

D. E. PARIS.
Cooking Stoves.

No. 153,601.

Patented July 28, 1874.

Fig. 1.

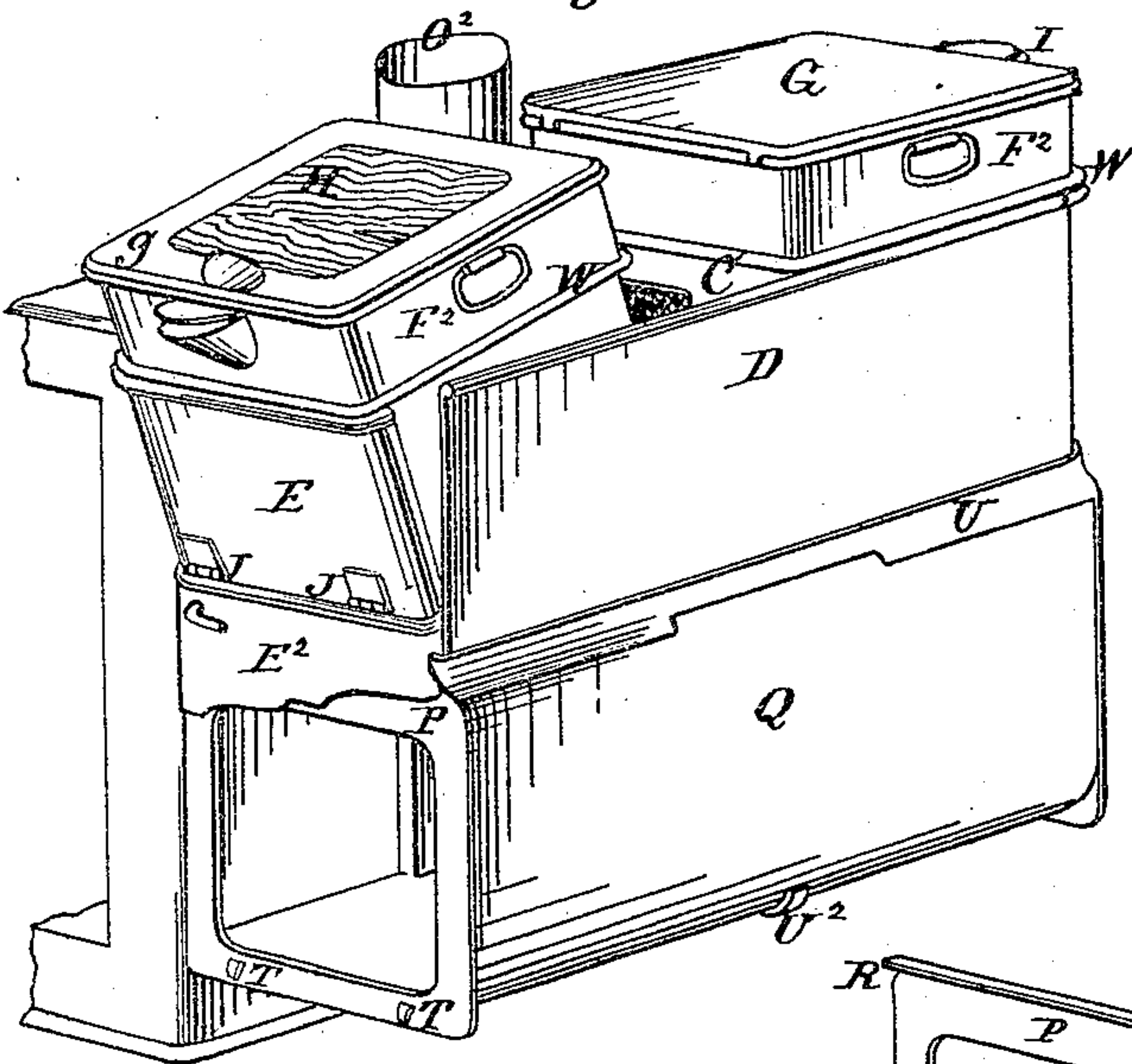


Fig. 2.

