

Z. BOSWORTH.

Heating Stove.

No. 2,538

Patented April 6, 1842.

Fig. 1.

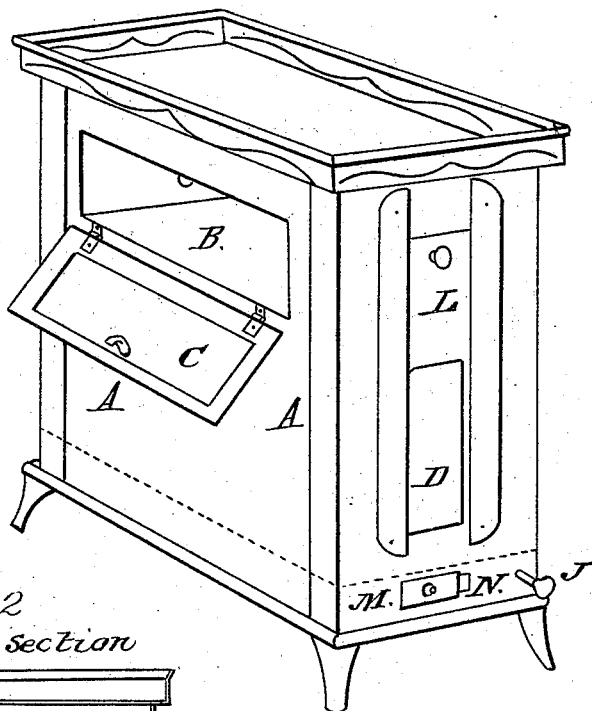


Fig. 2
Section

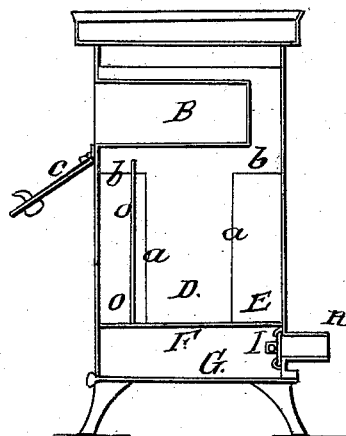
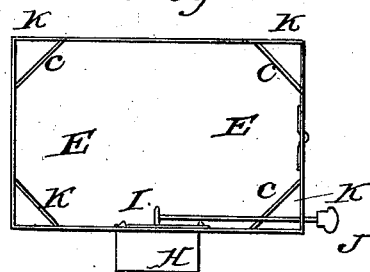


Fig. 3



UNITED STATES PATENT OFFICE.

ZEPHANIAH BOSWORTH, OF MARIETTA, OHIO.

AIR-TIGHT STOVE.

Specification forming part of Letters Patent No. 2,538, dated April 6, 1842; Reissued January 19, 1858, No. 522.

To all whom it may concern:

Be it known that I, ZEPHANIAH BOSWORTH, of Marietta, in the county of Washington and State of Ohio, have made a new and useful improvement in the manner of constructing an air-tight stove for warming apartments and to which also an oven may be added, if preferred; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing, Figure 1, is a perspective view of my stove; Fig. 2, a vertical section thereof from front to back, through its center, and Fig. 3, a view of the false bottom to be presently described, the lowermost, or bottom, plate being removed to show it, and the openings into the flues at the four angles.

A, A, is the front plate of the stove, which, when not constructed with the addition of an oven, has no opening through it.

B, is an oven having a drop door C. This oven projects into the fire-chamber, or body, of the stove, leaving a free space around it, as shown above, below, and behind it, in Fig. 2; its ends, in like manner, have a free space between them and the end plates of the stove.

D, D, is the fire-chamber, or heated-air space; the fuel contained in this chamber rests upon a false bottom, E, E; the place of which is shown by dotted lines in Fig. 1.

F, is a flue space between the plate E, and the bottom plate G; and H, is the exit, or smoke, pipe, leading from this flue space into a chimney, or elsewhere. A close fitting damper, I, is connected to this exit pipe, or opening, which is regulated by the handle J. The false bottom, E, E, has its four corners taken off, so as to leave four triangular flue openings through it; one at each corner of the stove, as shown at K, K,—Fig. 3. The four flues are formed by four flat plates which constitute the hypotenuse of the triangular flue spaces. These plates terminate at *b, b*, and through the flues thus formed, which are all descending, or diving, flues, there is a free communication from the fire chamber to the space F, under the false bot-

tom. L, is a sliding door, opening into the fire chamber for the supply of fuel, and the regulation of the draft; this door should be made to fit very closely.

M, is a slide covering a draft hole N, which leads into the flue space F; through this opening a portion of air may be admitted when it is desired to lessen the combustion, thus allowing any desired quantity to pass directly to the pipe H, without entering the chamber of combustion.

O, O, represents a section of a partition of grate bars, extending from end to end of the fire chamber, near the front, and which are designed to prevent the direct contact of the burning fuel with the outer plate; there may be similar grate bars toward the back and end if desired, but as the combustion within the stove can be regulated with the utmost facility by means of the door and damper, the overheating of the external plates may be controlled independently of a provision of this kind.

Having thus fully described the manner in which I construct my stove, and construct and form the respective parts thereof, what I claim therein as new, and desire to secure by Letters Patent, is—

The manner in which I have arranged the four descending flues K, K; the space F, under the false bottom E, and the exit flue H, in combination with the opening N, into the space F; so as to coöperate with the other parts of said stove in regulating the heat, and determining the amount of the draft; and this I claim whether combined with the oven B, or not. The sliding door L, the drop door C, and other parts of this stove do not differ from such as have been previously known and used, and I do not, therefore, make any claim to these, or in fact to any part of the stove taken individually, but I limit my claim to the special combination and arrangement substantially as above set forth and made known.

ZEPHANIAH BOSWORTH.

Witnesses:

SETH HART,
SAML. SHIPMAN.