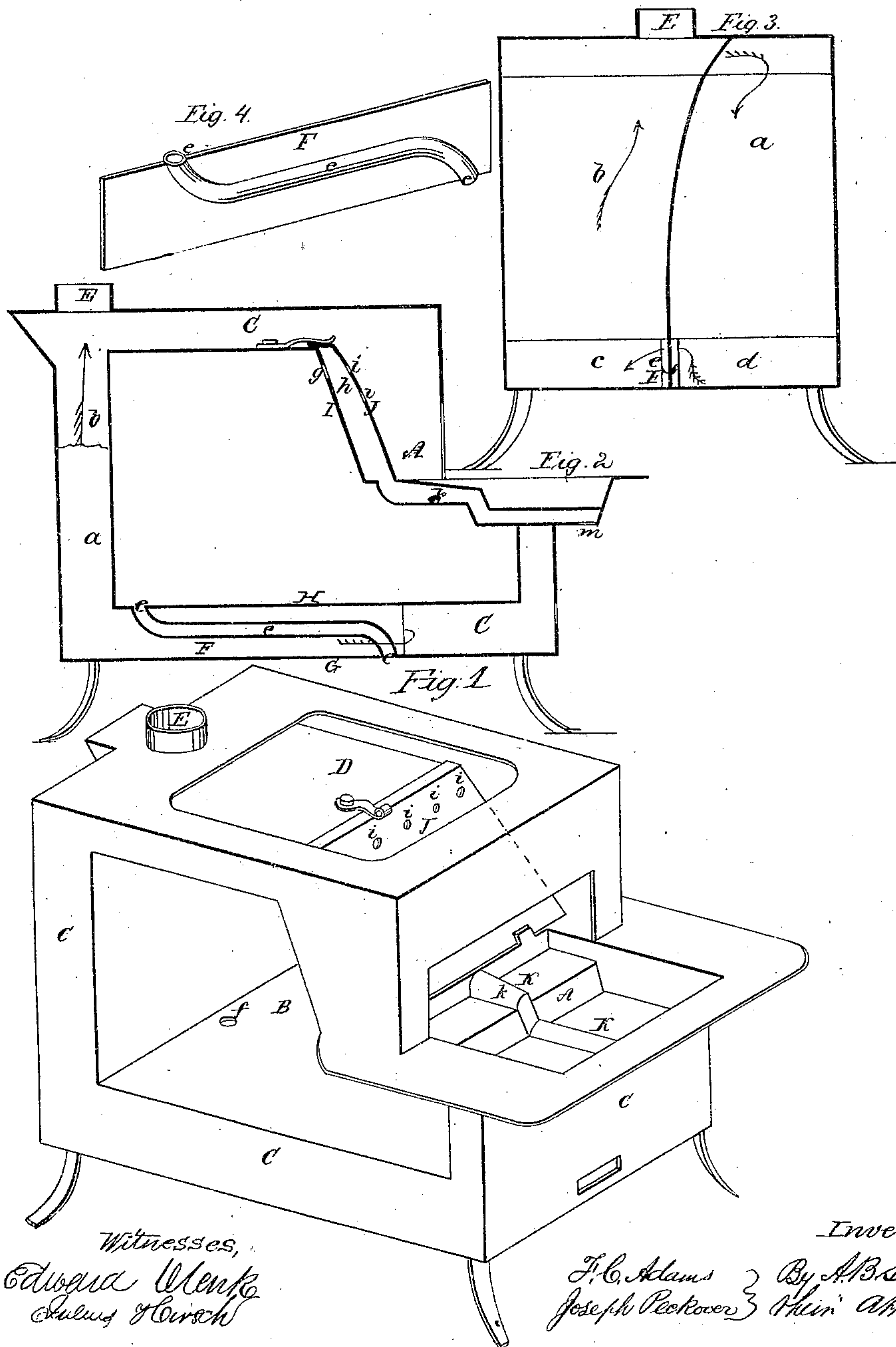


F. C. ADAMS & J. PECKOVER.
COOKING OR OTHER STOVE.

No. 32,953.

Patented July 30, 1861.



Witnesses,
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Julius Hirsch

Inventors
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UNITED STATES PATENT OFFICE.