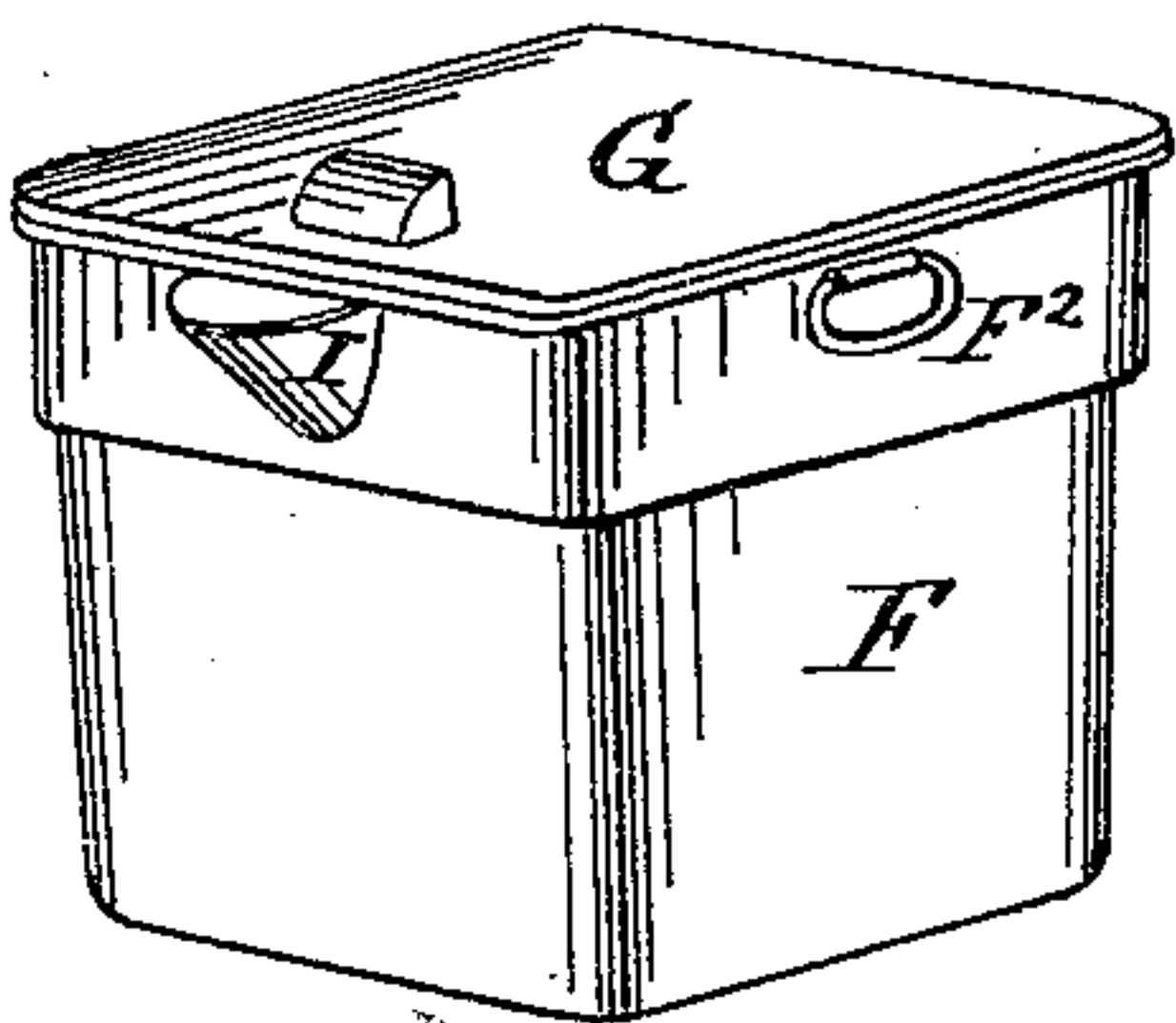


Fig. 3.

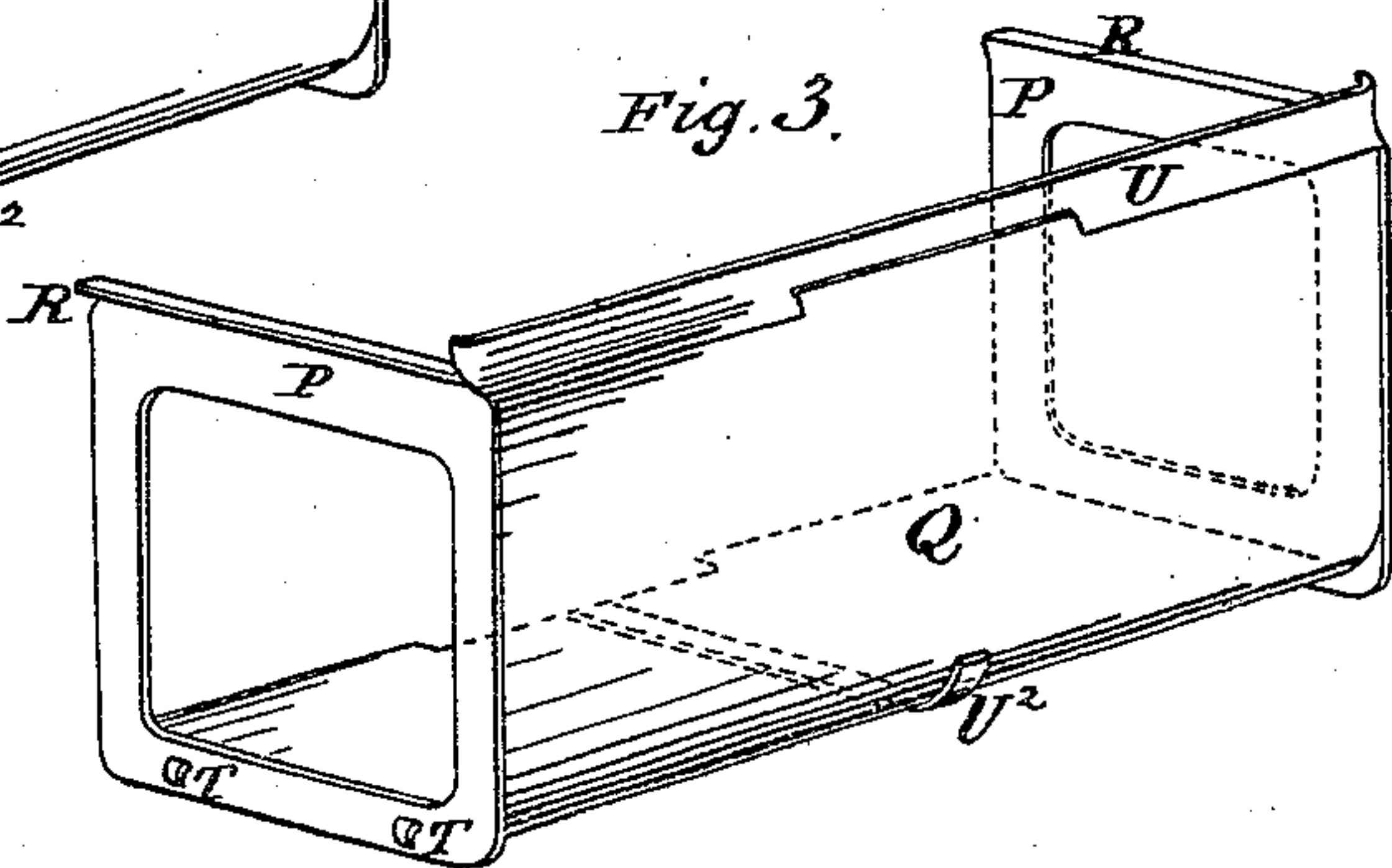


Fig. 4.

