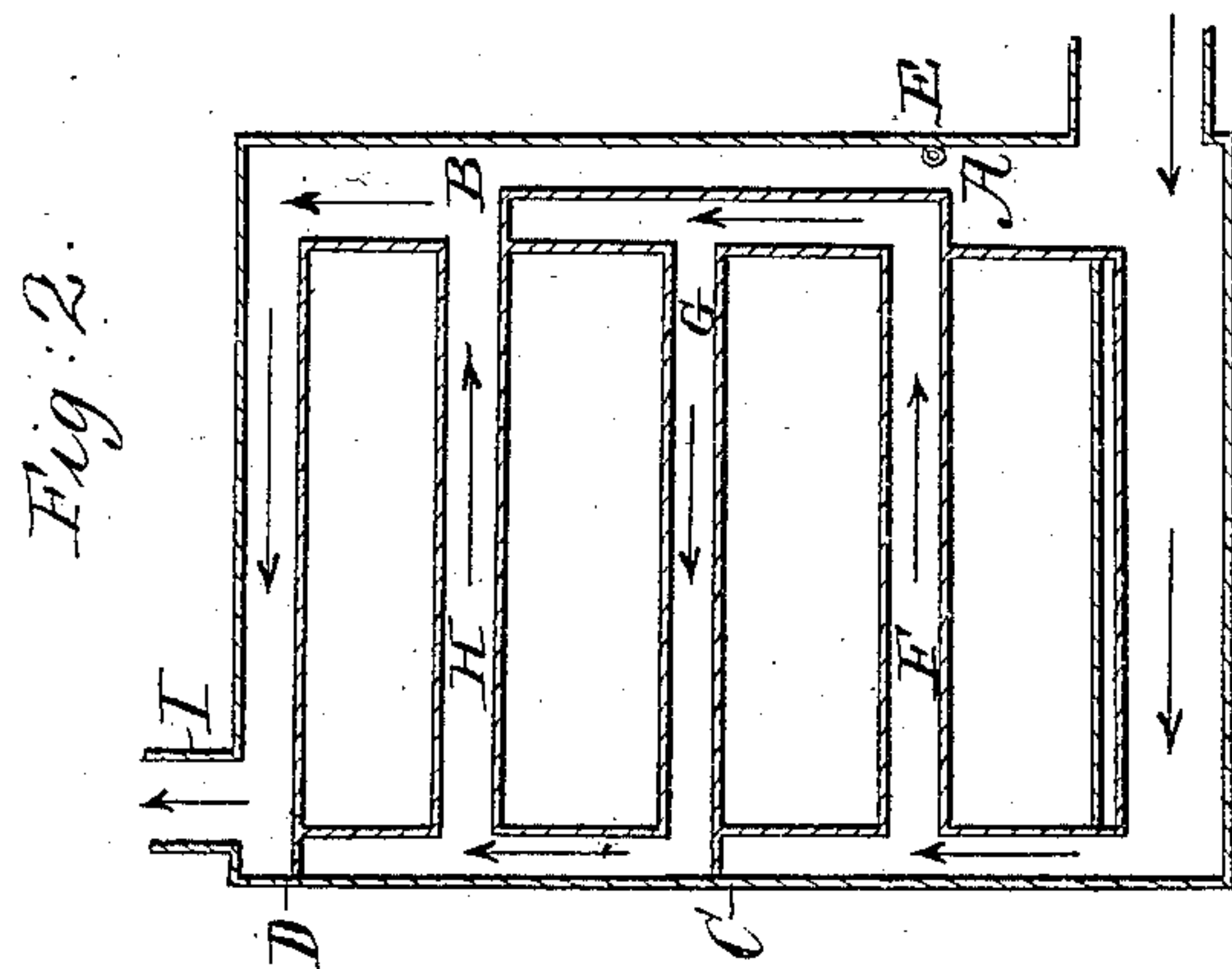
