O. M. BUTTLES.

Heating Stove.

No. 35,135. Patented May 6, 1862.

Fig. 1

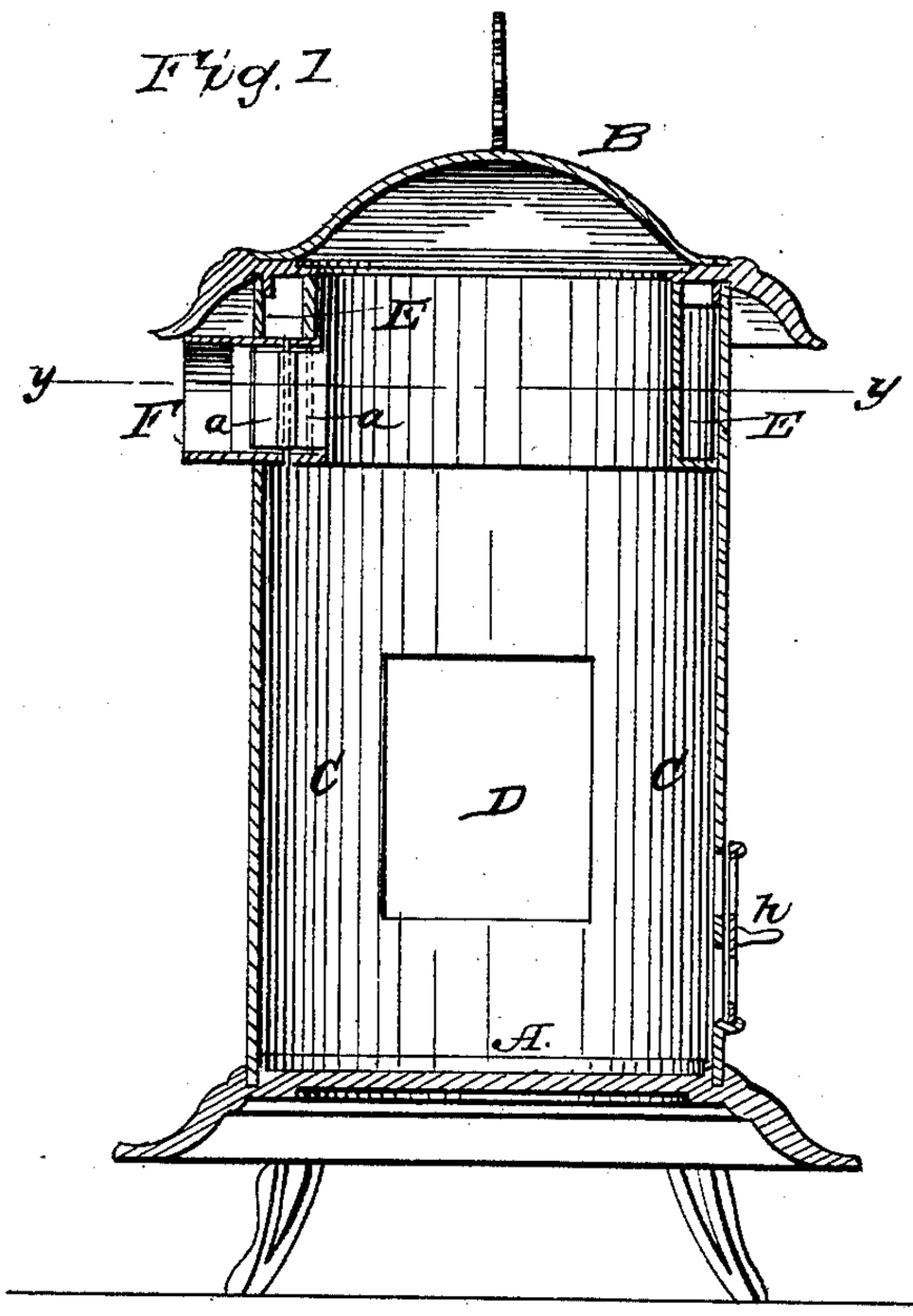
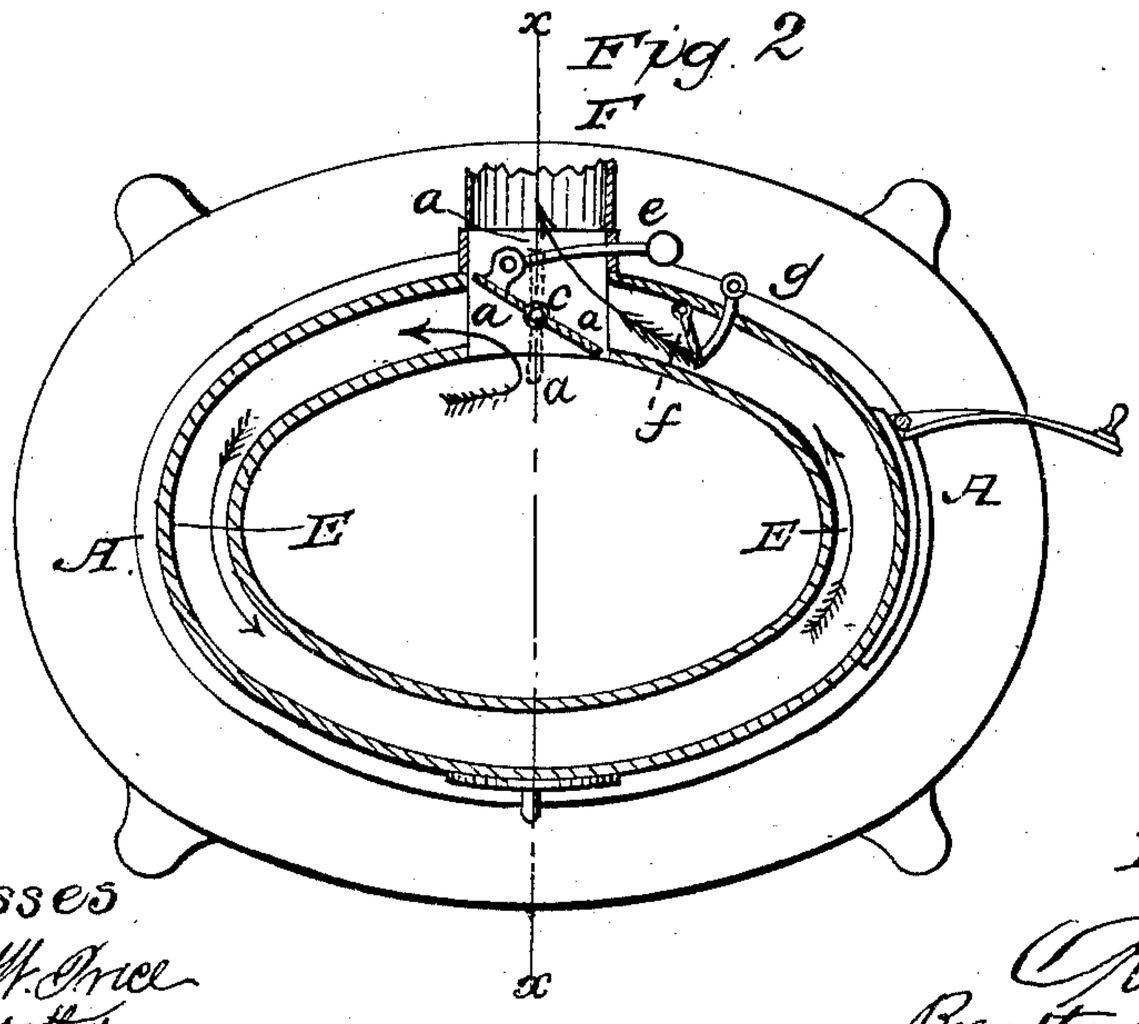


