

Specification of Thomas Willcox : pneumatic stove.

Contributors

Wilcox, Thomas.

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A.D. 1819 N° 4362.

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

OF

THOMAS WILLCOX.

PNEUMATIC STOVE.

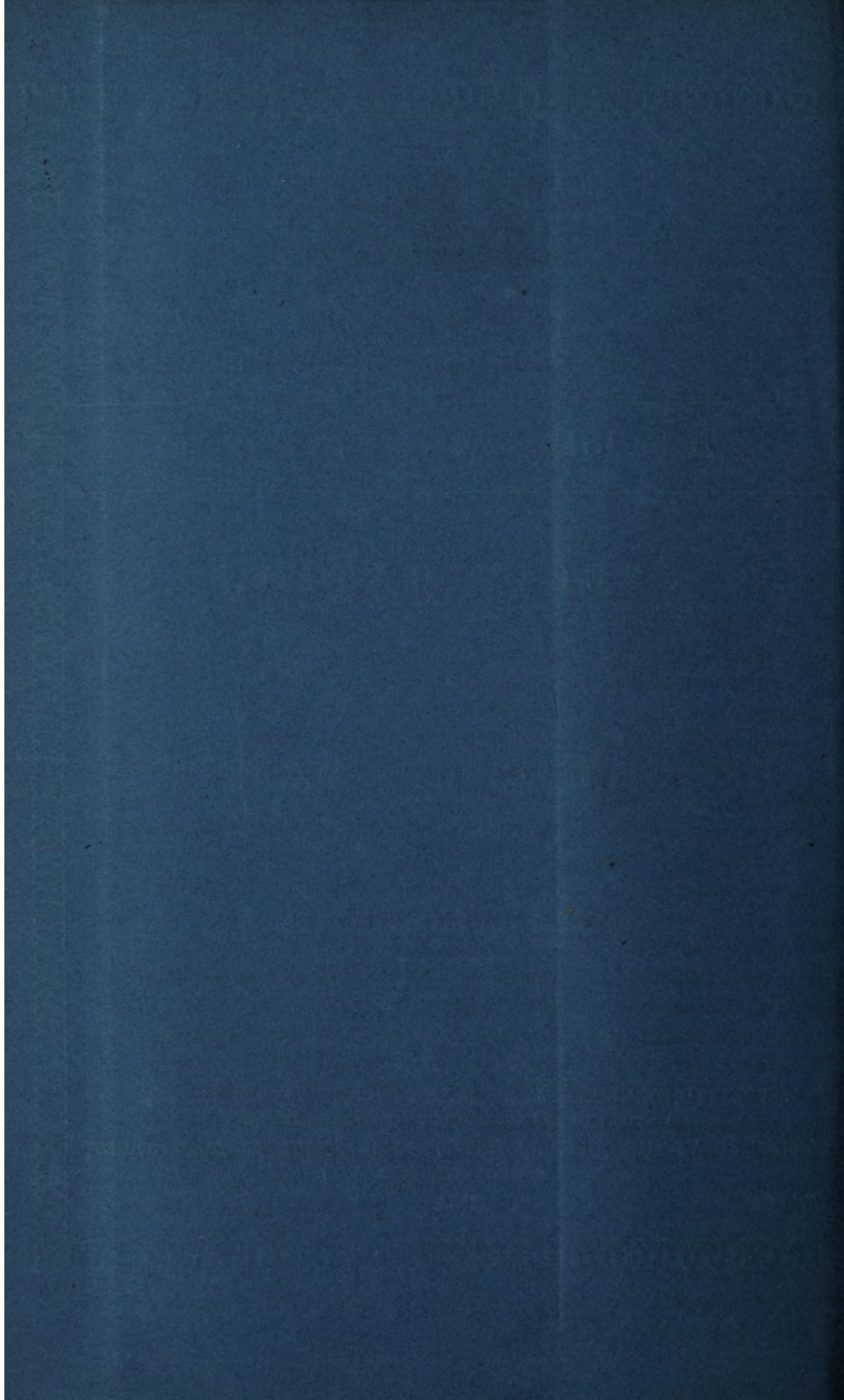
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Price 6d.

