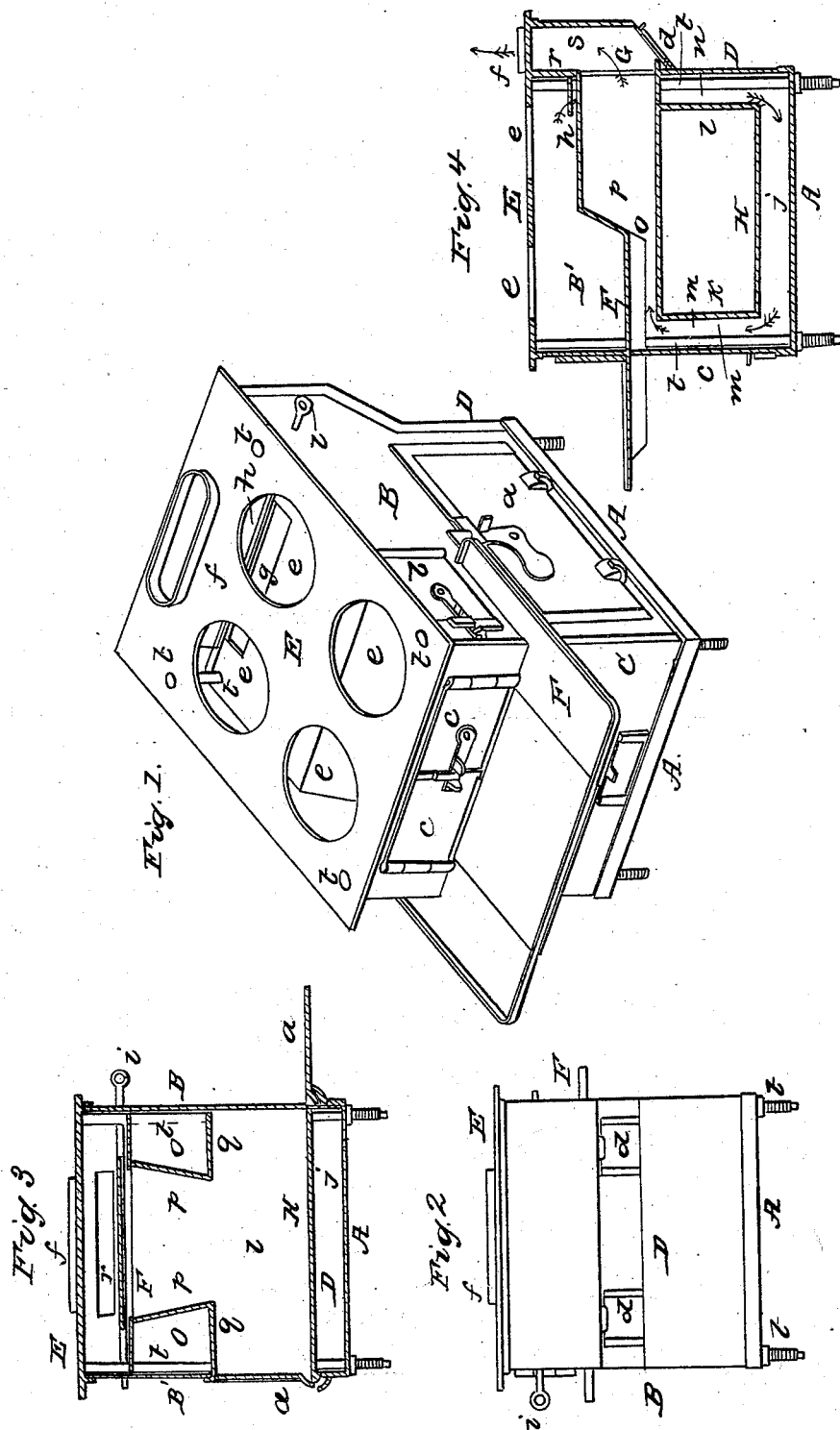


C. WOLFF.
Cooking Stove.

No. 3,877.

Patented Jan. 10, 1845.



UNITED STATES PATENT OFFICE.

CHARLES WOLFF, OF CINCINNATI, OHIO.

COOKING-STOVE.

Specification of Letters Patent No. 3,877, dated January 10, 1845.

To all whom it may concern:

Be it known that I, CHARLES WOLFF, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cooking-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a general view of the complete stove, Fig. 2 a geometrical back elevation, Fig. 3 a vertical, transverse section, and Fig. 4 a vertical, longitudinal section of the same.

