

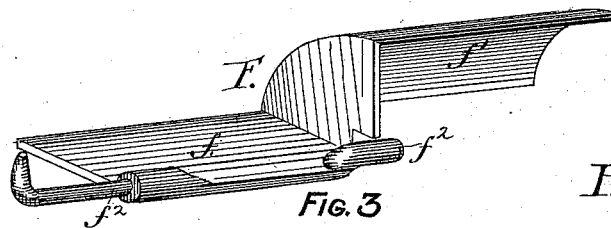
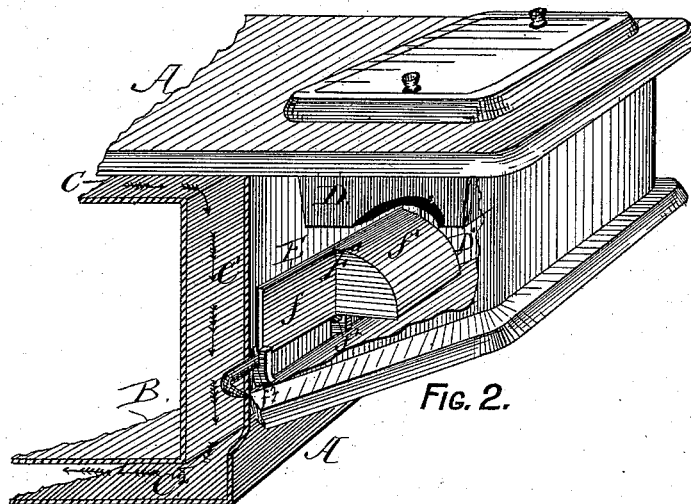
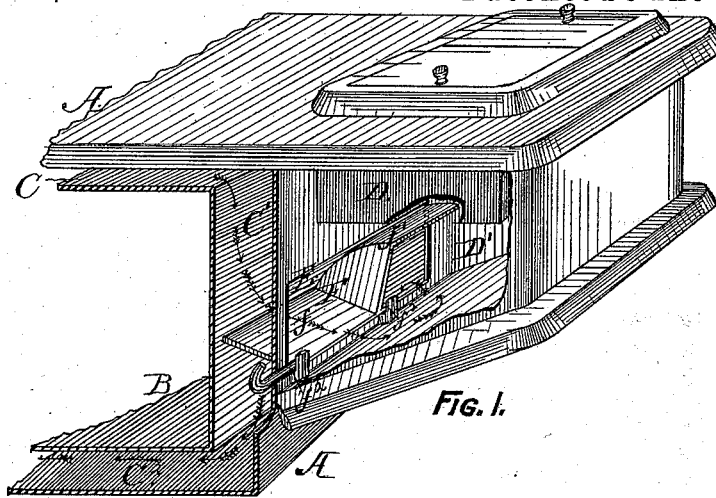
(No Model.)

C. RATHBONE.

COOK STOVE.

No. 385,135.

Patented June 26, 1888.



*Witnesses:*

J. B. Brewer,  
Capt. Amherst.

*Inventor:*

*CLARENCE RATHBONE*

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# UNITED STATES PATENT OFFICE.

CLARENCE RATHBONE, OF ALBANY, NEW YORK, ASSIGNOR TO THE RANSOM STOVE COMPANY, OF SAME PLACE.

## COOK-STOVE.

SPECIFICATION forming part of Letters Patent No. 385,135, dated June 26, 1888.

Application filed April 13, 1886. Serial No. 198,700. (No model.)

*To all whom it may concern:*

Be it known that I, CLARENCE RATHBONE, of the city and county of Albany, in the State of New York, have invented new and useful Improvements in Cook-Stoves, of which the following is a specification.

My invention relates to improvements in cook stoves or ranges having a single flue of the width of the stove at the back of the oven and provided with a reservoir for hot water.

The object of my improvements is to provide a suitable damper for the flue at the back of the oven, so that the currents of heat can be diverted from a direct downward course and forced to pass into the flue beneath the reservoir to more effectually heat the water therein, from whence they re-enter the flue at the back of the oven to continue their course around the oven.

In the accompanying drawings, which are herein referred to and form part of this specification, Figure 1 is a perspective view of part of the rear of a stove provided with my improvements, with the side plate removed to show the internal parts, the damper being turned to direct the drafts from a direct downward course; Fig. 2, a like view with the damper turned to permit the heat-currents to pass directly down the flue at the back of the oven; and Fig. 3 an enlarged and detached perspective view of my damper.

As represented in the drawings, A is the body of the stove; B, the oven; C, flue over oven; C', flue at back of oven, and C'', flue under oven; D, water-reservoir; E, opening from flue back of oven into the chamber for reservoir, and F a damper for the opening into the reservoir-chamber.

The body A of the stove may be made in any preferred form and may be provided with any desired form of fire-chamber. The flues around the oven B, but especially the one at the back of the oven, should be in the form commonly known as "sheet-flues," which are not divided by flue-strips into a series of "up-cast" and "downcast" flues.

The opening E (which communicates from the flue C' at the back of the oven into the chamber D', which contains the water-reservoir D) is made near the bottom of said reservoir-chamber and extends nearly across the width of the flue C'.

The damper F, which is a single piece, is divided lengthwise into the two sections  $f$  and  $f'$ , of about equal length, the first of which is a flat plate of sufficient width to close the height of the opening E, and when turned in the proper direction to reach diagonally across the flue C' to shut off the passage through the latter. Said plate is provided at each end with a trunnion,  $f^2$ , on which it rocks, and one of said trunnions projects through the side of the stove to form a handle by which said damper is operated. The part  $f'$  of said damper is made in the form of a segment of a cylindrical shell with its convex surface uppermost, and its concave part will form a hollow pocket, which, when the damper is turned down in the position shown in Fig. 1, will afford a free communication from the interior of the reservoir-chamber into the lower part of the flue C', and at the same time it will close the direct passage through that half of the flue C', so that the draft-currents descending through said flue will be deflected from their direct course, and, passing into the reservoir-chamber D', are carried circuitously through said chamber and re-enter the flue C' below the damper F through the opening formed by the hollow pocket  $f'$ . The course of the draft-currents, when said damper is turned in the position shown in Fig. 2, is indicated by the arrows on said figure. When the damper F is turned in the direction shown in Fig. 2, it will close the opening E and leave an unobstructed passage through the flue C', so that the draft-currents will pass directly down through said flue, as indicated by the arrows in said figure.

I claim as my invention—

In a cook-stove, the combination of a single flue, C', at the back of the oven, a reservoir-chamber, D', having an opening, E, which forms a communication between said flue and chamber, and a rolling damper, F, provided with a segmental pocket,  $f'$ , as and for the purpose herein specified.

CLARENCE RATHBONE.

Witnesses:

WM. H. LOW,  
S. B. BREWER.