1854.





A.D. 1819 N° 4362.

Pneumatic Stove.

WILLCOX'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, THOMAS WILLCOX, of the City of Bristol, Mason, send greeting.

WHEREAS His present Majesty King George the Third in and by His Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Twenty-eighth day of April last past, for Himself, His heirs and successors, did give and grant unto me, the said Thomas Willcox, His special licence, full power, sole privilege and authority, that I, the said Thomas Willcox, my exors, admors, and assigns, and every of them, by myself and themselves, or by my and their deputy or deputies, servants, or agents, or such others as I, the said Thomas Willcox, my exors, admors, or assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick upon Tweed, my Invention of a "PNEUMATIC STOVE FOR HEATING ATMOSPHERIC AIR AND DIFFUSING THE SAME THROUGH HOUSES, HOT-HOUSES, GREEN-HOUSES, AND OTHER BUILDINGS, UPON THE PRINCIPLE OF INTRODUCING A COLUMN OF ATMOSPHERIC AIR INTO A CHAMBER CONTAINING A STOVE OF A NEW AND PECULIAR CONSTRUCTION, THEREBY CREATING A RESERVOIR OF HOT AIR CAPABLE OF BEING DIFFUSED BY MEANS OF FLUES THROUGHOUT BUILDINGS OF ANY DIMENSIONS;" in which said Letters Patent there is contained a proviso obliging me, the said Thomas Willcox, 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 inrolled 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 by the same, reference being thereto had, will more fully appear.

Willcox's Improved Pneumatic Stove for Heating Atmospheric Air, &c.

NOW KNOW YE, that in compliance with the said proviso, I, the said Thomas Willcox, do hereby describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, by the Plan or Drawing in the margin of these Presents and the following description thereof (that is to say) :—

5

THE DRAWINGS REFERRED TO BY THE ANNEXED SPECIFICATION.

REFERENCE.

Fig. 1, represents the elevation of stove with the damping door open, shewing charging door and stoking place.

2, longitudinal section of stove and warm air reservoir.

10

3, elevation of stove, with damping door shut.

4, ground plan of stove.

5, plan of stove, descending and ascending pipes, warm air reservoir, & cleaning pipe.

6, plan, level with the floor.

15

A, fire-place.

B, charging door.

C, stoking place.

D, flanch plate for the stove, & fire bars to lay on.

E, casing of ash hole.

20

F, bottom plate of ash hole.

G, pillars on which the plate F rests.

H, cleaning pipe.

I, reservoir for hot air.

K, cold air flue.

25

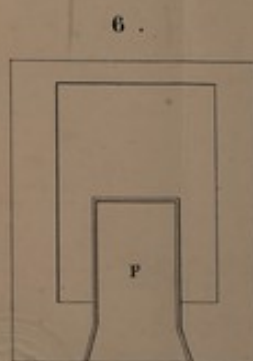
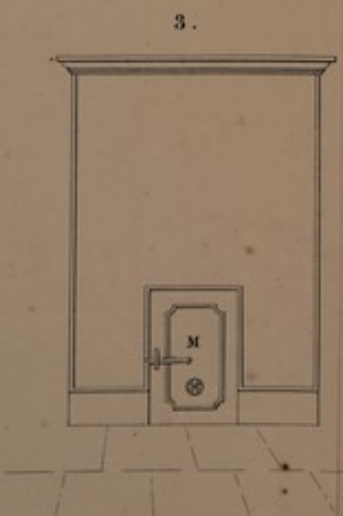
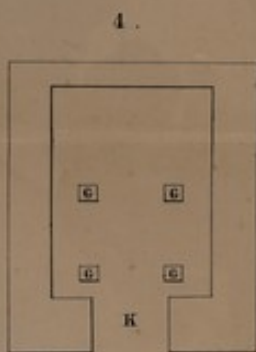
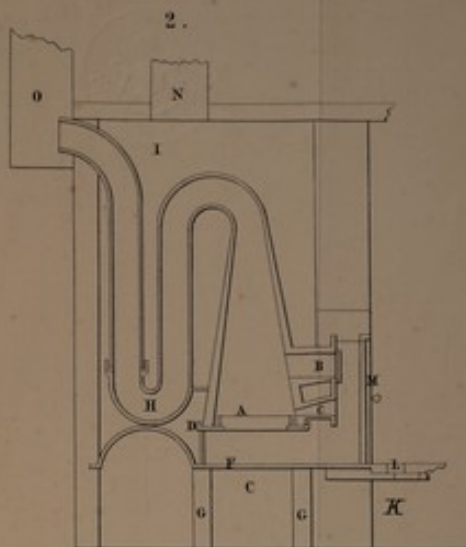
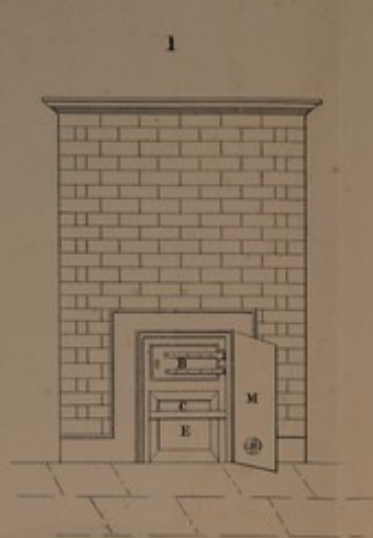
L, level of floor.

