Z. HUNT.

Cooking Stove.

No. 41,579. Patented Feb. 9, 1864.

Fig. 2
Section

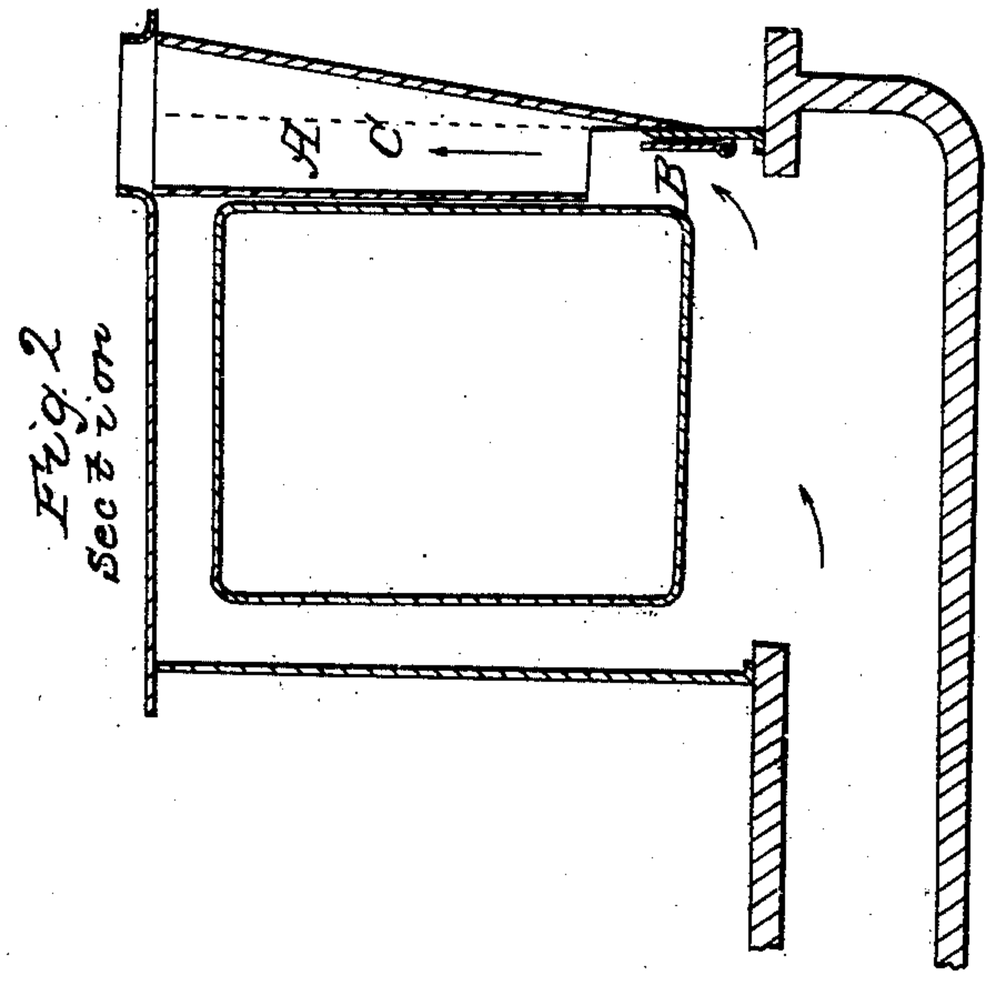


Fig. 3

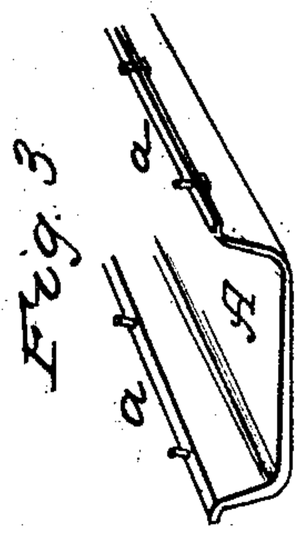
