front, and cause an additional current of air immediately under the flue on either side; C is the register plate, which is inclined upwards from the front to the back of the stove, and partially encloses or covers the top. This plate may be hinged or not, in which latter case it 20  
would be retained in position by a catch as at *a*, to admit of its being readily removed when the chimney was required to be swept. D, D, are two triangular flaps hinged to the moveable plates or sides of the stove B, B, and supported when in their open position by hanging brackets attached to their under sides. These triangular flaps extend as far as the ends of the plate C 25  
when in their open position, and move under that plate when the wings B, B, are brought forward; E, E, are two other angular flaps hung loosely to the front of the stove by a bolt and nut at *b*, and resting against the tops of the moveable sides of the stove so as to cover completely the top of the stove, and prevent any downward current; F is a vane or smoke director placed in 30  
the throat of the chimney, and centered on a pivot at the back so as to be capable of being turned either way, and thereby direct the current of smoke or air up a right or left hand flue as may be required.

Figure 4 is a front view of a stove fitted with my improvements, in which the stove is made of open work, behind which the moveable sides traverse. 35  
The front of the stove will in this case present the same appearance when the moveable slabs are closed or extended. Instead of this arrangement I sometimes attach to the front edge of the shifting sides B, B, screens of ornamental open work, which are drawn forward with the sides when they are opened.



FIG. 5.

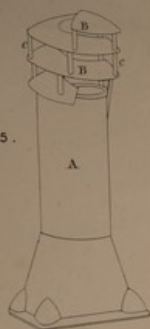


FIG. 6.

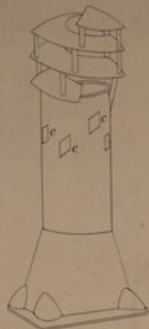


FIG. 9.



FIG. 8.

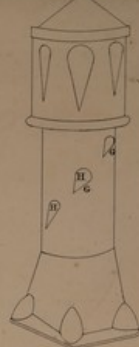


FIG. 7.



FIG. 2.

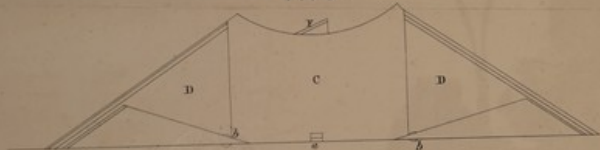


FIG. 1.

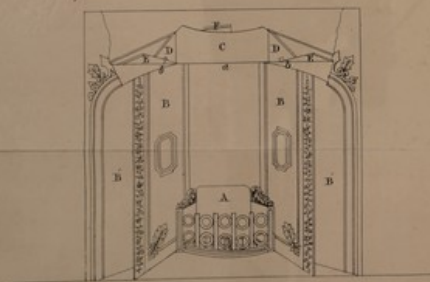


FIG. 3.

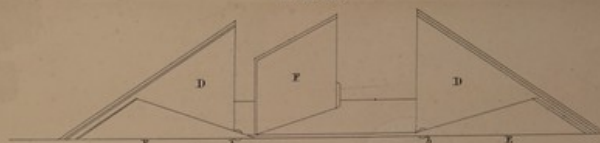
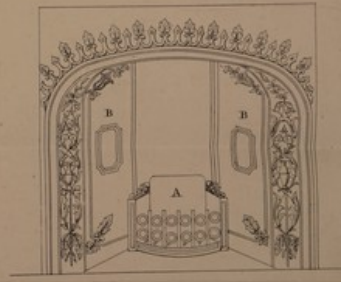


FIG. 4.



The enrolled drawing is not colored.

Mallet & Co. Lith.





*Slate's Impts. in Stoves and Furnaces, and in Chimney Pots and Regulators.*

and retire from view when the sides are closed. I prefer to make the fire boxes of my improved stoves with the bars in a vertical instead of a horizontal position, but inclined inward slightly from the bottom to the top. I also make these vertical bars in the form of a semi-cylindrical trough, and place them  
5 with their concave sides inwards, so as to give the smoke, &c. an upward direction.

My improvements may be also applied to the kitchen ranges, in which case the sides B, B, would be moveable only from the slab or upper surface of the range to the throat of the chimney.

10 Secondly, my Invention consists of certain chimney pots of an improved construction, which may be applied to chimneys of stoves of the ordinary description, or may be used in conjunction with my improved stoves or grates before described. Figure 5 is an external elevation of one of my improved chimney pots. A is the stalk of the pot (which is shewn as of a cylindrical  
15 form, but may be of any other convenient shape). B is the cowl, which I prefer to make of a screw or spiral form, the threads of the screw or spiral being set at an angle and kept apart by stays c, c. The effect of this peculiar form of cowl is to prevent the smoke from beating down, or a current of air from passing downwards into the chimney.

20 Figure 6 is an elevation of another of my improved chimney pots, which differs only from that last described in having a series of apertures in the chimney pot, as shewn at C, C. Figure 7 is an elevation of a third form of a chimney pot, which I employ in conjunction with my improved stoves and grates. A is the body of the pot; B, the cowl, which I make of the form of  
25 the frustum of a cone. The apex of the frustum is surmounted by a cylindrical stem C of less diameter than the body of the chimney pot, and on the top of this cylindrical portion I place a hood D of the form of an inverted semicircular trough. I also provide two, three, or more similar cylindrical stems E, E, with hoods, which I attach to the conical cowl, in which suitable  
30 apertures are provided to admit of the stems and hoods being secured thereto. Figure 8 is an external elevation; and Figure 9, a vertical section of a chimney pot, which is an improvement upon the one registered by me on the Sixth of October, One thousand eight hundred & forty-seven, which I also employ in conjunction with my improved stoves and grates. The improvement consists  
35 in having two spiral ledges F, F, attached to the interior of the pot, with apertures G, G, and leaves H, H, by which the air entering at the apertures will be directed upwards, and pass off with the ascending current of smoke & air at the top of the chimney. In all cases in which chimney pots of any of the forms herein-before described are applied to chimneys, it is necessary that



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the interior of the chimney at the top should coincide exactly with the internal size of the chimney pot, as it will be found that so good an effect will not otherwise be produced, the difference in size presenting a projecting against which the smoke will impinge in its upward passage, and be prevented from issuing freely from the top of the chimney pot. 5

Having now described the nature of my said Invention, and in what manner the same is to be performed, I declare that what I claim as of my Invention is,—

First, the construction of register stoves or grates and ranges, with double cheeks, one fixed and the other moveable, with the register plate inclined upwards from the front to the back of the chimney, and with a shifting smoke director placed in the throat of the chimney, as represented by Figures 1, 2, 3, and 4, and before described. 10

And, second, the several constructions of chimney pots represented in Figures 5, 6, 7, 8, and 9, as before described. 15

In witness whereof, I, the said John Slate, have hereunto set my hand and seal, this Second day of May, in the year of our Lord One thousand eight hundred and fifty-one.

JOHN (L.S.) SLATE.

JEFFERSON.

**AND BE IT REMEMBERED**, that on the Second day of May, in the year of our Lord 1851, the aforesaid John Slate came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and everything therein contained and specified, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose. 20 25

Enrolled the Second day of May, in the year of our Lord One thousand eight hundred and fifty-one.

LONDON :

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