2 Sheets—Sheet 1.

B. F. CLEMENT.

Doors for Cooking-Stoves.

No. 200,604. Patented Feb. 26, 1878.

FIG. 1.

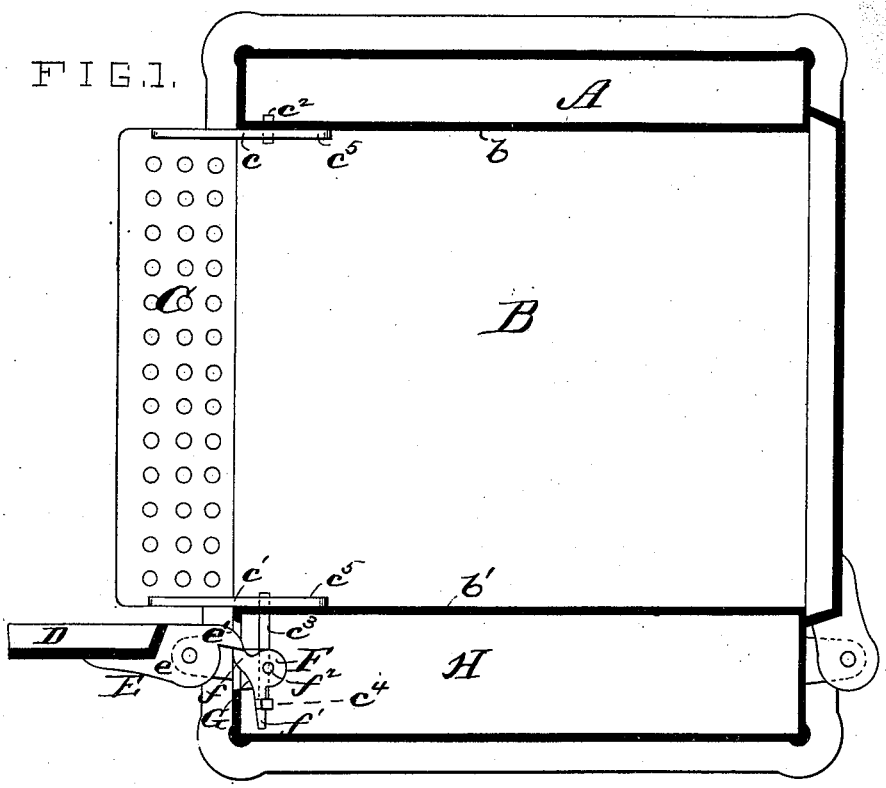


FIG. 2.

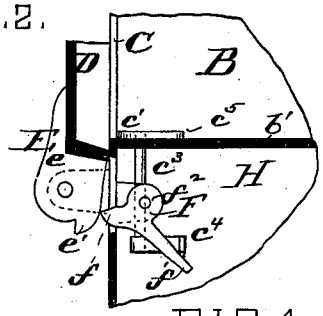


FIG. 3.

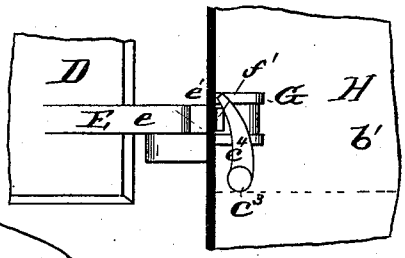
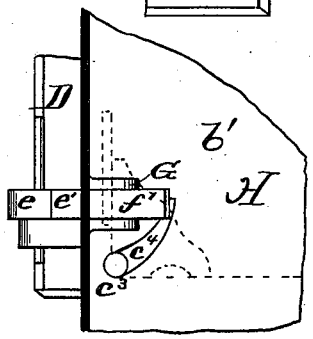


FIG. 4.



ATTEST.

Paul Bakewell

Saml. S. Boyd

INVENTOR.

B. F. Clement,

by Chas. D. Moody,

atty.

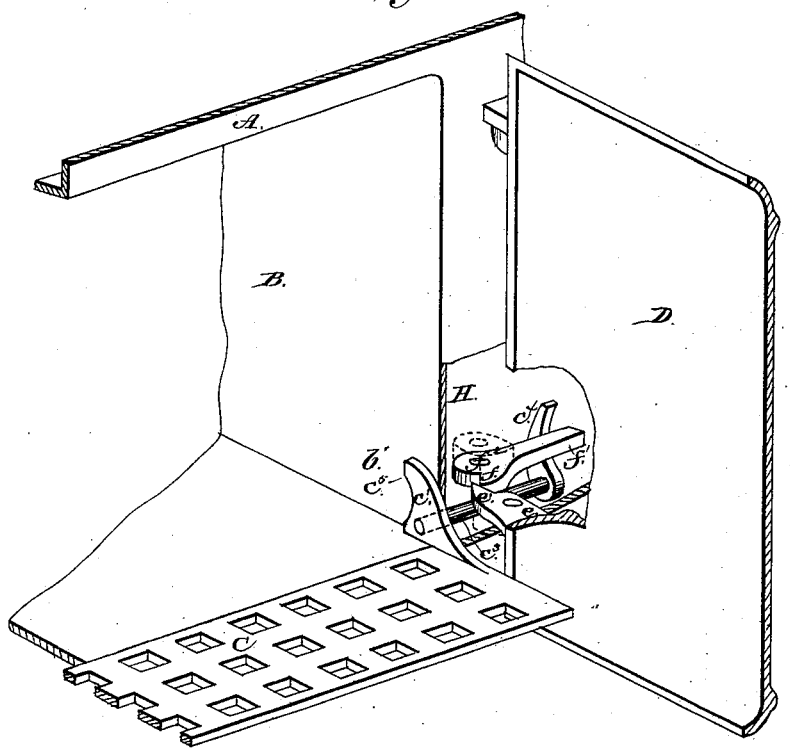
2 Sheets—Sheet 2.