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

ORIN M. BUTTLES, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. **35,135**, dated May 6, 1862.

To all whom it may concern:

Be it known that I, ORIN M. BUTTLES, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Sheet-Iron, Air-Tight, or other Stoves; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a vertical section through the stove, taken at the red line *x x* of Fig. 2; and Fig. 2 represents a horizontal section taken through the red line *y y* of Fig. 1.

Similar letters of reference, where they occur in the separate figures, denote like parts in both.

My invention consists in the manner in which I have arranged a circular flue at the top of the stove in such connection with the exit-pipe that a single throttle-valve or damper may turn the escaping products of combustion into the circular flue or allow them to pass directly into the exit-flue, as may be desired, the circular flue when used acting as a radiator to throw out the heat of the otherwise escaping heated products of combustion.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents the base, and B the top, of the stove, which are united by a sheet-iron body or cylinder, C, of an oval or any other form.

D is the door, through which the fuel is fed into the stove.

Around the top of the stove I arrange a flue, E, in which a valve, *a*, is placed. This flue E connects with the exit-flue F, and the valve *a* is so located with regard to both that when in the position shown by red lines in Fig. 2 the escaping products of combustion will pass directly from the fire through the exit-flue F; but when the valve *a* is turned as shown in black in Fig. 2, then the smoke, gases, and heated products pass into the flue E and go entirely around the stove, and thence out into the exit-flue F, as shown by the arrows, thus causing the smoke, gases, &c., to impart their heat to the metal surrounding the flue, which in turn radiates it into the room. The valve *a* is pivoted at *c*, and has a handle, *e*, protruding to the outside, by which it may be operated. Another valve, *f*, may be placed in the flue E to check the draft through it when too great. This valve has a handle, *g*, by which it may be opened and closed at pleasure. By using this circular flue at the top of the stove I make available a great portion of the heat which heretofore in this kind of stove has been allowed to pass off and escape.

A register, *h*, of the ordinary kind may be used. The register and top and bottom plates may be cast. The other portions of the stove may be of sheet-iron, and for a cheaper kind of stove the whole may be made of sheet-iron.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The arrangement of the circular flue E at the top of the stove and in such position with regard to the exit-flue that a common valve, *a*, may turn the escaping products of combustion into either flue, substantially as and for the purpose herein described and represented.

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