

C. BALDWIN.
STOVE.

No. 176,577.

Patented April 25, 1876.

Fig. 1.

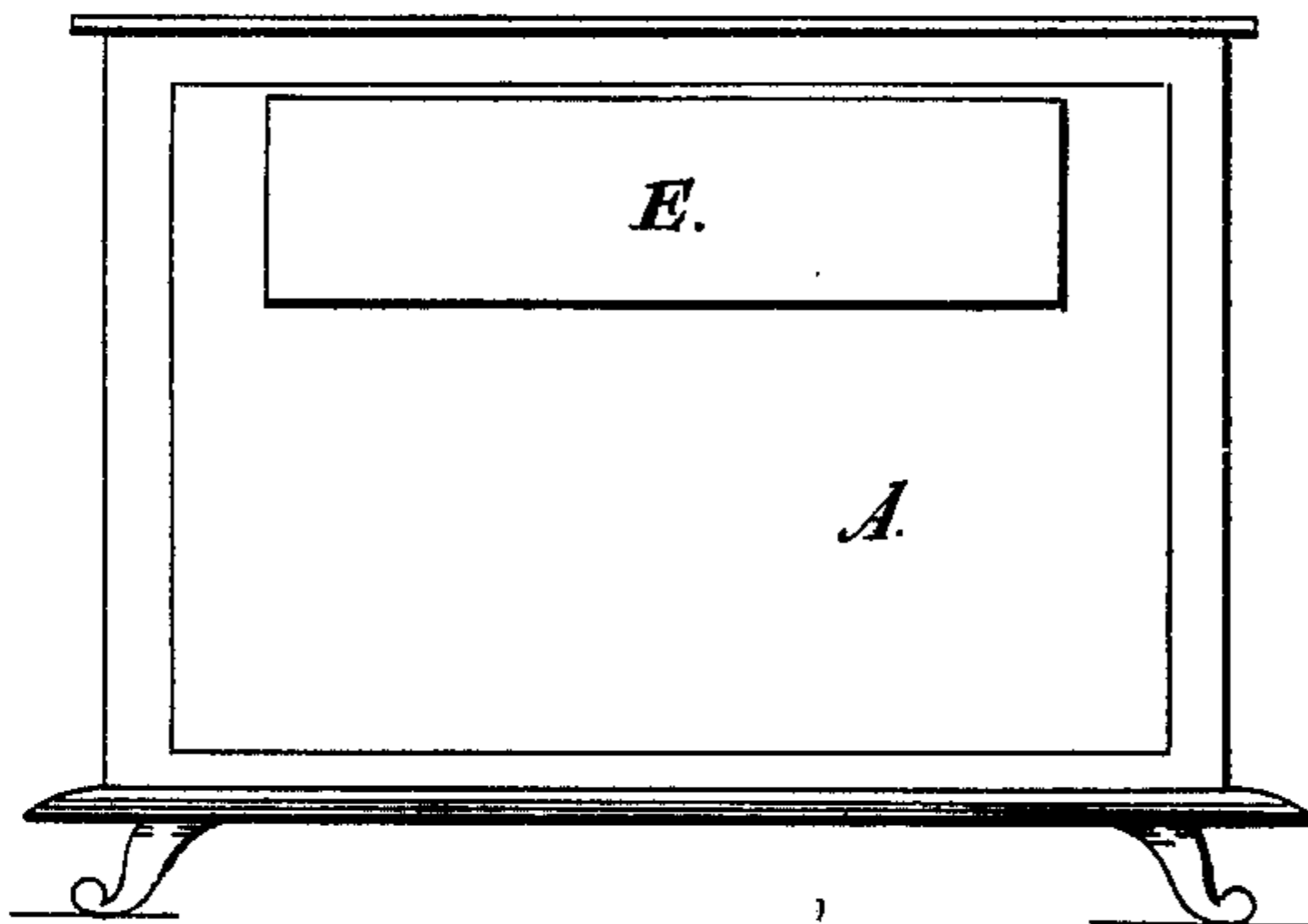


Fig. 2.

