(No Model.)

A. B. ALTMILLER.

PORTABLE OVEN FOR GAS AND OTHER STOVES.

No. 343,419. Patented June 8, 1886.

Fig: 1.

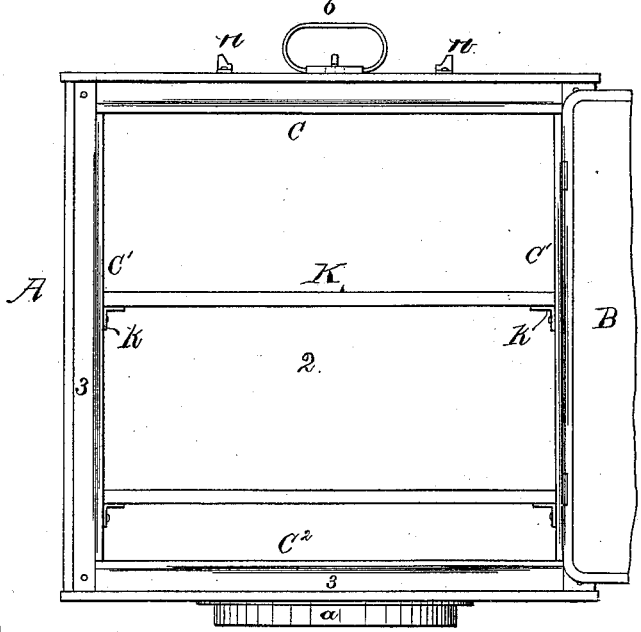


Fig: 4

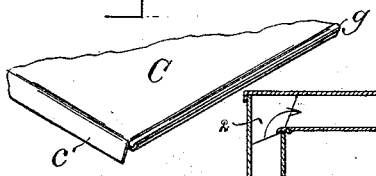


Fig: 2.

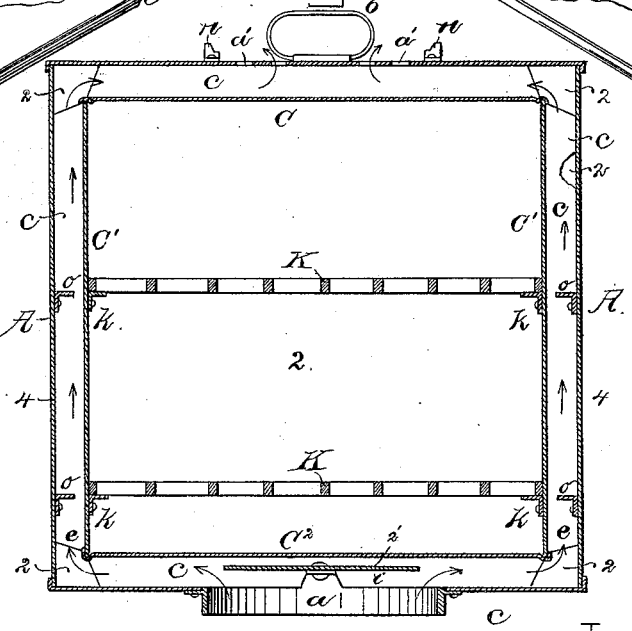
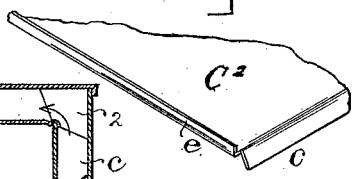


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

AUGUST B. ALTMILLER, OF EAST CAMBRIDGE, MASSACHUSETTS.

PORTABLE OVEN FOR GAS AND OTHER STOVES.

SPECIFICATION forming part of Letters Patent No. 343,419, dated June 8, 1886.

Application filed June 18, 1885. Serial No. 169,033. (No model.)

To all whom it may concern:

Be it known that I, AUGUST B. ALTMILLER, of East Cambridge, county of Middlesex, State of Massachusetts, have invented an Improvement in Portable Ovens for Gas and other Stoves, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Heretofore portable ovens having an inclosed space between the casing and the inner walls of the oven for the passage and circulation of flame and heat, have had their inner walls permanently united by riveting or otherwise, thus adding to their cost, and so, also, whenever the said inner walls have become worn or useless, the oven has usually been discarded.

This invention has for its object the production of a novel portable oven of the class mentioned, wherein the inner walls of the chamber or outer casing are made and applied therein separately without riveting, so that the same may be readily removed—one or more of them—and be replaced by new walls whenever the original walls become worn or damaged; or, if desired, all the said inner walls may be removed, and the shelves with which the oven is provided, instead of resting upon brackets attached to the inner walls, may be supported by brackets secured to the sides of the casing.

