

(No Model.)

J. SCHILL.  
DOOR FOR STOVE OVENS.

No. 544,773.

Patented Aug. 20, 1895.

Fig. 1.

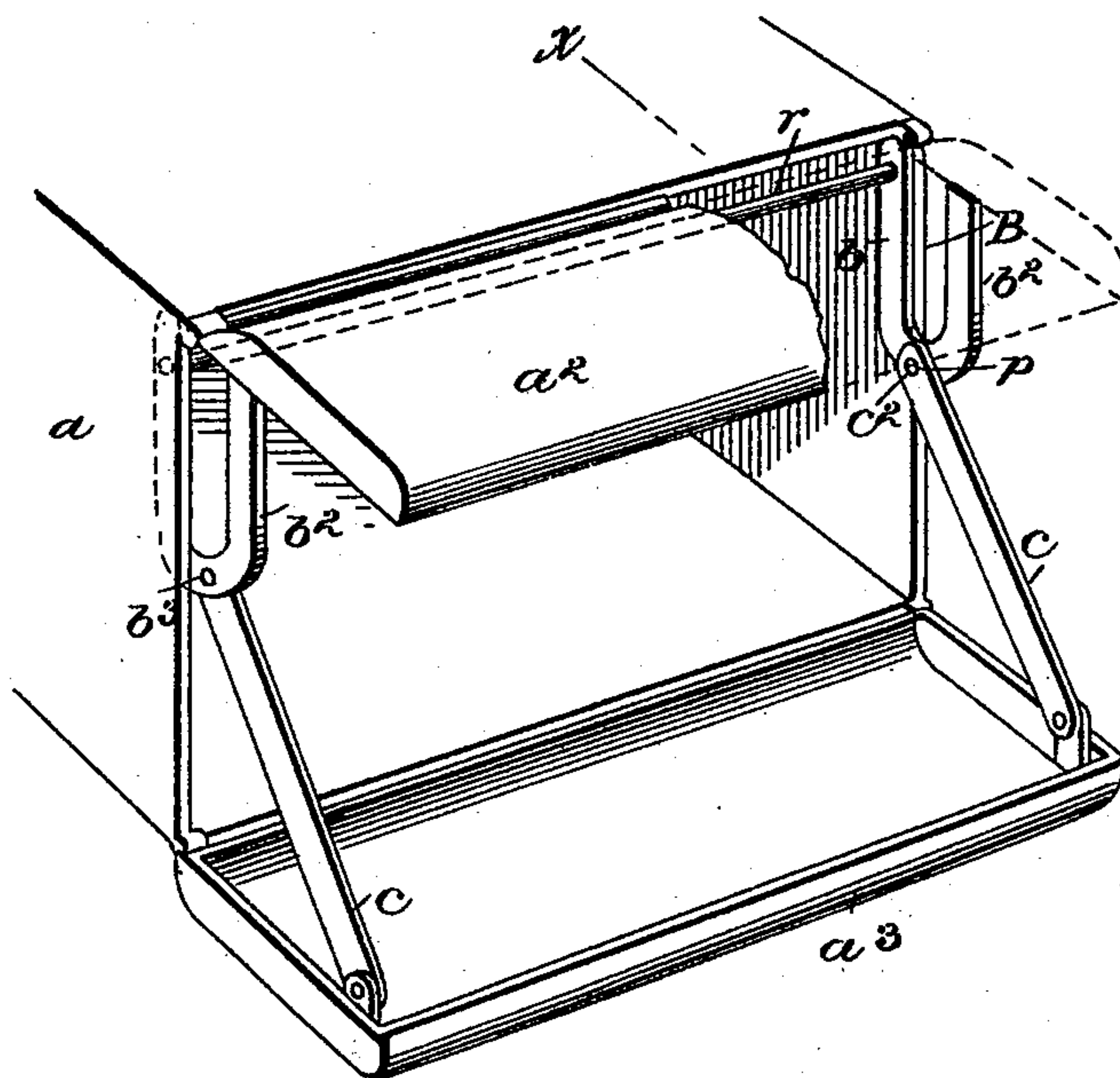


Fig. 2.