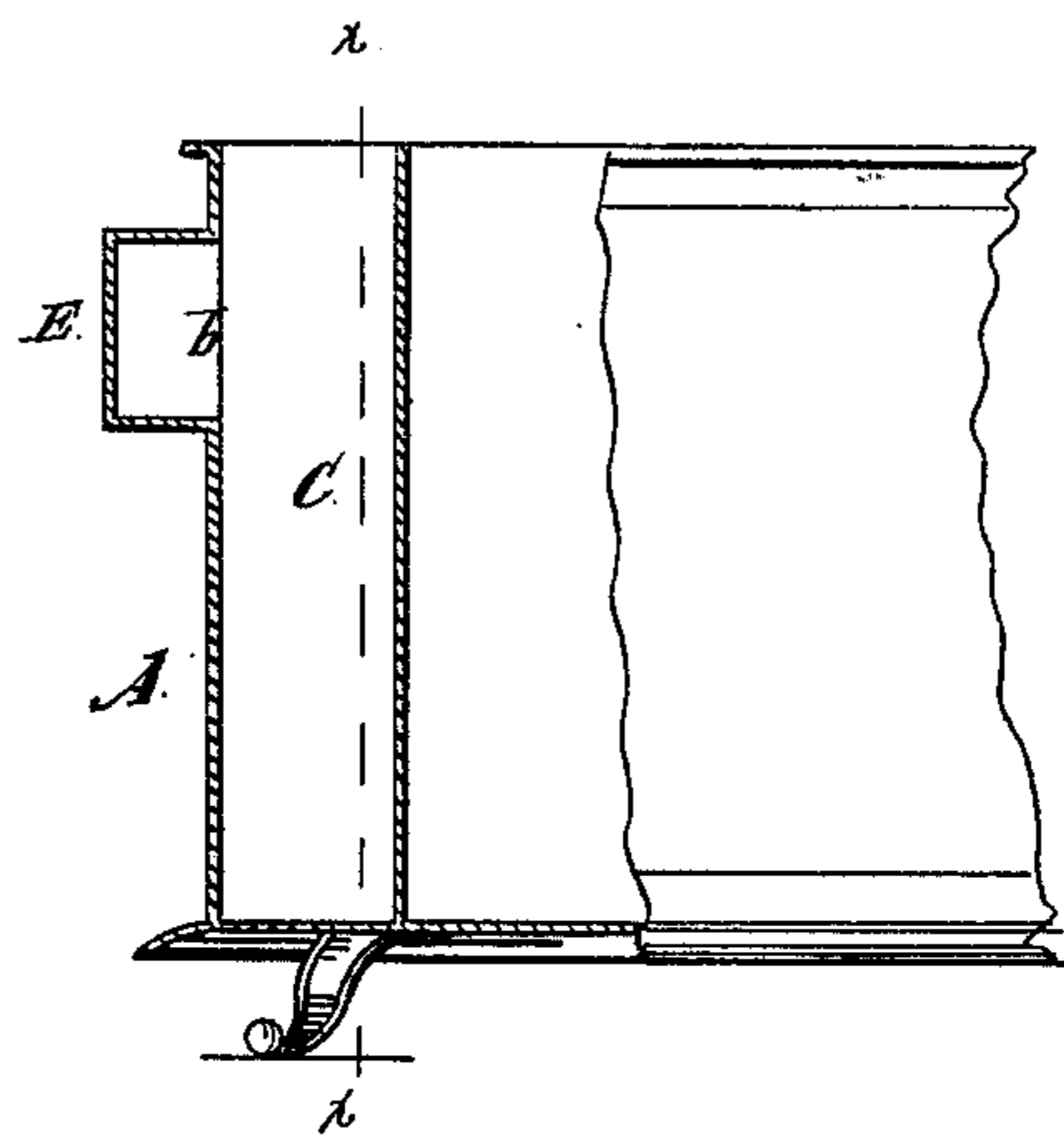


Fig. 3.

