

(No Model.)

W. H. DAHMANN.

PORTABLE OVEN FOR GAS AND OIL STOVES.

No. 343,231.

Patented June 8, 1886.

Fig. 1.

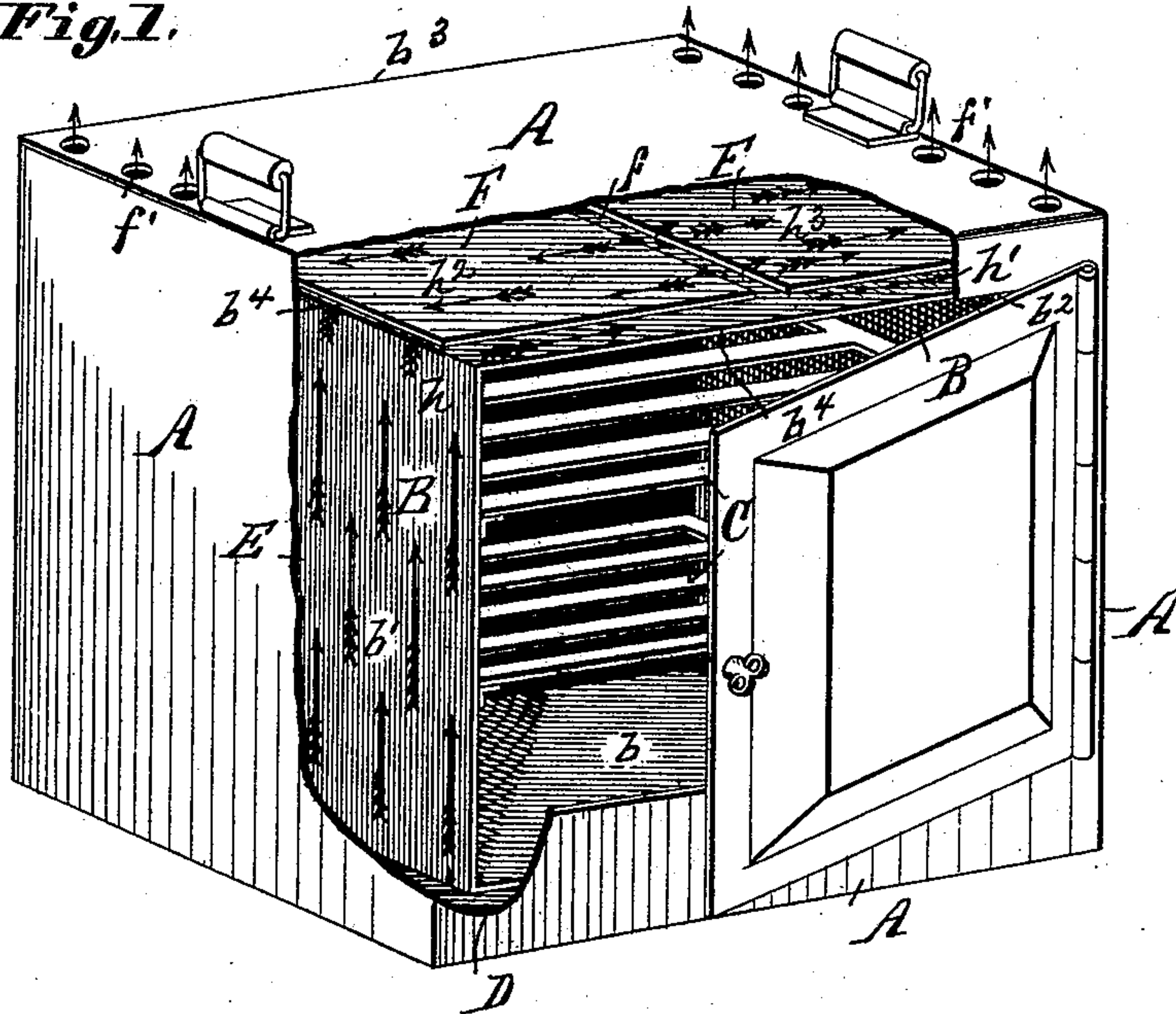