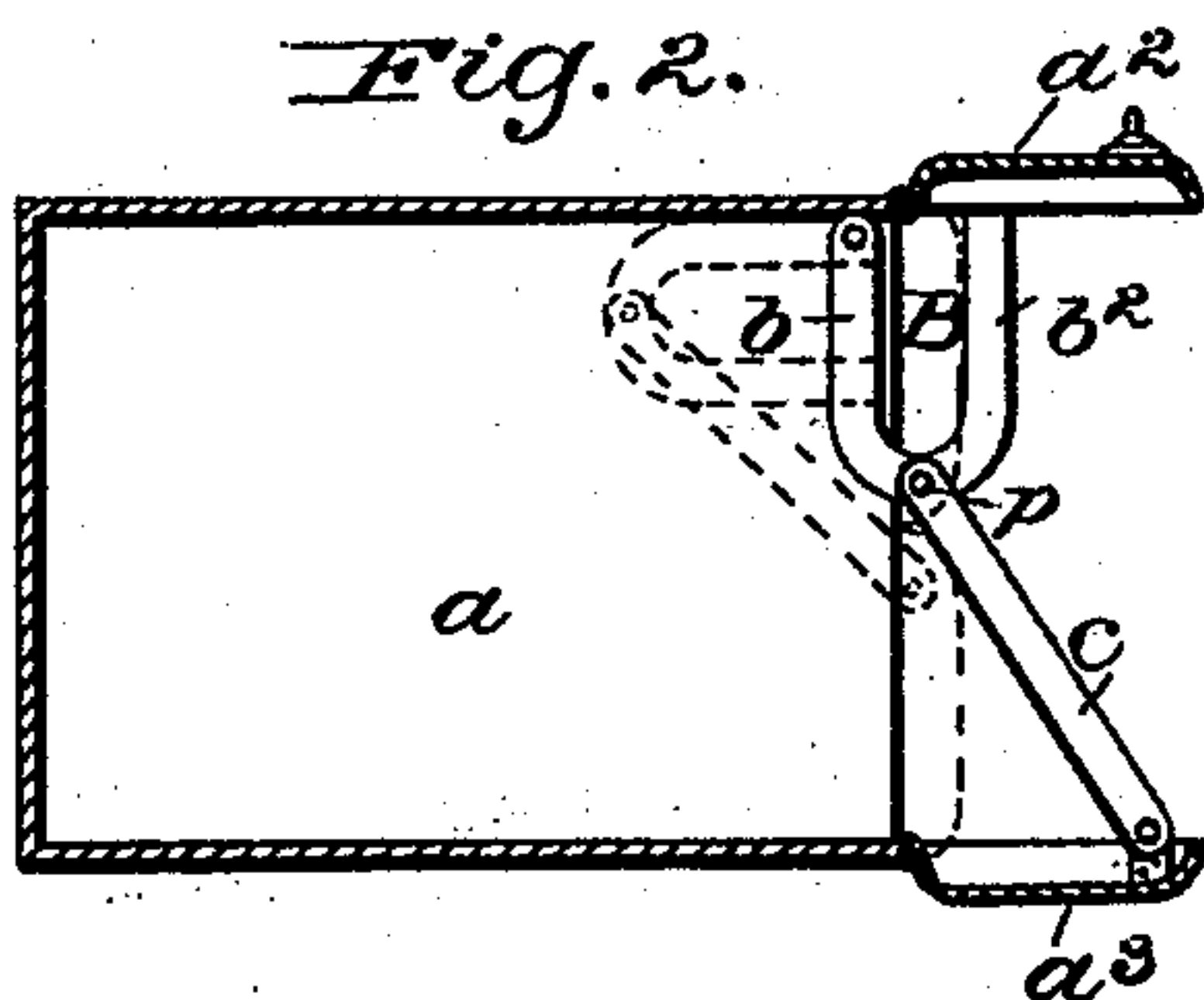
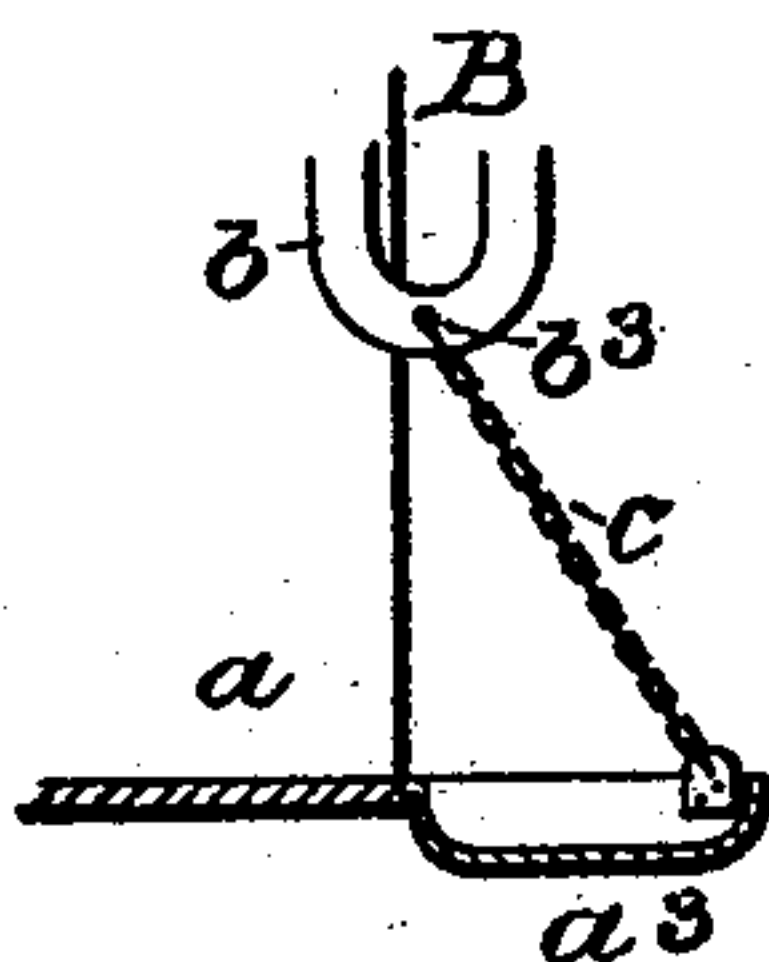