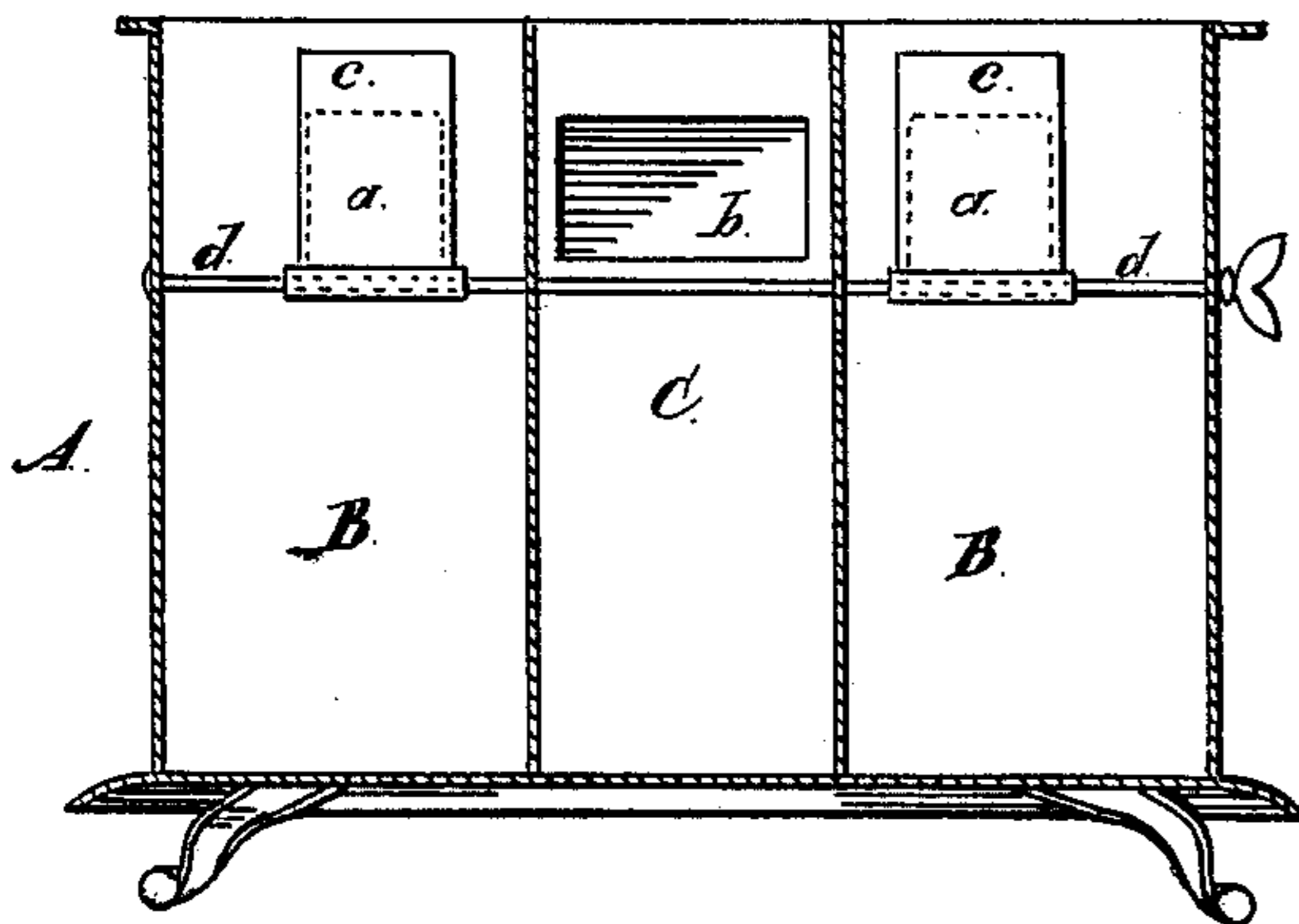


Fig. 4.