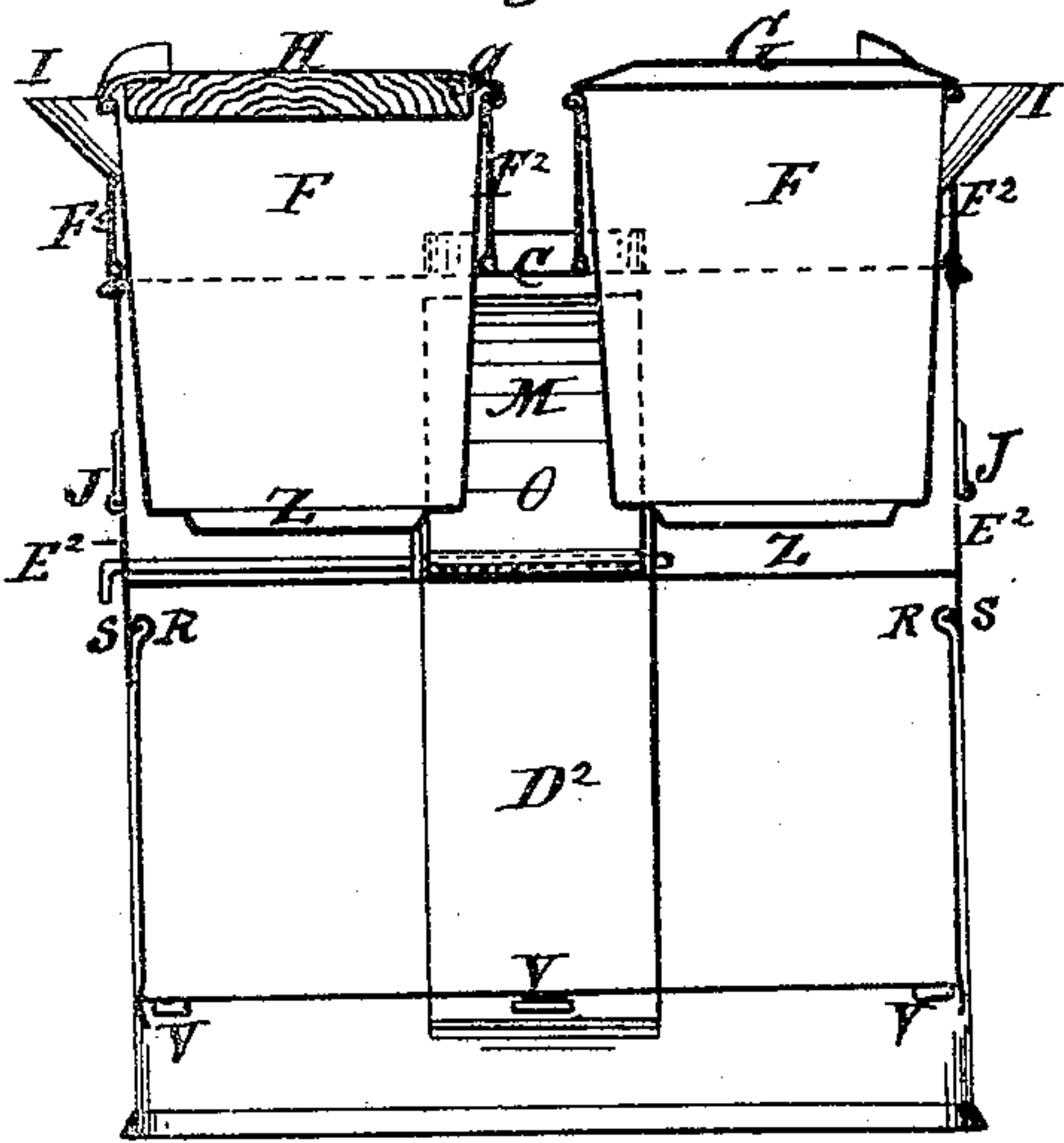
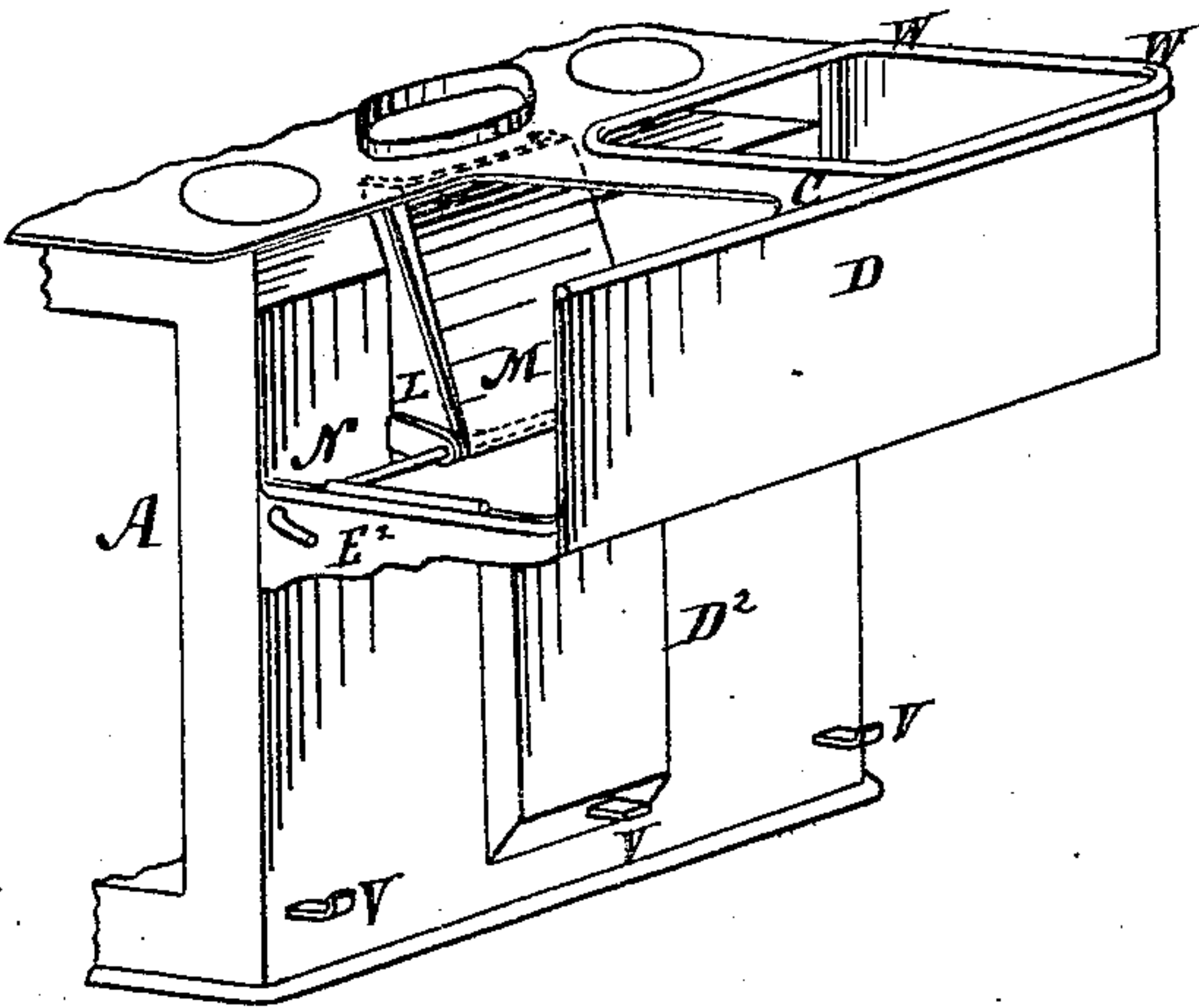
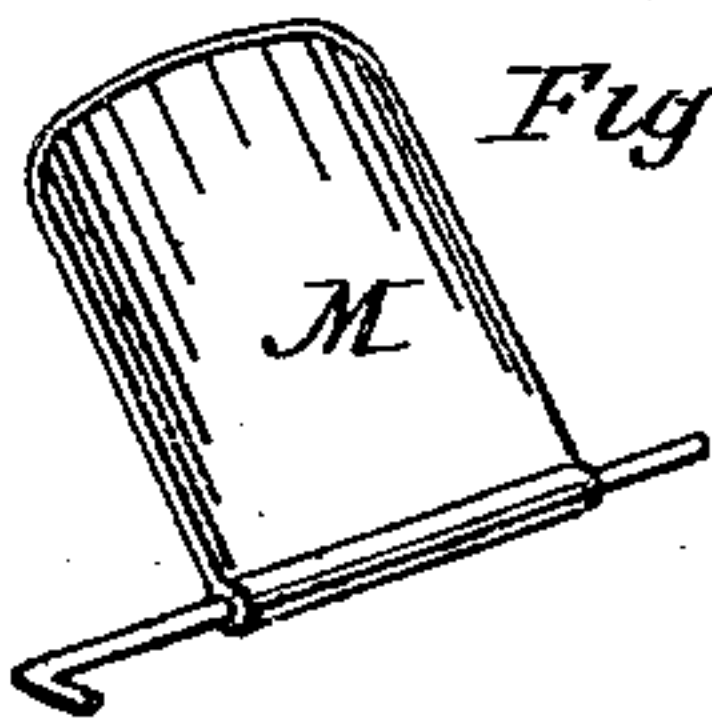