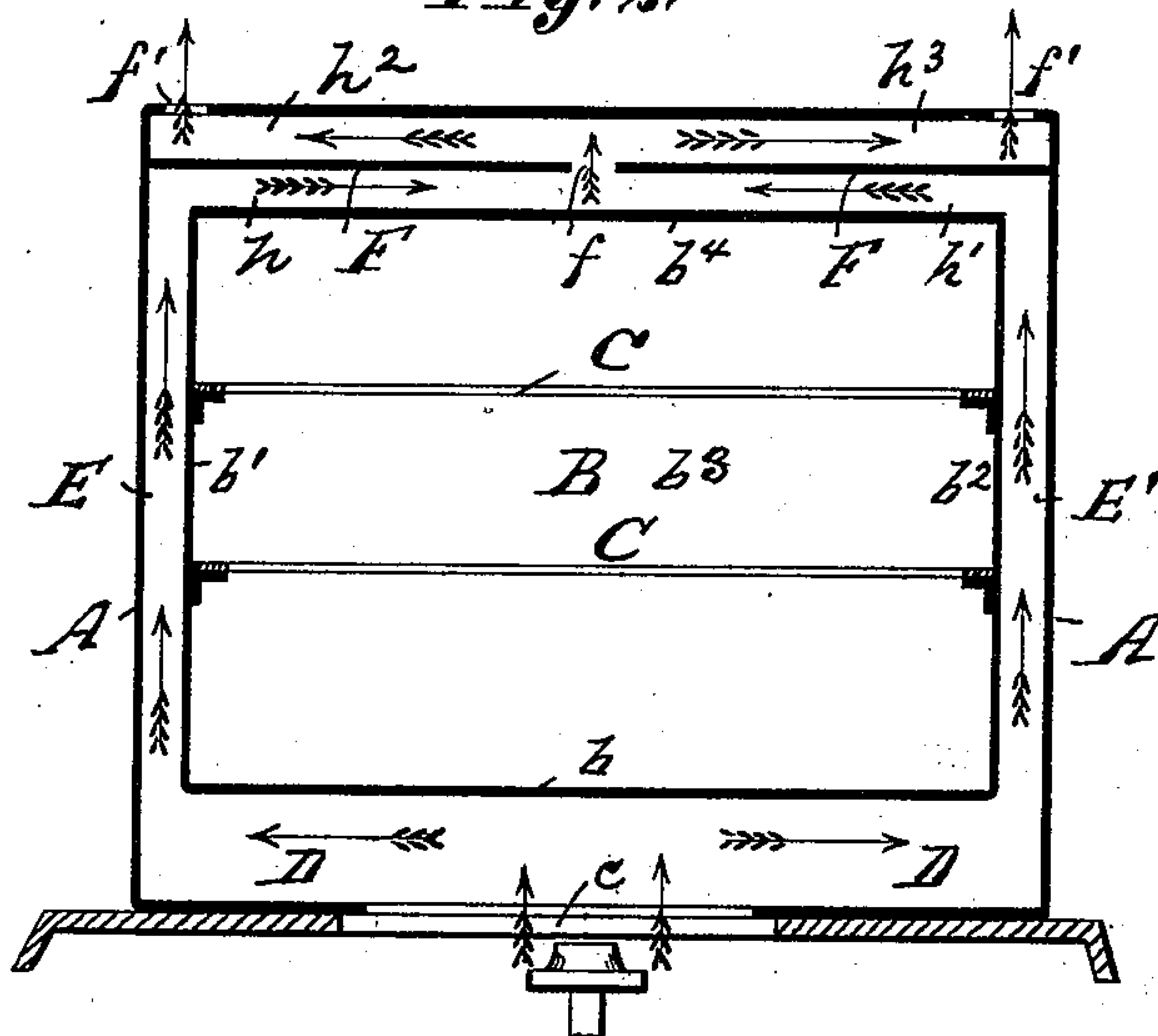


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. DAHMANN, OF ST. LOUIS, MISSOURI.