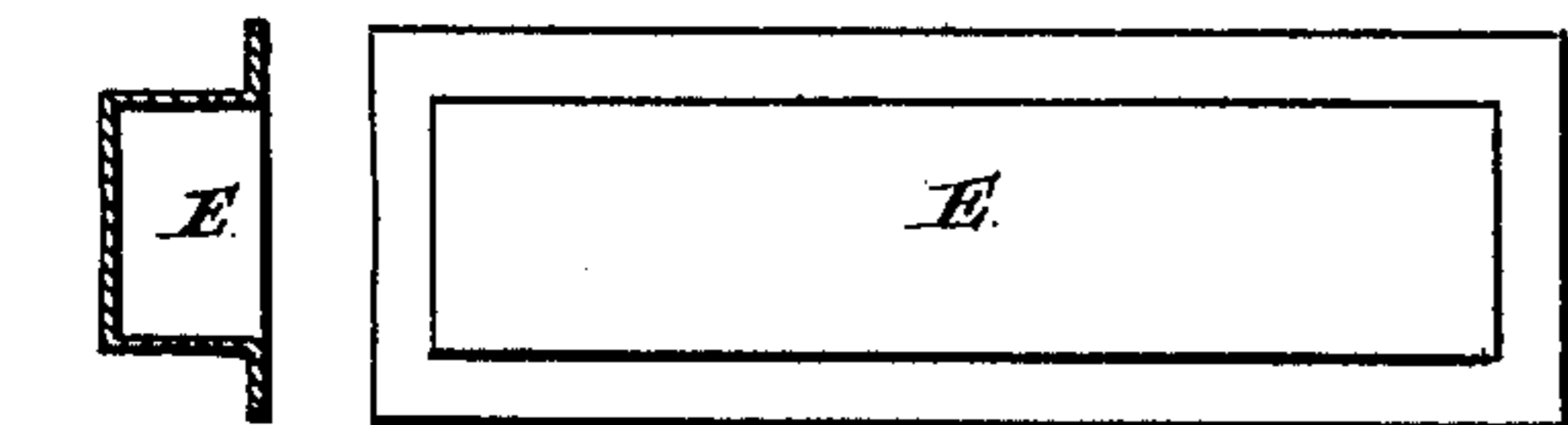
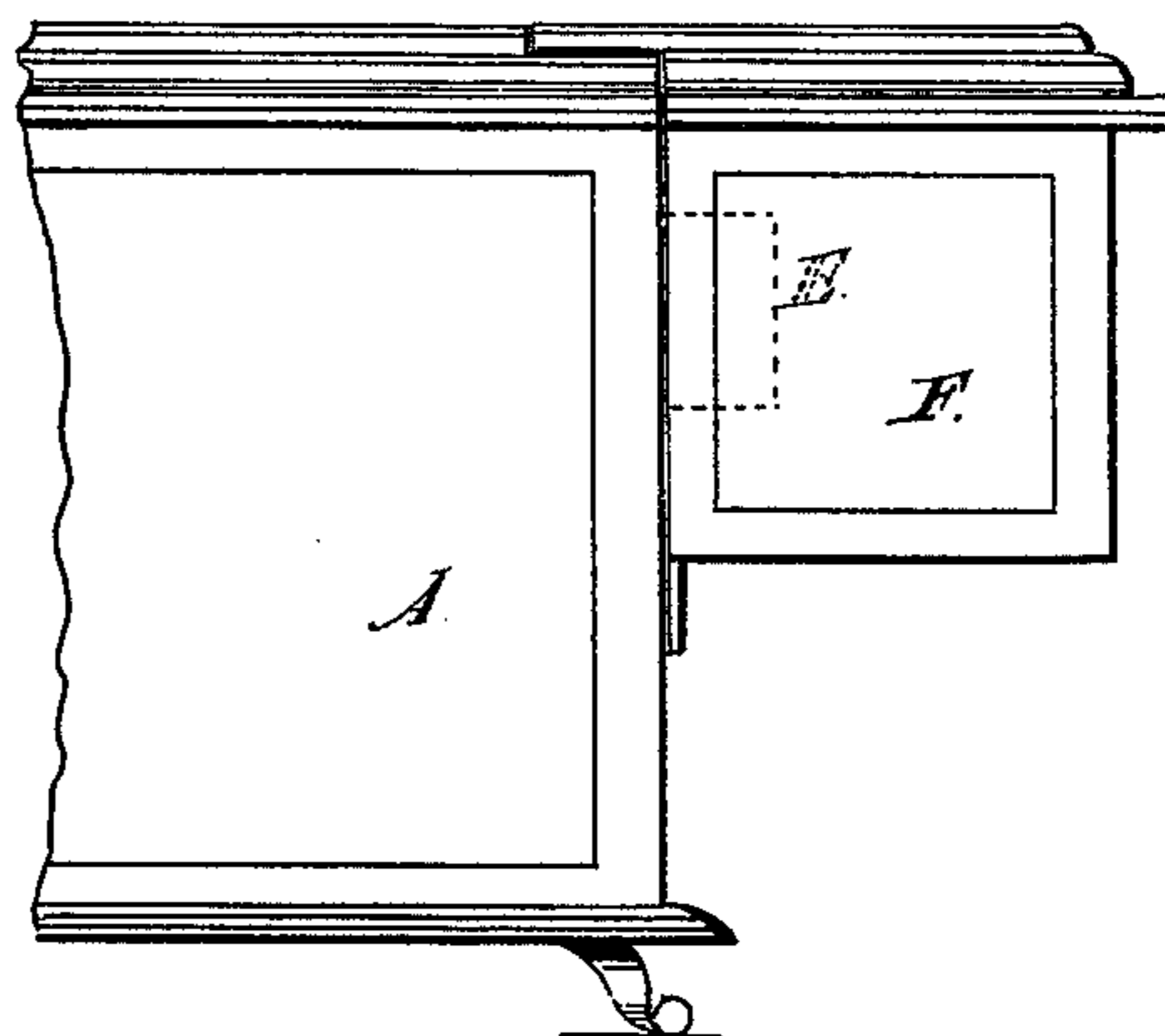