Fig. 5.



Witnesses
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Fig. 6.



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Fig. 7.

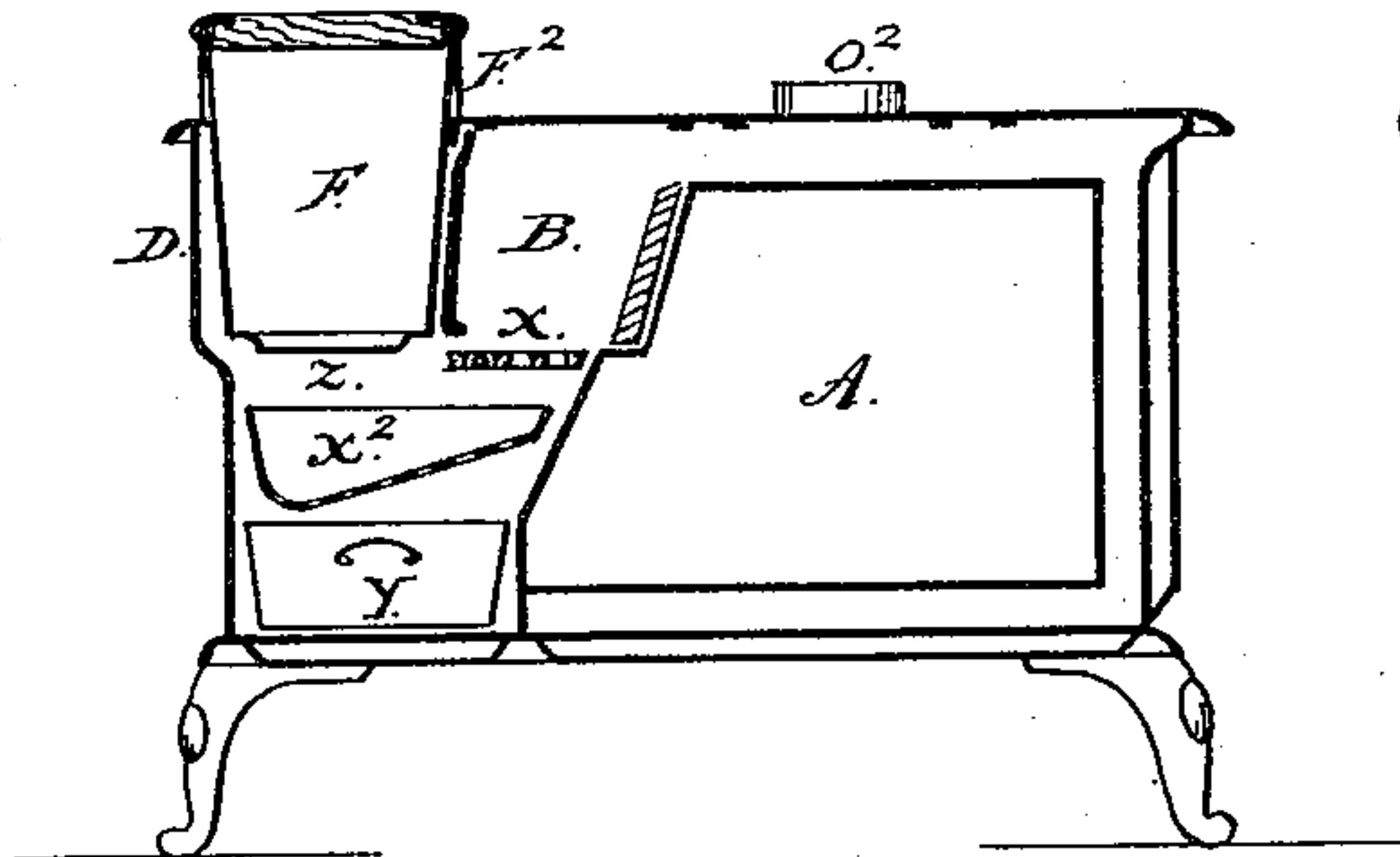


Fig. 8.