To these ends my invention consists, primarily, of a portable oven composed of a casing and inner walls forming flues for the circulation of heat or flame therein, the said inner walls being independent of one another, held loosely in and being adapted to be readily removed from the casing, substantially as will be hereinafter fully described, and particularly pointed out in the claims.

My invention consists further of certain details of construction, as will be fully set forth.

Figure 1 is a front elevation of a portable oven containing my invention with the door thrown back to disclose the interior of the oven, and partially broken off; Fig. 2, a transverse vertical section of Fig. 1; Fig. 3, a perspective view of one end of the lowest inner wall or plate inclosing the air-space at the lower part of the oven proper, and serving as the bottom thereof, and Fig. 4 a like view of one edge of the upper plate.

The bottom of the outer casing, A, has an attached metal collar, *a*, for the entrance of heat, and the top of the oven is provided with exit-orifices *a'*. The door is marked B, and the lift *b*. These parts are all of usual and preferred construction. The inner plates, which I term the "inner walls," for convenience, C C' C^2 extend around within the casing A, so as to provide flues for the circulation of heat between said plates and casing around the two sides and the top and bottom of the oven, the front of said oven being closed by the door B, which may be suitably hinged to the casing, the doorway being large enough to admit of the ready removal of the inner walls. The back 2 of the casing is not covered by an inner plate or wall. The said plates or inner walls, C C' C^2, four in number, the facing 3, and the back 2 of the casing form all the walls of the flues.

The plates C C' C^2 are preferably of sheet metal, rectangular and flat, turned down or flanged at *c* at two of their edges, the said flanges being a little less than a right angle, to stand obliquely therefrom, so that when a plate substantially of the depth of the casing is fitted into the said casing the turned-down flanges *c* will act as springs to press against the facing 3 and back 2 of the casing, to hold the plate firmly, though removably, in said casing. The width of the flanges *c* governs the area of the flue-space. Besides having the flanges *c* at two of its edges or at the ends, the bottom plate, C^2, is provided at its remaining edges with upturned portions or projections *e*, while the top plate, C, is provided with grooves *g*, formed in the remaining two edges of that plate, and the side plates, C', which form vertical inner walls of the oven, may have their two adjacent side edges turned or bent over closely, to strengthen them and form edges when all the plates are fitted into the casing. The top edges of the vertical inner walls or plates, C', fit into the grooves *g* of the top plate, C, and the like edges at the bottoms of the plates C' abut against the projections *e* of the bottom plate, C^2, to limit the movement of said plates C' with relation to the walls of the casing, the said projections *e* also preventing the entrance of smoke or gas into the oven therethrough.

A deflector, *i*, is attached to the casing above

the collar *a*, to deflect the entering heat or gas to either side thereof and prevent the bottom plate, C^2, from being subjected to intense heat.

The interior of the oven is provided with brackets *k*, and supported thereon are open-work or grate shelves K, for the reception of baking-pans or other cooking utensils, while at points about in line with the brackets *k* certain other brackets, *o*, are secured to the casing.

The brackets *o* are provided to support the shelves K when it is desired to remove or dispense with the inner walls, and to provide an oven without flues. To this end the shelves K are of greater length than width, so that upon withdrawing said shelves from the oven and removing the inner walls the former may be replaced in the oven in such manner that the ends of the shelves corresponding with the width thereof will rest on the brackets *o*, while the sides become the front and back of the shelves. Rests *n* are fastened to the top of the casing A, about the exits *a'*, to support a suitable metallic holder or other vessel (not shown) above said exits.

I claim—

1. In an oven, an outer casing provided with a door and doorway large enough to permit the removal of the inner walls, and with orifices for the entrance and exit of heat or gas, combined with inner walls, C C' C' C^2, to form flues extending around the casing, the said inner walls being separable from one another, and adapted to be readily removed from the casing, substantially as described.

2. In an oven, a casing, A, provided with a door and gas or heat induction and eduction orifices, combined with the removable walls or plates C C' C' C^2, having the flanges *c* bent out from the same to engage the casing to support or stay said plates within the casing, substantially as described.

3. The casing A, having a door and induction and eduction orifices, as described, combined with the plates C C' C^2, provided with the oblique flanges *c*, the plate C^2, provided with the projections *e*, the plate C, having the grooves *g*, and the plates C', provided with the turned-over edges, substantially as described.

4. The casing A, having a door and induction and eduction orifices, and provided with the brackets *o*, the inner walls, C C' C^2, the attached brackets, and the inclosed passage 4, combined with the shelves K, being of greater length than width, and adapted to rest upon the brackets *k* or *o*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUST B. ALTMILLER.

Witnesses:
B. J. NOYES,
M. C. VEAZIE.