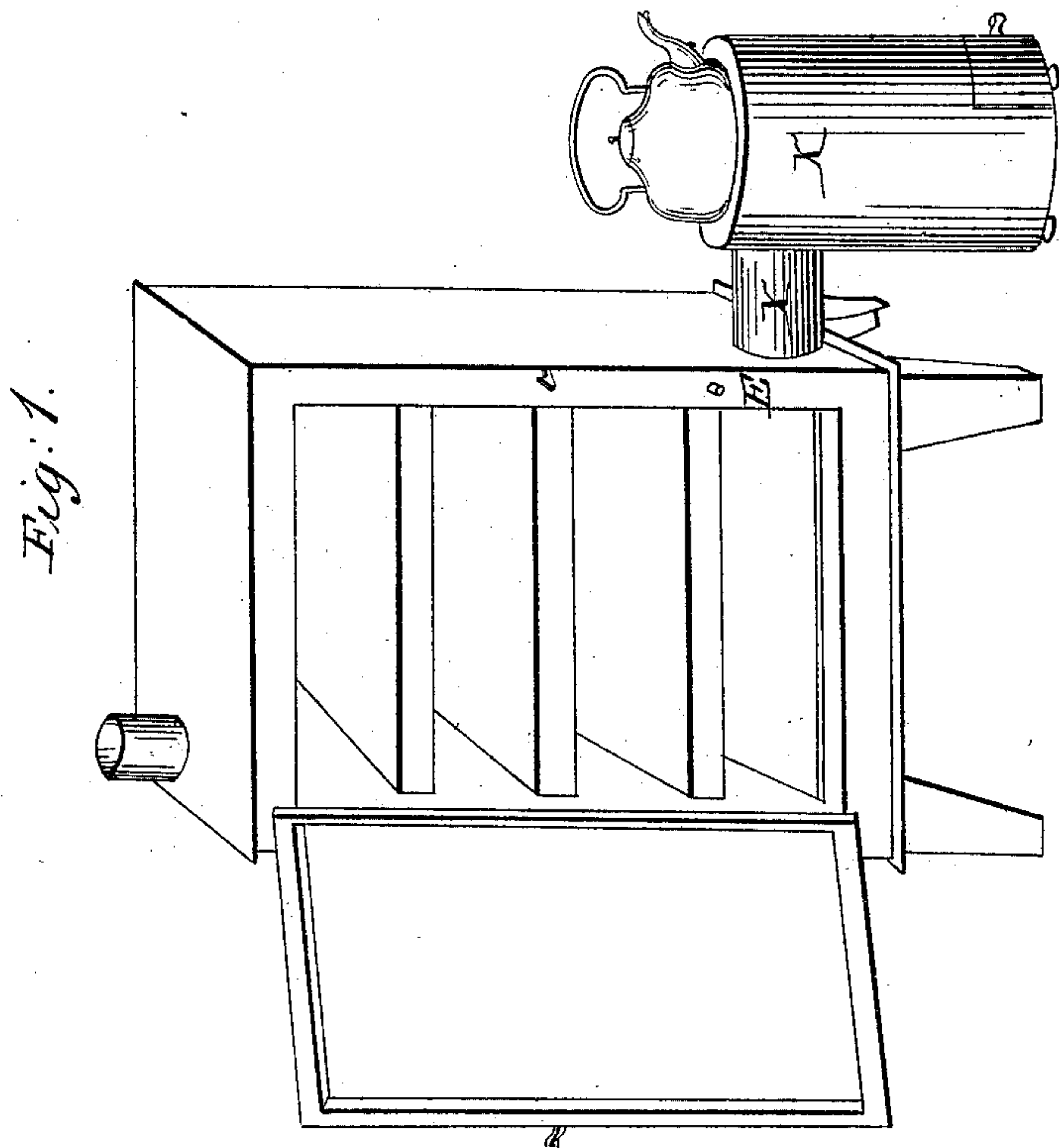


