

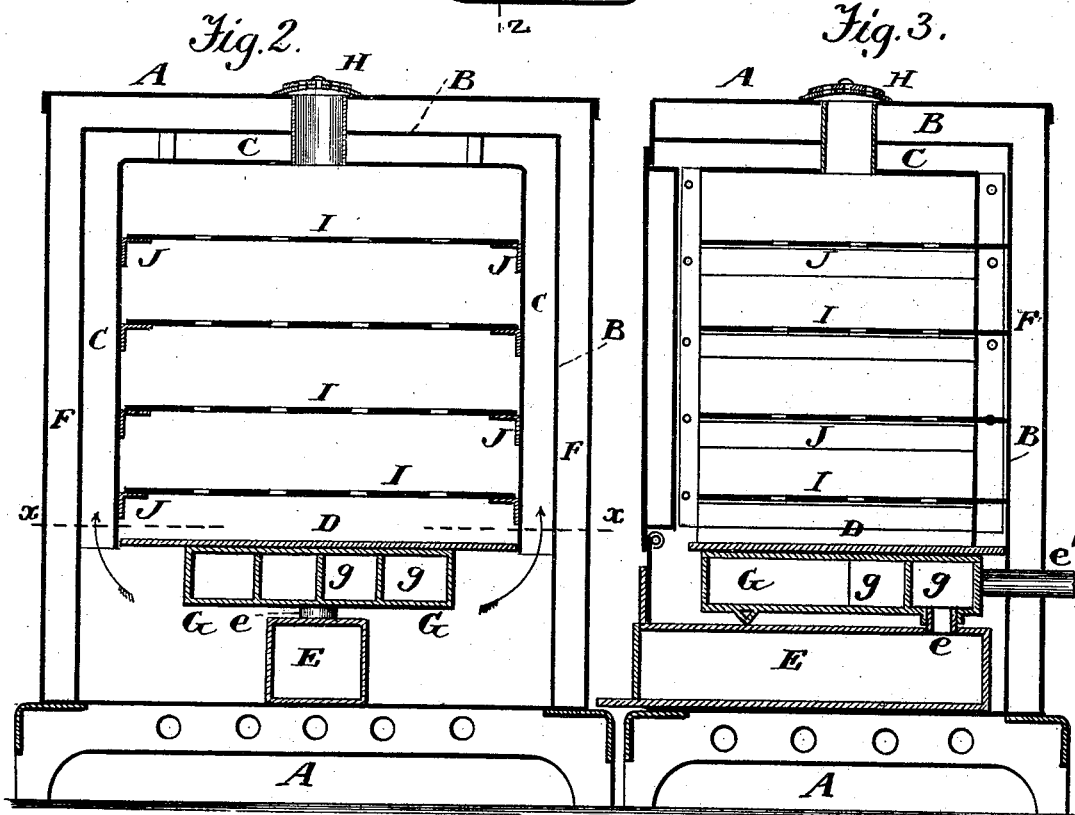
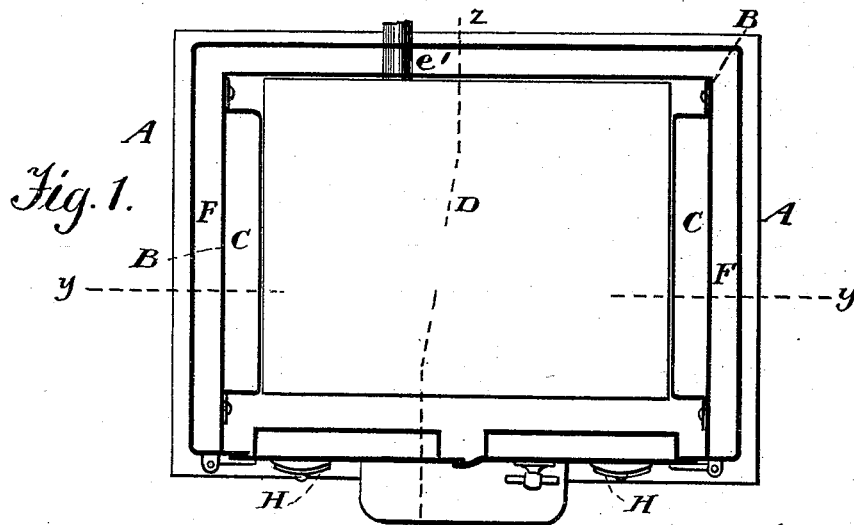
(No Model.)

2 Sheets—Sheet 1.

C. M. FITCH & A. B. KINGSLAND.
PORTABLE BAKING OVEN.

No. 492,541.

Patented Feb. 28, 1893.



Witnesses.
A. Rupert.
H. A. Daniels

Inventors.
Charles M. Fitch
Allan B. Kingsland
Per
Thomas P. Simpson
att'y -

(No Model.)