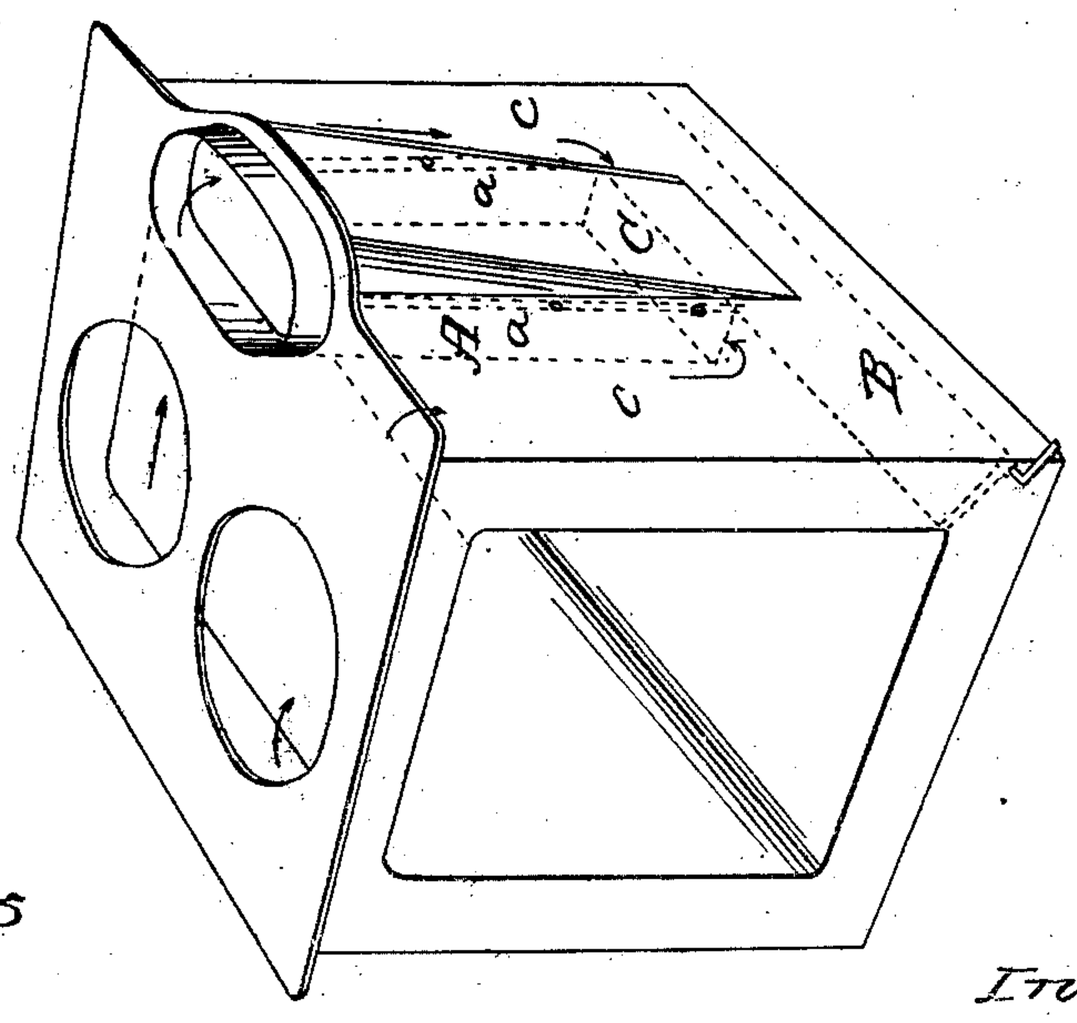


Fig. 1



Witnesses
Isaac A. Colby
Arthur Parton.

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UNITED STATES PATENT OFFICE.