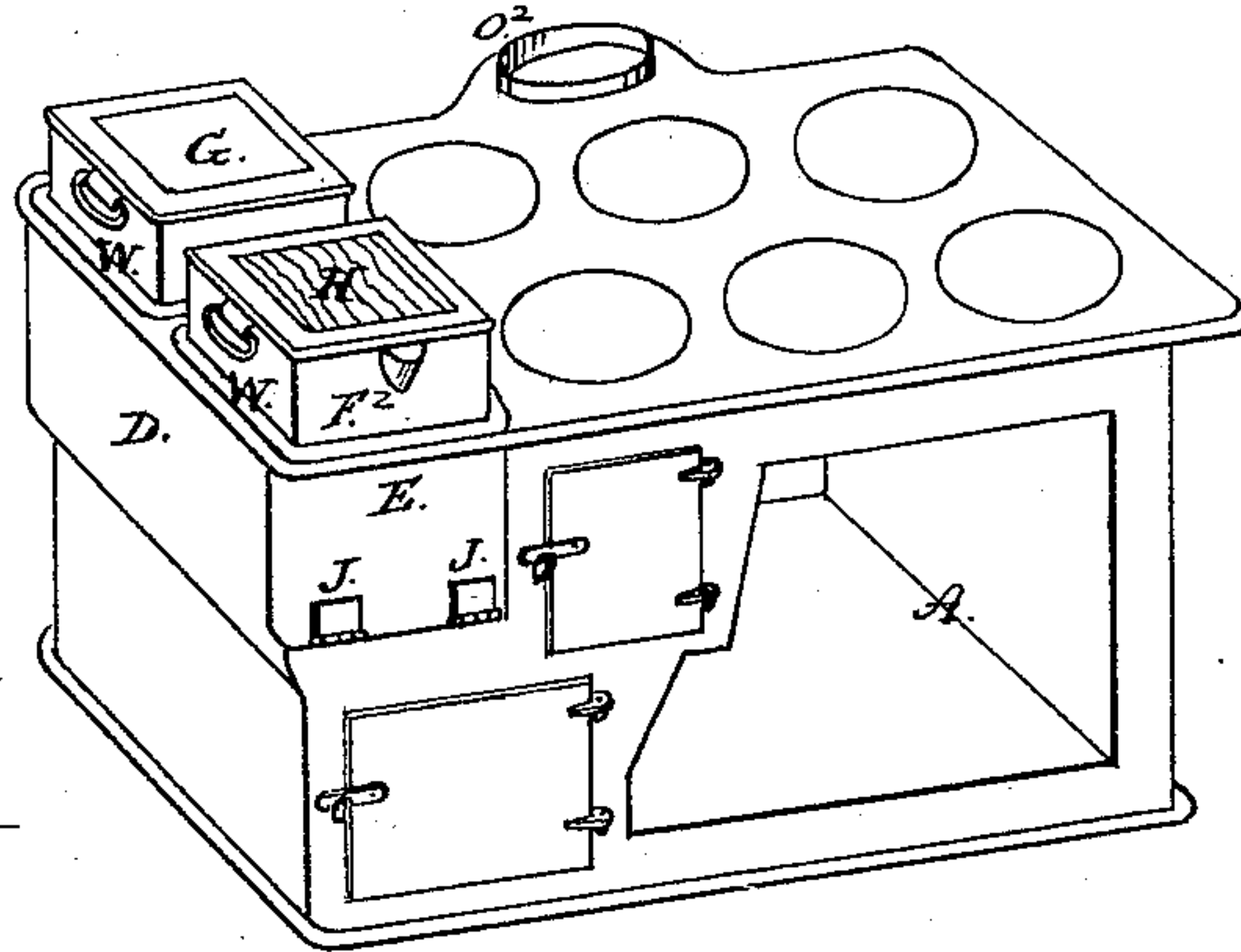


Fig. 12.

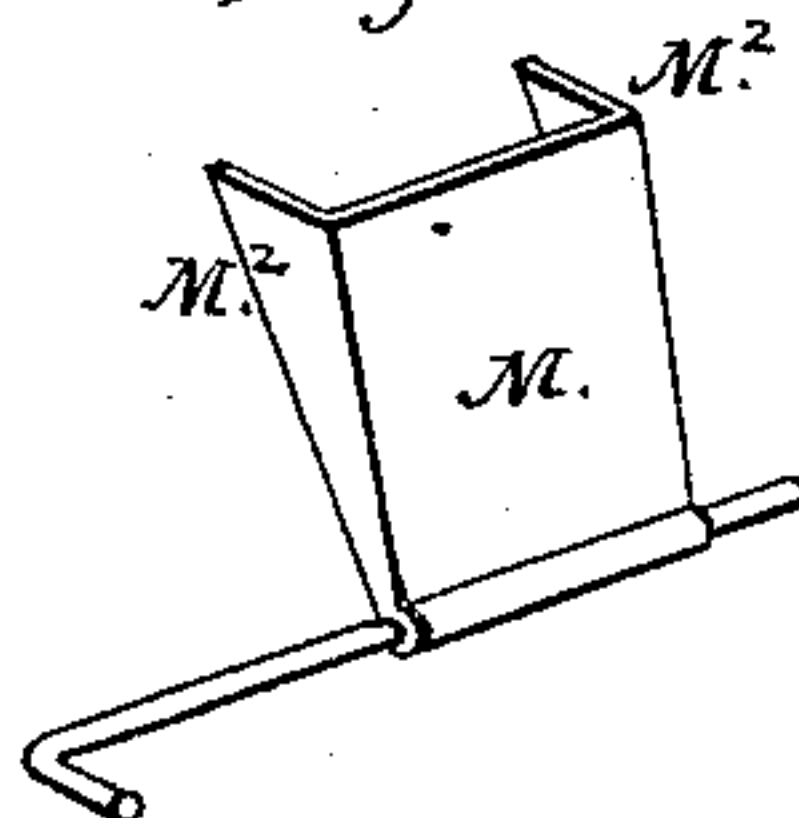


Fig. 9.