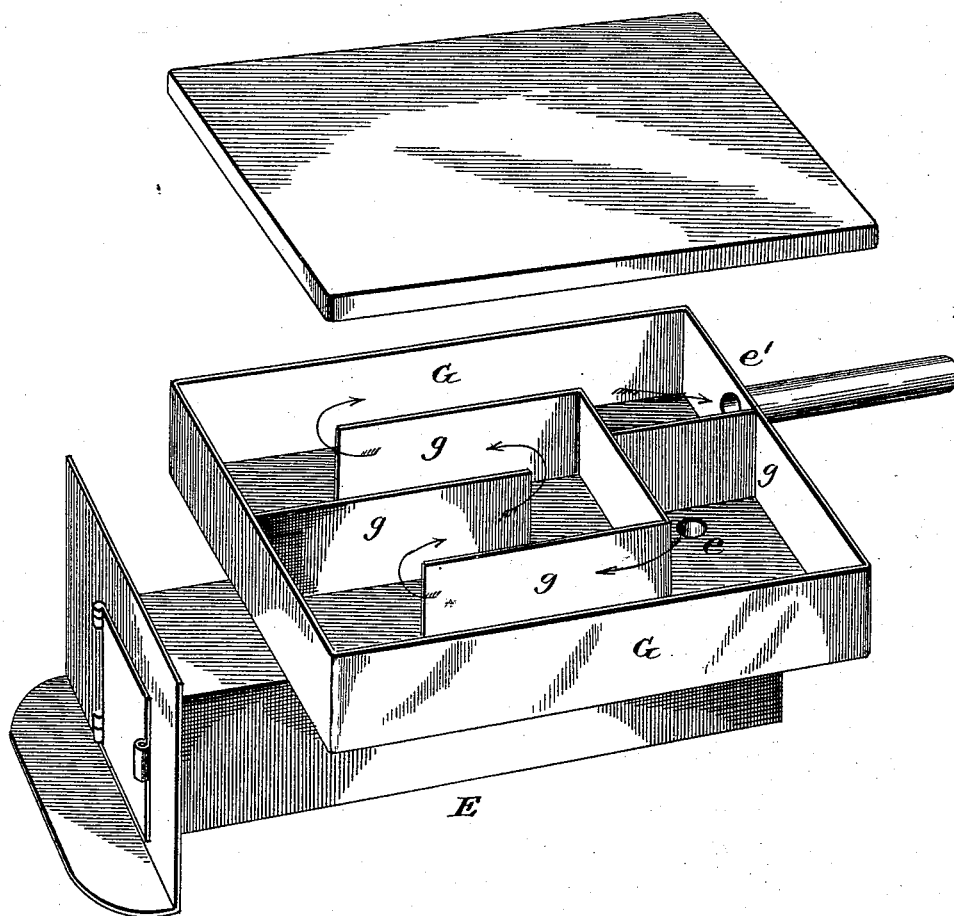
2 Sheets—Sheet 2.

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Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES M. FITCH AND ALLAN B. KINGSLAND, OF BURLINGTON, VERMONT.

PORTABLE BAKING-OVEN.

SPECIFICATION forming part of Letters Patent No. 492,541, dated February 28, 1893.

Application filed June 21, 1892. Serial No. 437,502. (No model.)

To all whom it may concern:

Be it known that we, CHARLES M. FITCH and ALLAN B. KINGSLAND, citizens of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Portable Baking-Ovens; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The special object of the invention is to make a portable baking oven which will cause the hot air to pass up through flues and distribute itself equally; also to manage the products of combustion so that all the heat will be utilized, and a saving in fuel obtained.

Figure 1 of the drawings is a horizontal section, Fig. 2 a vertical section through the top, bottom and sides, and Fig. 3 a vertical section through front, back, top and bottom. Fig. 4 a detail perspective of a cast-iron box particularly described hereinafter.

In the drawings, A represents the oven made of galvanized or other sheet iron extending over top, back, sides, bottom and portion of the front, forming, with the doors, a practically airtight chamber.

B is an inner wall at the top, back and sides to form, with the case A, an intermediate airspace F of an inch, more or less, in width. On the inner wall of each side is fastened an air-chamber C extending from the heat-deflector D and passing up to, or nearly to, the top of the inner casing B, thence across the top. It is open at top in front and back, to allow the hot air, which passes up through the flues, to evenly distribute itself through the oven.

The flue C is at front and back at its upper part so that the hot air may circulate freely through the oven, between the shelves and at the sides thereof.

E is the firebox arranged on the bottom of the oven and midway between the sides, and D a heat deflector made of double sheet iron, to cause the heated air in the base or bottom of oven to pass up through flue C.

G is a cast iron box into which pass the products of combustion and which is provided with the flues *g*. It is arranged on the top of the firebox E and attached thereto by a pipe-connection *e*, while by a pipe-connection *e'*, the products of combustion pass out of the oven at its back. I thus make an oven which is double, except the front piece, the outer casing being preferably made of galvanized iron and the inner of black sheet iron. The flues C pass up the sides and across the top, while they start, on the sides, from or near the bottoms of the doors. The flue, across the top of the oven, is open front and back, so as to allow the hot air which comes up through the side flue, to be distributed evenly throughout the oven.

H are ventilating registers in front and on top of the oven, which may be opened to a greater or less extent as may be found expedient. I represents the shelves which are supported detachably by the side-projections J.

Having thus described all that is necessary to a full understanding of the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

1. The combination with the oven casing, and an interior firebox under the shelves and deflector, of the box G, provided with a winding flue *g* connected by pipe *e* with the top of said firebox and with the smoke pipe *e'* as shown and described.

2. The combination with the casing, of the flue C open at bottom, passing up both sides of the oven, extending over the top of oven and communicating at front and rear of its horizontal portion with the inside of oven; whereby the hot air may circulate freely in the oven as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES M. FITCH.
ALLAN B. KINGSLAND.

Witnesses:

LA FAYETTE WILBUR,
GEORGE B. WILKINS.