FEDERAL C. ADAMS AND JOS. PECKOVER, OF CINCINNATI, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 32,953, dated July 30, 1861.

To all whom it may concern:

Be it known that we, FEDERAL C. ADAMS and JOSEPH PECKOVER, of Cincinnati, in the county of Hamilton and State of Ohio, have
5 invented certain new and useful Improvements in Cooking and other Stoves, and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a
10 part of this specification, in which—

Figure 1. represents a perspective view of a cooking stove with the doors and covers omitted, to show the interior. Fig. 2. represents a longitudinal vertical section through
15 the same. Fig. 3. represents a vertical transverse section and Fig. 4 represents a division and flue plate cast in one piece, and separate from the stove.

Similar letters of reference where they occur in the several figures, denote like parts in all of the drawings.

Our invention consists first in the use of a hollow division flue plate, in connection with flue stoves for the purpose of introducing
25 heated pure air into the oven, to make a circulation, and carry off the gases &c. that arise in cooking meats and other things. Also in combination with a hollow wood support, in connection with the fire box, and
30 fire bridge, an air chamber, and an open fire back, for heating and admitting air to the fire box over the burning fuel.

To enable others skilled in the art to make and use our invention, we will proceed to
35 describe the same with reference to the drawings.

A, represents the fire box; B, the oven; C, the flue surrounding the oven; D, the opening in the top plate to receive the segments for making the pot-holes, and E, the
40 exit pipe.

The escaping smoke and heat from the fire, passes, in the usual manner, first, over the top of the oven, thence down the diving
45 flue *a*, (there being a damper to close the other flue *b*)—thence along the bottom under the oven at one side thereof and by a return flue *c*, to the back of the stove and up the flue *b*, to the exit pipe E.

50 The division plate F, that separates the flues *c*. *d* under the oven, is cast with a tube or opening *e* through it, as shown more distinctly in Fig. 4—the lower end of this tube connecting with an opening in the bottom
55 plate G, and the other end with an opening

f, of the oven plate H, so that air may be introduced through this tube or opening into the oven; and as the tube or opening is exposed to the heat and gases passing through the flues *d*. *c*, the air therein becomes heated,
60 and in this heated condition enters the oven.

Through the front plate I, of the oven, there are openings, *g*, which lead into a chamber *h*, formed by said front plate I, the back plate J, of the fire box, and the side
65 plates of the stove; and through the plate J, are also openings *i* through which the air gases, &c., carried through and from the oven B, are introduced into the fire box, to be mixed, and consumed with, the escaping
70 gases from the fuel. The air thus passing through *e* into the oven, and thence through the openings *g*. *i*, into the fire chamber, thoroughly ventilates the oven, carrying off
75 all the gases that arise from the substance being cooked therein, leaving it as free from greasy odor or taste, as though roasted or baked before an open fire. And burning
80 these vapors or gases that arise from the roasting or baking, prevents their escape into the apartment. Heating the air that
85 circulates through, and ventilates the oven prevents it from cooling the oven, while its heated state also tends to promote combustion when mixed with the gases escaping
90 from the burning fuel. Forming or making the tube *e* a part of the division plate, prevents joints, and consequently any gases from getting into the oven through such
95 joints. Thus several important and beneficial results are attained by the use of this hollow division flue-plate.

With the hearth and bottom fire plate K, is cast a hollow wood support *l*, through which air that enters at *m*, passes, and being
95 heated in its passage, enters the chamber *h*, where it receives a denser heat from the back plate J of the fire box, and mingling with the air and gases from the oven passes through the openings *i*, and supplies the
100 heated products escaping from the fuel, with highly heated atmospheric air, and thus burns them.

We are aware that, a solid wood support has been used. But we gain great advantages by the hollow wood support viz: we
105 heat the air that supplies combustion in part or in whole by it—we convey taht air to the place or point where it is to be used by it, and we save the bottom plate of the fire box
110

from being too highly or injuriously heated, by causing a current of air to pass through or in close contact with it.

Having thus fully described the nature
5 and object of our invention, what we claim is—

1. The hollow division flue plate F, for introducing heated air into the oven in addition to its other duty of dividing the flue
10 space, substantially as described.

2. The combination of the hollow wood support *h*—air heating chamber *h*, and open fireback plate J, for the purpose, and in the manner substantially as herein represented and described.

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