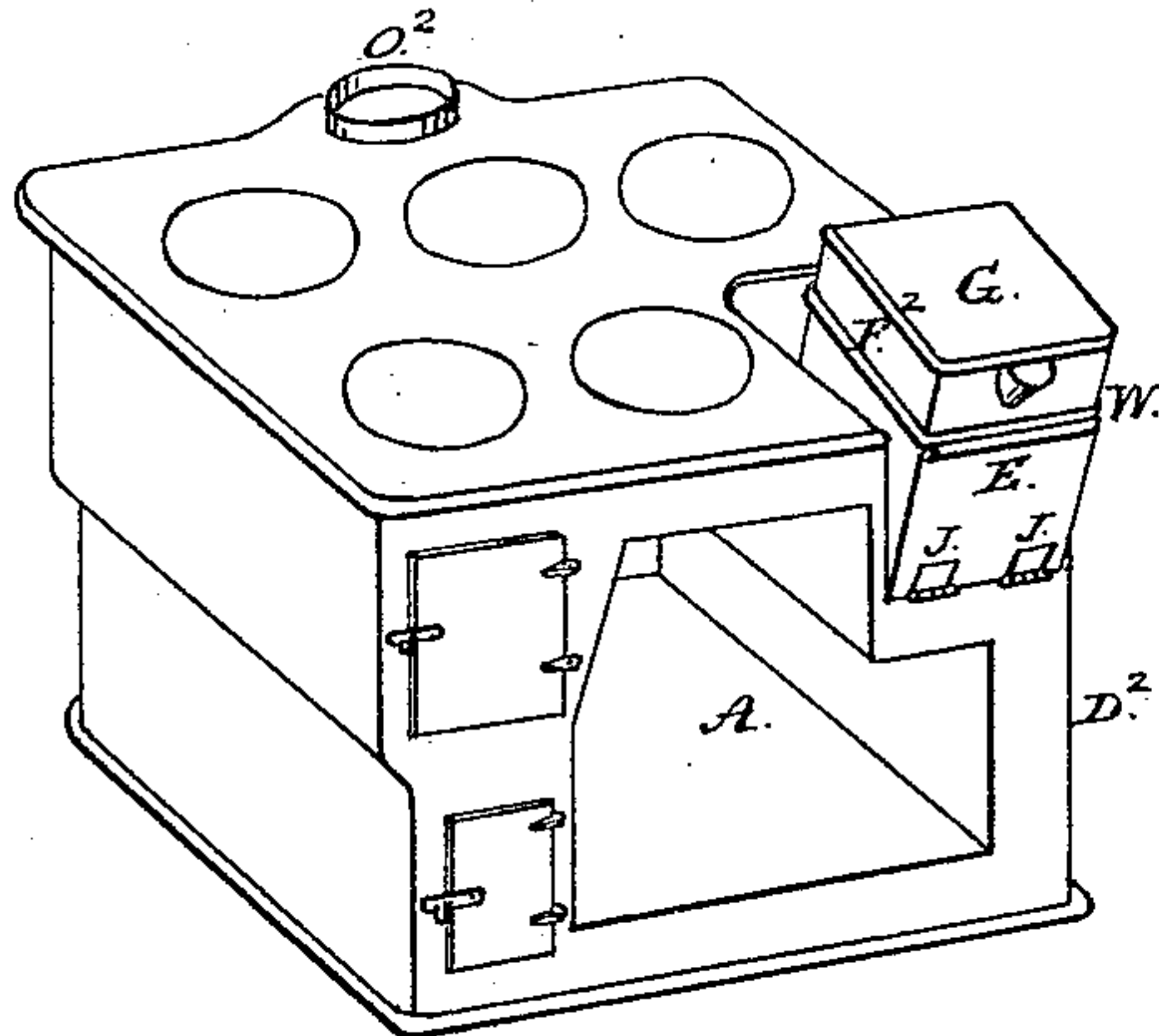


Fig. 10.