PORTABLE OVEN FOR GAS AND OIL STOVES.

SPECIFICATION forming part of Letters Patent No. 343,231, dated June 8, 1886.

Application filed March 30, 1885. Serial No. 160,660. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DAHMANN, a citizen of the United States, residing at St. Louis and State of Missouri, have invented a new and useful Improved Portable Oven for Gas and Oil Stoves, of which the following is a specification.

This invention is an improved portable oven specially designed to be applied to and used for oil and gas stoves; and the objects of my improvements are to achieve a more equal circulation and distribution of heat to surround the bottom, sides, and top of the oven proper, to prevent the fumes of the gas coming in contact with the inside of the oven, and otherwise to render the use of the oven for baking, broiling, or roasting purposes free from deleterious flavors, and the disadvantages arising from an unequal heating effect. I achieve these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved oven, with portions of the outer casing broken away to better illustrate the interior construction. Fig. 2 is a longitudinal sectional elevation.

A is the outer casing. B is the oven proper. The oven B consists of the bottom b , side walls, b' b^2 , back wall, b^3 , (which is at same time the back of casing A,) and the top b^4 . (See Figs. 1 and 2.) Otherwise the oven is left open in front, has shelvings C, and adapted to serve for the ordinary culinary purposes, in manner usual. It will be noted that the inside of the oven is virtually inclosed by the said bottom, side, back, and top walls, the object being to prevent as far as possible the direct contact of the heat or gases with the meats, bread, biscuits, &c.

The heat derived from the gas, vapor, or oil stove is caused to pass up the opening e , made in the bottom of the casing; thence is caused to circulate from the bottom flue, D, up the respective side flues, E E'; thence to the top flue or over the top of the oven in the following novel and improved manner: I provide the top portion with a false top or partition, F, having a passage-way or central opening, f , as shown. The object of this false top or partition is to prevent the too rapid escape of the heat at the top and cause the heat to be as equal at the top as it is at the bottom, and otherwise to achieve a more perfect and equal distribution of the heat to surround the oven.

To accomplish these purposes I arrange the partition F between the top of the outer casing, A, and the top of the oven B, and thus subdivide the top flue to consist of the reverse-acting flues h h' (under the said partition) and h^2 h^3 , above the said partition. (See Figs. 1 and 2.) This arrangement of flues produces the effect of reversing the circulation and distribution of the heat in the manner clearly shown by the course of the arrows. (See Figs. 1 and 2.) More specifically stated, the heat from the bottom and coming up the opposite side flues, E E', is first caused to pass under the partition, thence through the central opening, f , next pass in the reverse directions above the partition, and finally escape out of the perforations or openings f' , as shown. By this construction and arrangement of parts above the top of the oven the heat at the bottom, usually the most excessive, is equalized the better with the heat at the top portion of the oven, and otherwise the heating effect is rendered more uniform.

In Fig. 3 I show a portable oven for the same purposes; but the partition F is left away, and the top flue has its outlet f' located in the center of the top of the casing. The oven B remains closed at the top, sides, back, and bottom; but the circulation of heat is simply from the bottom and side flues upward into the top flue, and meeting in the center portion thereof finds its only escape out of the central openings, as shown.

What I claim is—

The herein-described oven, having the exterior casing, A, provided with the opening e in its lower plate, to receive heat from any proper source, and the openings f' f' in its top plate, near the edges thereof, for the escape of smoke and products of combustion, the interior casing, B, provided on its interior with the removable shelves C, and having the flue D between its bottom and the bottom of the casing A, the flues E E' between its sides and the sides of said casing, and the flues h h' h^2 h^3 between its top and the top of said casing, and the plate F, provided with a central opening and forming the flues h h' h^2 h^3 , with the tops of the casings A and B, substantially as specified.

WILLIAM H. DAHMANN.

Witnesses:

WILLIAM W. HERTHEL,
JOHN W. HERTHEL.