Fig. 6.

Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES BALDWIN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. **176,577**, dated April 25, 1876; application filed February 29, 1876.

To all whom it may concern:

Be it known that I, CHARLES BALDWIN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Stoves, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is an end elevation of the back of a stove with my improvement; Fig. 2, a side elevation of the same, partly in section; Fig. 3, a cross-section, taken on the line *x x* in Fig. 2; Fig. 4, a side elevation of the stove with reservoir attached; and Figs. 5 and 6 represent a plan view and cross-section of the back-plate attachment in detached form.

The invention consists in a small supplementary chamber projecting from the back plate of a stove, independent of the reservoir, and closed on all sides, except at its front; and also in the combination of said chamber with the back plate, cast in one piece therewith, as hereinafter set forth.

In the drawings, A represents a stove which is constructed with the downward flues B B and upward flue C at its back, in the manner which is now well known, and requires no further description. This back plate D is also provided with the usual openings *a a* into the flues B, and *b* into the flue C, the two former being controlled by dampers *c c* on the rock-shaft *d*.

In the construction of stoves heretofore used, when the reservoir is attached to the back of the stove, the openings *a a* admit the heat to come directly against the front of the reservoir in a small chamber constructed therein, and the stove cannot be used except with the reservoir attached, for if the latter is removed the products of combustion will escape through the openings *a a* into the room. To obviate this I cover the openings in the back plate of the stove with a small close chamber, E, which may be cast with the back plate or made separately and attached thereto. The circulation of the products of combustion is through the openings *a* into the chamber E, and thence through the opening *b* into the draft-flue C.

When the reservoir F is attached to the stove in the ordinary way, the chamber E will be inclosed within the heating-chamber of the reservoir, and sufficient heat will be radiated therefrom to warm the water in the reservoir, as usual.

As the projecting chamber E covers the openings *a* it will be seen that even when the reservoir is detached from the stove the products of combustion cannot escape into the room, but will be retained within the chamber E as they circulate through the latter. For this reason the reservoir may be removed, if desired, and the stove used as a plain-back stove without any additional attachment.

In the construction of new stoves with my improvement I prefer to cast the chamber E in one piece with the back plate; but the invention may be applied to stoves already in use by constructing the chamber separately, as shown in Figs. 5 and 6, and attaching it by its flanges to the back plate in any suitable manner. When this is done stoves now in use may be used either with or without a reservoir, at the option of the owners. With this construction the chamber E may be removed, if desired, when the reservoir is attached.

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

1. A supplementary chamber, E, projecting from the back plate of a stove independently of a detachable reservoir, and communicating with the flues by openings in the back plate of the stove, but closed entirely at the rear, so that the products of combustion cannot pass behind it, substantially as and for the purposes set forth.

2. The combination of the back plate D and chamber E, cast in one piece, substantially as described.

CHARLES BALDWIN.

Witnesses:

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