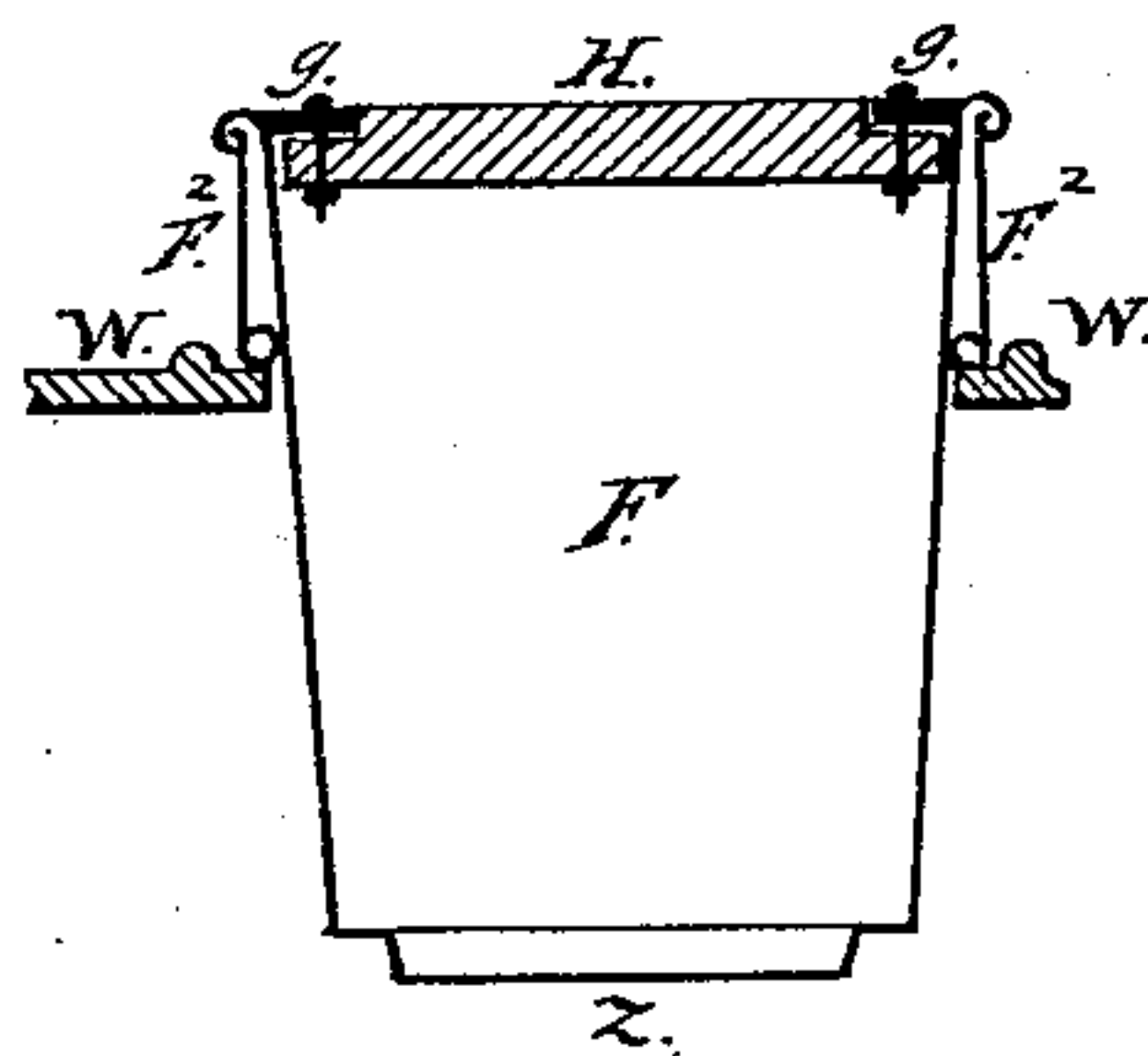
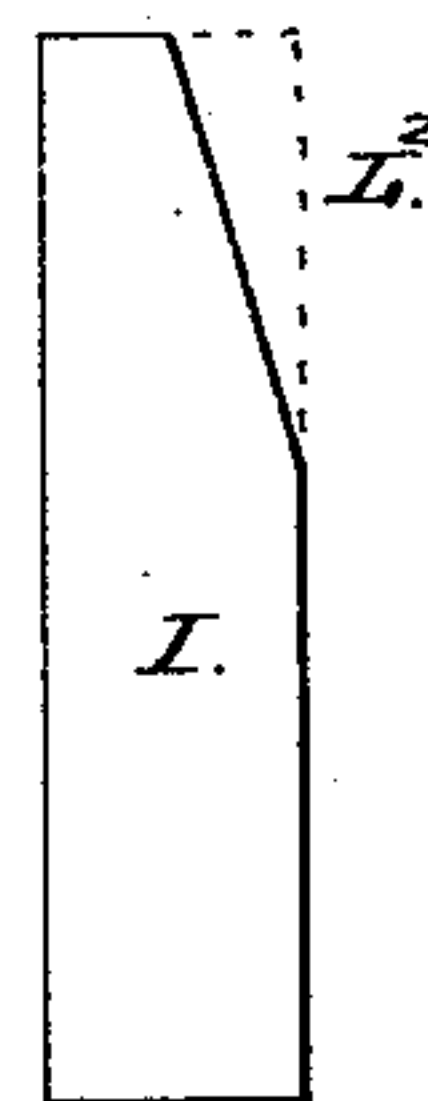


Fig. 11.



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UNITED STATES PATENT OFFICE.

DANIEL E. PARIS, OF TROY, NEW YORK.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **153,601**, dated July 28, 1874; application filed May 13, 1874.

To all whom it may concern:

Be it known that I, DANIEL E. PARIS, of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Cooking-Stoves, of which the following is a specification:

This invention relates to certain improvements in cooking-stoves, the construction of which is hereinafter fully explained, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the rear end of the cook-stove, showing the two reservoirs and the hot-closet below. Fig. 2 is a perspective view of one of the reservoirs removed from the casing. Fig. 3 is a perspective view of the hot-closet removed from the stove. Fig. 4 is a vertical cross-section, showing the reservoirs and manner of attaching the hot-closet. Fig. 5 is a perspective view of the rear part of the stove with the reservoirs and hot-closet removed, showing the interior of the casing and arrangement of flues. Fig. 6 shows the damper, which operates in the central rear flue of the stove. Fig. 7 is a vertical section of a range, showing my improved reservoir in front of it. Fig. 8 is a perspective view of Fig. 7. Fig. 9 shows a stove where the reservoir is placed on the oven end of the stove; and Fig. 10 is a vertical section of one of the reservoirs, showing the supporting-rim W and the wood-lined cover to the reservoir. Fig. 11 shows one of the back-flue strips or flue-plate that divides the flue-space in rear of the oven, and between which the winged damper opens and closes. Fig. 12 is a perspective view of the flue-damper seen again in Figs. 5 and 6.

In order to enable others skilled in the art to which my invention appertains to more fully understand the same, I will now proceed to describe the construction and operation of parts.

It will be seen that the reservoir is made in two parts, and that each kettle is provided with handles, and is removable from the stove; that the bottom has a sink or pot rim, so that the kettle may be set on the stove-top in the boiler-holes of the stove. These kettles rest on the flange or rim W of the reservoir heater or casing D, (seen in Figs. 1 and 10;) and the part that rests on said flange or rim is not the

kettle proper, but an outside jacket, F², said jacket catching the kettle itself just beneath the top flange, which, in a sheet-metal reservoir or kettle, usually consists of a wire, over which the top edge of the vessel is turned and fastened. This outside jacket, however, may catch the vessel, or be attached to it in any other way that will support it properly. I strengthen the lower edge of this jacket by a wire, around which the sheet metal of the jacket is turned and fastened. It will be seen that each of these kettles is provided with a spout, I, from which water can be poured or turned, instead of dipping it out. This feature, however, is not essential, but when the spout is used I make the ends of the casing E to tip or turn with the reservoir, as seen in Figs. 1 and 9. This part of the end casing E is attached to the stationary part E² by hinges J, and the end rim W is attached to the plate E, and made fast to it, and at or near a right angle with it, so that when the plate E tips or turns outward the plate W shall hold its same relative position to the plate E, and support the reservoir in connection with the side of the casing. There is a top division-plate, C, between the reservoirs, upon which lies the flange or rim W, and upon which the adjacent sides of the separate reservoirs are supported.