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOSEPH SCHILL, OF CRESTLINE, OHIO.

## DOOR FOR STOVE-OVENS.

SPECIFICATION forming part of Letters Patent No. 544,773, dated August 20, 1895.

Application filed June 19, 1895. Serial No. 553,265. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH SCHILL, a citizen of the United States, and a resident of the city of Crestline, in the county of Crawford, in the State of Ohio, have invented a new and useful Door for Stove-Ovens, of which the following is a correct description.

The object of the invention is to provide in that class of stove or range oven doors which are formed in halves or sections of nearly equal dimensions, which meet edge to edge in a horizontal plane to close the front of the oven, and which are sometimes termed "twin doors," a new and useful means for producing simultaneously opposite movement of such doors or half-doors and for insuring retention of the same in position when the movement shall have been completed.

The invention consists in the application within an oven of a U-shaped or horseshoe lever in such manner that one extremity of the U or horseshoe shall be pivoted within the oven, while the opposite member shall rest in contact with the upper member of a two-part door, and while the intermediate portion or bend of the U or horseshoe shall through a suitable connection therewith operate to support the lower door.

The invention consists, further, in various novel elements or combinations of elements in or in connection with an oven and the door or doors thereof, as will first be described with reference to the construction and operation of the same, and then specifically and distinctly claimed.

In the accompanying drawings, which constitute a part of this specification, Figure 1 represents a view in elevation showing a portion of a stove with the lower door or half-door in its open or lowered position, a fragment of the upper door or half-door having been detached to show the interior more clearly. Fig. 2 represents a view in vertical section from front to rear of the oven, as in the line  $xx$  of Fig. 1. Fig. 3 is a detail showing a modification, which will be described.