M, outside of damping door.

N, warm air flue.

O, smoke flue.

This stove is inclosed in a brick or stone chamber, into which the cold air 30 is admitted through an opening at the bottom or under side of the ash box, about fourteen inches square, but varying in dimensions according to the quantity of warm air required; the cold air then encircles the ash box, stove, and pipes, which are heated by a fire, as marked A at the fire-place on the Plan; the stove been of a serpentine form, the fire first ascends, then descends, 35 and again ascends into the smoke flue; by which means it retains its heat longer, and a greater surface of heated metal is exposed to the cold air, which thus, becoming rarified, ascends into conducting flues to any part of the building where it may be required.



The enrolled drawing is colored.

Mulby & Southby



Willcox's Improved Pneumatic Stove for Heating Atmospheric Air, &c.

The stove is about four feet high, of a circular plan, and the principal part of it of a conical shape; the bottom part, marked A, is sixteen or eighteen inches diameter, and regularly diminishes to the top, which is about ten inches diameter, and, forming a semicircle, descends the same length about eight
5 inches diameter, with a connection at the bottom for the purpose of cleaning that part when required; then, turning in the same manner as before, ascends about seven inches diameter into the smoke flue.

The outside or damping door, marked M, is nearly air-tight, to prevent the fuel being consumed unnecessarily, with a small regulator in the bottom to
10 admit air when wanted.

The ash box E is of cast iron, resting on small stone or brick pillars, under which the cold or atmospheric air is first admitted; the flanch, or bearing plate for the bars and stove, marked D, is fixed on the box E in a sunk rebate three inches deep, and cemented, on the inside part of which rest the fire bars. The
15 stoking place, C, about nine inches by three, is on a level with the bars, hopper-like for convenience of stirring the fire.

The charging door is kept nine inches above the bars, for the purpose of more easily feeding the fire.

The stove being circular, the fire acts on all parts of it at the same time. It
20 is manufactured of cast or wrought iron.

The place in which the stove and chamber are erected is generally on the basement story, and may be kept either cold or warm.

In witness whereof, I, the said Thomas Willcox, have hereunto set my
hand and seal, the Twenty-first day of June, in the year of our Lord
25 One thousand eight hundred and nineteen.

THO^s. (L.S.) WILLCOX.

AND BE IT REMEMBERED, that on the Twenty-eighth day of June, in the year of our Lord 1819, the aforesaid Thomas Willcox came before our said Lord the King in His Chancery, and acknowledged the Specification afore-
30 said, and all and every thing 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.

Inrolled the twenty-second day of June, in the year of our Lord One thousand eight hundred and nineteen.

LONDON :

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