B. F. CLEMENT.

Doors for Cooking-Stoves.

No. 200,604. **Patented Feb. 26, 1878.**

Fig. 5.



Attest:

Paul Bakewell
A. Deming

Inventor:

Benjamin F. Clement
by Chas. D. Moody.
atty!

UNITED STATES PATENT OFFICE.

BENJAMIN F. CLEMENT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO CHARLES H. BUCK, JR., OF SAME PLACE.

IMPROVEMENT IN DOORS FOR COOKING-STOVES.

Specification forming part of Letters Patent No. **200,604**, dated February 26, 1878; application filed January 4, 1878.

To all whom it may concern:

Be it known that I, BENJAMIN F. CLEMENT, of St. Louis, Missouri, have made a new and useful Improvement in Cooking-Stoves, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a horizontal section taken through a stove embodying the improvement, and showing the shelf let down; Fig. 2, a detail, being a horizontal section, the parts shown being as when the oven-door is closed and the shelf turned up; Fig. 3, a detail, being a vertical section, the parts shown being as when the oven-door is opened and the shelf let down; Fig. 4, a vertical section, showing the same parts as in Fig. 3, but as when the oven-door is closed; and Fig. 5, a view in perspective, showing a portion of the stove and shelf, the oven-door, and also the side plate of the stove, being partly broken away to show the mechanism for operating the shelf.

Similar letters refer to similar parts.

The present is an improvement in that class of oven-shelves that, when the oven-door is shut, are inclosed within the oven, but when the oven is opened can be or are drawn outward therefrom, forming a hearth just without the oven and preferably even with the floor thereof, upon which the utensils containing the articles being cooked can be conveniently supported as they are being passed into or withdrawn from the oven during the culinary operation.

The improvement has relation more especially to the means employed in operating the shelf.

Referring to the drawing, A represents an ordinary cooking-stove, saving as modified by the present improvement. B represents the stove-oven, and C the shelf in question. The shelf is supported by arms c c^1, having journals c^2 c^3, respectively, that turn in bearings in the front and back plates b b', respectively, of the oven, and by means of which the shelf can be turned up within the oven or let down on the outside thereof, as in Fig. 1. D represents the oven-door. That portion e of its lower hinge E that is attached to the door, is provided with an extension, e', which, in the movement of the door in closing and opening it, is caused to effect the turning up of the shelf into the oven and to regulate the letting down of the shelf from the oven, and more particularly described as follows: A lever, F, having the arms or projections f f^1, is pivoted at f^2 to a bracket, G, that is suitably supported within the flue-space H of the stove. The journal c^3 is extended through the plate b' into the flue H, and at its inner end has an arm, c^4, fastened thereto. As the door D is moved to close it the extension e' comes against the arm f of the lever F, as in Fig. 1, causing the lever to turn on its pivot, bringing the arm f^1 against and moving the arm c^4 of the journal c^3. This causes the latter to rotate and the shelf to be upturned into the oven.

The above-described movement is reversed in the letting down of the shelf. The latter is preferably balanced so as to fall outward and downward from the oven when the oven-door is opened. The shelf, however, does not fall down directly, its movement in this direction being regulated by the outward movement of the door. As the door opens the turning of the shelf on its journals causes the arm c^4 to bear against the arm f^1; but the lever F can turn only with the hinge E; hence the letting down of the shelf is controlled and regulated by the movement of the door, operating through the hinge E, lever F, and arm c^4. The engagement of the hinge and lever is similar to that of two spur-wheels, and that of the lever and arm c^4 to the engagement of bevel-gear wheels. The arms c c^1 of the shelf are preferably extended at c^5 c^5, so as to strike the oven-floor when the shelf is upturned, and to keep the shelf from falling too far inward into the oven.

I claim—

1. The combination, in a cooking-stove, of the extension e', lever F, arm c^4, journal c^3, and shelf C, substantially as described.

2. The combination, in a cooking-stove, of the lever F, arm c^4, journal c^3, and shelf C, substantially as described.

Witness my hand.

B. F. CLEMENT.

Witnesses:

CHAS. D. MOODY,

SAML. S. BOYD.