The covers to the reservoir are made of a rim, g, of cast or other metal, which holds and surrounds a cover of wood, (seen in Fig. 4,) and the arrangement of the wood cover is seen again in Fig. 10. The wood slab or block H shown in said figures is fastened to the surrounding rim g by means of bolts or rivets, and is held firmly in its place by said rim, so that the action of the steam will not affect it. The rim g must be heavy enough to hold the wood, as it will be liable to swell under the action of the steam, but it will not rust or oxidize, which is the object of using the wood cover.

The hot-closet Q is made of cast ends, P P, to which doors are hung or attached in the usual manner. The back and bottom of the closet is of sheet metal, which is strengthened at the top by the cast bar U, and at the bottom by the cast bar U². The bar U is bolted to the ends P P at the top, thus holding the

sheet iron Q to the heads P P on the back. The bottom is held by the hooks T T, which are made of malleable iron and hook to the heads P P through openings or holes in the said heads P P, at or near their bottom edges. Thus the closet is firmly held in its place. It will be seen that the closet has no top or front. The front is formed by the back of the stove and the top by the bottom of the reservoir-casing.

The closet is attached to the stove by simply sliding it in from the rear inside and between the heads E² or pendent plates of the reservoir-casing. Projecting flanges R R are cast on each of the closet-heads, as shown in Fig. 3, and these flanges rest on similar flanges S, cast on the inner side of the plates E². (Seen in Fig. 4.) The bottom of the closet is held in place by the lugs V V V, cast on the stove back or bottom plate, as seen in Fig. 5, similar hooks being formed on the closet itself for engaging or interlocking therewith.

The reservoir is heated as in my patent of September 19, 1871; or as in the patent granted to J. F. Quimby, dated October 27, 1868, No. 83,407, with this difference, in the Quimby patent the reservoir stands away from the back flues rearward, in order to form a flue in front of it and between the back flue strips. By this means two or three inches of space is lost, for the casing has to be pushed farther to the rear, making it more liable to break, and more expensive also.

In the present invention I place the reservoir close up against the back flues or flue strips, and I form the transverse flue by means of a crooked or curved damper, M. (Seen in Figs. 5 and 6, but more clearly, perhaps, in Fig. 12.)

In Fig. 11 one of the flue strips, L, is shown, and between two of these the damper M opens and closes. It is only about half its width at the top, and it gradually grows wider till it strikes the bottom of the reservoir-casing where it assumes its full width again. The part cut off is shown by dotted lines L², and the part cut off is replaced again by the flanges M² M² on the damper M, (seen in Fig. 12;) in other words, the damper M is shaped like a scoop or trough to accommodate the pipe-collar above, and to conform to it, or with it.

When the damper is so made it need not be so wide or large, and thus, when the damper is turned back, it leaves the center flue entirely unobstructed for the passage of heat, and when turned forward it allows the heat to pass from the two sides to the center for the purpose of heating the reservoir.

Two of these dampers may be used instead of one—that is, there may be one in each of the two side flues, as described in my aforesaid 1871 patent—and the effect would be similar. The only difference in effect would be to heat the reservoir less when heating the oven, because the active first heat of the downward flues would not come in contact with the res-

ervoir; but there would be little or no difference on direct draft.

Figs. 7, 8, and 9 are modifications of my said invention.

In Fig. 8 only one of the reservoirs tips or turns over, the other, although removable, does not tip over; but both of them are removable.

Having thus described my invention, what I claim as new is—

1. A reservoir casing or chamber for cooking-stoves or ranges having a portion of its wall hinged or pivoted at a suitable point to form a continuation of the casing when in its normal position, in combination with a reservoir adapted to swing outwardly with said portion for discharging its contents.

2. In combination with a hinged section or portion of a reservoir-chamber, a rim or cap resting on top of the casing for supporting the reservoir, and for holding the reservoir when said section is opened or turned outwardly.

3. In a cooking-stove, the combination of a reservoir, capable of being tilted to empty its contents, with a reservoir-casing hinged to tilt with its inclosed vessel, whereby the reservoir may be tilted without removing it from the heating-chamber which incloses it.

4. A reservoir of a cooking-stove, of two separate and distinct sections or vessels, in combination with a reservoir chamber or casing, having a top cross dividing and supporting bar, C, whereby the separate reservoirs are supported, and may be handled and removed and replaced with facility.

5. A reservoir, having its projecting portion provided with a separate jacket, F², secured to the rim of the top, and having its lower edge strengthened with a bead, in combination with the rim W of the reservoir upon which said beaded edge rests.

6. A metallic rim or cover, having a flange, g, for resting on the top edge of a reservoir of a cooking-stove, in combination with a filling of wood, H, for fitting down into said reservoir for resisting and protecting the metal rim from the oxidizing action of steam.

7. The projecting heads or plates E², provided with interior flanges or ways S S, in combination with the flanges R R of the hot-closet Q, whereby the latter is supported and held in position without fastenings.

8. The combination, in a stove constructed and organized substantially as described, of the hot-closet Q, provided with the longitudinal top bar U, secured to the cast-iron heads P P, and the transverse bottom bar U², whereby the proper strength and rigidity are imparted to the sheet-metal closet.

9. The winged damper M M², in combination with a reservoir of two separate and distinct sections or vessels, and a chamber or casing which incloses the reservoirs and the damper, substantially as and for the purposes set forth.

10. In a diving-flue cooking-stove, having a reservoir, or casing for a reservoir, in the rear thereof, the central flue strip or strips L, having a portion of their upper rear edge removed, in combination with a damper, M, constructed with sides to close or fill up the space caused by such removed portion.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of April, 1874.

DAN'L E. PARIS.

Witnesses:

W. I. LUDLOW,
ALBERT H. NORRIS.