ZEBULON HUNT, OF HUDSON, ASSIGNOR TO HIMSELF AND WILLIAM J. MILLER, OF GREENPORT, NEW YORK.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **41,579**, dated February 9, 1864.

To all whom it may concern:

Be it known that I, ZEBULON HUNT, of the city of Hudson, in the county of Columbia and State of New York, have invented a new and Improved Mode of Constructing and Arranging the Flues of an Elevated Oven for Cooking-Stoves; and I do declare that the following is a full and exact description thereof, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a rear perspective view of the oven. Fig. 2 is a vertical sectional view. Fig. 3 is a perspective view of the trough-shaped flue-piece A, detached.

Letter A is the flanged flue-piece, which, in combination with a corresponding recess in the outer back wall of the oven, forms the pipe-flue C; letter B, the damper at bottom of back flues for changing them from direct to revertible, and "vice versa;" C, the vertical pipe-flue; *a a*, flanges on flue-piece A; *c c*, two rear side flues.

The nature of my invention consists in forming a vertical pipe-flue in the middle of the space between the inner and outer back walls of an elevated oven for cooking-stoves by means of a trough-shaped piece of cast-iron, with flaring or flanged edges screwed on vertically to the inside of the outer back wall of the oven, in combination with a corresponding vertical recess cast in the back wall or plate, and in so locating a damper in the flues of the oven as to make it, in itself and independent of the stove with which it may be connected, a direct or a revertible flue-oven, at pleasure.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my elevated oven of cast or sheet iron in the usual box or parallelogram form, so far as the outer and inner walls are concerned. I then place a cast-iron trough-shaped piece, A, vertically in the middle of the space between the outer and inner back walls of the oven. This piece is provided with flaring or flanged edges *a a*, by means of which it is screwed onto the inside of the back wall or plate of the oven. It does not extend as low down as the bottom of the oven. Room enough is left below it for the flues and the free operation of the damper B, which is so located as to close up entirely the bottom of the back flues. At its upper end this flue-piece A terminates at the collar or top plate of the oven. Thus by means of this flue-piece, placed vertically in the space behind the oven and opposite to a corresponding vertical recess cast in the outer back wall, is formed the vertical or pipe flue C. The back flue, *c c*, on each side of this middle or pipe flue may be closed at the bottom by means of the damper B, when the oven becomes a revertible flue oven.

The flue-piece A is entirely separate from and independent of the lining or inner plate of the oven, being cast separately and screwed or riveted fast to the outer back plate, as above described.

The damper B being so placed as to close up the bottom of the entire space between the inner and outer walls of the oven, the flues are readily changed by it from direct to revertible, and vice versa. This oven can, therefore, be made separately and be used on any cook-stove. Constructing the flue C in this manner is much more economical for the manufacturer, both in labor and material, than any other mode now employed. Besides, no elevated oven-flues can be so easily converted from direct to revertible independent of the stove on which it is used.

As I now construct the stove for using this elevated oven the course of the draft or of the fire and smoke is as follows, and as indicated by the darts on the drawings. (See Figs. 1 and 2.) Commencing at the fire, when the damper B is open, the smoke and heat pass under the oven, spreading out in contact with the whole of the bottom plate, there being no top plate to the stove under the oven, (see Fig. 2,) and thence directly into the middle or pipe flue, C, and thence into the pipe. When the damper B is closed, a portion of the heat and smoke spread out, as before, under the oven, the balance passing up in front of the oven, thence over the top in one sheet, and, dividing at the back, passes down the two side flues, *c c*, to the damper B, where it is arrested, and the two again uniting enter the bottom of the pipe-flue C and escape into the

pipe, thus completely enveloping the oven except at its two ends where are placed the doors.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

In the back flues of elevated ovens, the trough-shaped flue-piece A, combined with the projection C, to complete the flue, and with the damper B, situated at the bottom of the flue, as above described.

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Witnesses:
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