T. B. CURTIS.

Domestic Oven.

No. 1,201.

Patented June 27, 1839.



UNITED STATES PATENT OFFICE.

THADDEUS B. CURTIS, OF NEW HAVEN, CONNECTICUT.

PORTABLE OVEN.

Specification of Letters Patent No. 1,201, dated June 27, 1839.

To all whom it may concern:

Be it known that I, THADDEUS B. CURTIS, of New Haven, in the county of New Haven and State of Connecticut, a native citizen
5 of said State, have invented a new, improved, and useful portable oven for baking meat, bread, or other substances by attaching the same to a common portable furnace or to the discharging-pipe of any stove.

10 The principle of my improved oven is to conduct the heat and fumes from the chamber of combustion, not only in the usual manner around the oven in the space between the plates, but also to conduct them
15 through the shelves made double and hollow for that purpose, thereby diffusing the heat more uniformly and more intensely, when required than is, or can be done, by any portable oven now in use.

20 To enable others skilled in the art to make and use my invention, I describe the same as follows:

My improved portable oven consists of an outer and inner case, made of plates, in
25 the usual manner, generally of sheet iron, but may be of cast iron or tin, with hollow shelves of the same material. The inner case for ordinary-sized ovens is about $2\frac{1}{2}$ feet high, $1\frac{1}{2}$ feet deep, and one foot wide,
30 closed by a double plate door in common form. This inner case is surrounded on all sides except the door by an outward case, standing on legs about six inches high. The space between the plates at the bottom
35 of the oven, and on the side next the furnace is about three inches; on the other sides and on the top one and one half inches. The inner case or oven proper is divided usually into 4 apartments by shelves. The lower
40 shelf is a single plate raised one inch from the bottom to prevent a burning heat. The three other shelves are made double and hollow by two plates one and a half inches apart, closed in front and rear thus forming flat pipes opening at both ends into the
45 space between the cases, a space of six inches being left between the shelves, as seen in the accompanying drawings Figs. 1 and 2.

50 The space between the outer and inner cases is divided by partitions in the following manner: The space on the side next to

the furnace is divided in the center by a perpendicular portion extending from the bottom of the second shelf to the bottom of the top shelf, and the bottom of those shelves is
55 extended to the said partition as seen in Fig. 2 from A to B. Cross partitions are also formed in the opposite side of the oven by extending the bottom of the third shelf across the space as seen at C, and the top of
60 the inner case as seen at D. A movable valve, is also placed across the space at E, to control and regulate the heat.

The operation is as follows: The valve E, being closed, the fumes from the chamber
65 of combustion are lighted in at the bottom, between the outer and inner plates, are stopped by the valve E from ascending on the side next the furnace, and forced around under the bottom of the oven, and being
70 stopped by the partition at 6 are forced between the plates of the shelf F, and are thence conducted by the partition in the center of the space next the furnace up that side till checked by the partition B, are forced
75 between the plates of the shelf G, and ascending again on the opposite side till checked by the partition D are forced through between the plates of the top shelf
80 H, and thence up the end and over the top of the upper division to the discharging pipe T, the arrows in Fig. 2 exhibiting the course of the fumes as above stated.

The door is made double by two plates one inch apart made in usual form. The
85 back side of the oven is also double and may be made into a door in the same manner. The shelves should not extend to the door or to the rear of the oven by the space of two inches, that the heat of the oven may freely
90 diffuse itself and produce a uniformity of heat in all parts.

This improved oven may be attached to any stove or furnace having a suitable pipe to conduct the fumes, into the space below
95 the bottom of the oven proper, as seen Fig. 1.

Ovens may be made of larger or less size and with more or less shelves, than the one described, and for pies or cakes a single
100 plate or grate, movable and resting on ledges when in place, may be inserted in each di-

vision between the double shelves when occasion may require.

What I claim as my invention and improvement is—

- 5 The hollow shelves as specified, in combination with a double cased portable oven, so constructed and combined as to force the heated fumes to pass through the shelves

substantially in the manner specified above, and therefor I solicit Letters Patent. 10
New Haven, Aug. 21, 1838.

THADDEUS B. CURTIS.

Witnesses:

SIMEON BALDWIN,
ROGER S. BALDWIN.