As will be understood from the drawings, the inner member  $b$  of the U-shaped or horseshoe lever B is by its upper extremity rigidly secured upon a rod or journal  $r$ , which by its slightly-projecting ends moves freely in bear-

ings which are formed in the upper front extremity of each of the two side walls of the oven  $a$ . At or near the middle of the bend of the lever B is provided a perforation  $b^3$ , which, in connection with a like perforation  $c^2$  in a connecting and supporting arm  $c$ , receives a pin or rivet  $p$ . The opposite end of the arm  $c$  being then loosely connected to the lower half-door  $a^3$ , the extent of the downward movement of such door is limited, and the door, together with any culinary implements or other articles which may be placed upon it, is securely supported. When the lower half-door is being moved into this position, the lower or outer member  $b^2$  of the lever B is in a corresponding degree moved outwardly and upwardly, pushing before it the half-door  $a^2$  until it is brought into its horizontal position, as shown. In some instances a connecting-chain, instead of a connecting-arm, may, as in Fig. 3, be employed between the lever and the half-door  $a^3$ , although for some reasons the rigid connection may be preferable; and when the improvement is applied in ovens of inconsiderable dimensions the use of the rod  $r$  may in some cases be dispensed with, a single lever and a single connecting-arm being sufficient to enable the parts to be operated with satisfactory results.

It will be understood that the two half-doors and their connections are so nearly counter-balanced that a very slight closing pressure or a very slight opening pressure upon either the upper or the lower half-door will be sufficient to move the two sections simultaneously into place; and that whether the half-doors be open or closed they will remain in such adjustment until some extraneous force has been applied to move them therefrom.

The invention having been thus described, what is claimed is—

1. An oven which is provided with oppositely-movable half-doors or door-sections which in closing meet edge-to-edge in a horizontal plane, and which is provided also with a U-shaped or horse-shoe lever which by one extremity is pivotally-mounted in an upper front corner of the oven,—which by its opposite extremity rests in unattached contact with the upper half-door or section,—and



which in the middle portion of the **U** is pivoted to a connection the opposite extremity of which is freely connected to the lower door.

2. The combination with an oven the front of which is provided with horizontally-hinged oppositely-moving half-doors or door-sections; of a **U**-shaped or horse-shoe lever which by the extremity of one arm is pivoted in an upper front corner of a side wall of the oven,—which by the outer extremity of the opposite arm of the **U** or horse-shoe, engages in supporting and elevating contact the inner surface of the upper half-door or section,—and which by its bend or middle portion, is provided with a connection which extends to and supports the lower half-door or section.

3. An oven which is provided with oppositely-movable half-doors or door-sections which in closing meet edge-to-edge in a horizontal plane; and which is provided also with duplicate interconnected **U**-shaped or horse-shoe levers which by one extremity are pivotally mounted, each in an upper front corner of the oven,—which by their opposite extremity rest in unattached contact with the inner face of the upper half-door or section,—and which in the middle portion of the **U** or horse-shoe, receive a connection the opposite extremity of which is freely connected to the lower door of the oven.

4. The combination with an oven which has an upper half-door and a lower half-door which move in opposite directions, and which in closing meet in a horizontal line; of duplicate horse-shoe or **U**-shaped levers which by one arm of the levers are pivoted within the oven, which by the opposite arm of the levers engage the upper half-door,—to open the same or to permit it to close,—and which at their intermediate, curved portion receive a connection the opposite extremity of which is supportingly connected to the lower door of the oven.

5. The combination with the oven *a*, of the half-doors *a*<sup>2</sup> and *a*<sup>3</sup>, hinged respectively at the upper and at the lower extremity of the oven front; the rod *r* having bearings in the side-walls of the oven, as described; the levers *b*, *b*, rigidly mounted upon the body of the rod, and resting in contact with the upper half-door; and the connection *c*, between the mid-portion of the lever and the lower half-door.

In testimony whereof I have hereunto affixed my signature this 8th day of June, 1895.

JOSEPH SCHILL.

Witnesses:

JOHN SCHILL,  
PETER SCHILL.