Construction.—The general outline of the stove in question is square (or nearly so), consisting chiefly of the bottom-plate A, the two side-plates B and B', the front-plate C, the back-plate D, the top-plate E, and the hearth-plate F, besides several partition-plates and other minor parts hereafter described.

The bottom-plate A is one perfect plate, without any perforations or openings whatsoever, but having all around a flange for the reception of the side-plates. The side-plate B has below an opening of the size of the end of the oven hereafter described, which is closed by a door *a*, and above, and near its front-edge, another smaller opening, leading to the fire-chamber, with a door *b*. The side-plate B' has only one opening, corresponding to the larger one of plate B. The front-plate C has a large opening above the hearth, which leads to the fire-chamber, and extends nearly the whole width of the front. It is furnished with folding-doors *c*.

The back-plate D is bent in such a manner as to present three distinct planes, the upper and lower one being parallel to each other, and being transversely connected by means of the third plane, which, relative to the former, is inclined at an angle of 45 degrees. This plate has near each edge, and in the latter plane, a small square opening, which is closed by slides *d*. The top-plate E has four circular openings *e* for the reception of boilers, &c., and near its back another one *f* of an oblong shape rounded on the ends, for the reception of the pipe. The hearth-plate F is placed about one-third of the height of the stove below the top-plate. It extends inwardly to about half the depth of the stove, then it takes an up-

ward turn at an angle of 45 degrees (more or less), when it again continues horizontally until it meets the plate G hereafter described. Near the latter is, transversely, an oblong opening *g*, which may be closed, when circumstances require, by a damper *h*, which is fastened to a round bar, the ends of which extend through perforations in the side-plates, wherein they move. One of the ends has a knob, or is bent in such a manner as to form a handle *i*. The said hearth projects a suitable distance from the front of the stove, in the usual manner. That part of the hearth-plate, which is inside of the stove, forms at the same time a part of the top plate of the oven below. The bottom plate of the oven H extends all across the stove from side-plate to side-plate, and is placed a suitable distance above the bottom plate of the stove A, so as to form a flue *j* between them and across the whole width of the stove. The front and back plates of the oven *k* and *l* are of the same length with the bottom plate, and their positions, relative to the front and back plates of the stove, are similar to the above-named bottom-plates H and A, so as to form the flues *m* and *n*. On each side of the stove, from front to rear, and directly under the hearth plate F, there are two more flues *o*, which are formed by the side-plate B or B' of the stove, the hearth-plate F, one additional side-plate *p*, which extends back as far as the plate G above referred to, and another additional plate *q* for the bottom of said flue, which extends back to the back-plate D. The plate G spoken of, extends, above the hearth or top plate of the oven, the whole width of the stove, and below it, reaches from the side-plate *p* of one of the flues *o* to the side-plate *p* of the corresponding flue, and down to the bottom-plates *q* of the said flues. The upper or wider part of this plate has an oblong opening *r* similar to the one in the hearth-plate above described, and is closed by the same damper *h*, when required. Between the back-plate of the stove D and the plate G is formed another flue *s*, for the purpose described in the "Operation" following. The whole fabric is fastened together and secured by four vertical bolts *t*, near the angles of the stove, having heads on the top, and screw and nuts on the bottom of the stove, the lower extremities serving as legs to it.

Operation.—During the process of firing up, or that of cooking, the valve or damper *h* is turned down, so as to close the opening *g* in the hearth-plate *F*, allowing the smoke to escape through the opening *r* of the plate *G*, into the flue *s*, which conducts it into the stove pipe, and thence into the chimney-flue. When the oven is used, the opening *r* is closed by the damper *h*, and the heat and smoke passes through the opening *g* into the flue *m* downward, thence through the horizontal flue *j* under the oven, next through the flue *n* in an upward direction, returning horizontally through the flues *o* on each side of the stove, partly over the oven, and finally escaping through the flue *s* into the stove-pipe, &c. Part of the hearth-plate forming a part of the top of the oven, the heat will have a direct action upon the top of the con-

tents of said oven, a desideratum frequently required.

What I claim as my invention, and desire to secure by Letters Patent, is—

The two horizontal flues *o*, in combination with the oven, their bottom-plates forming part of the top of the oven, their inner plates forming partly two sides of the same, their top-plates being formed by the hearth-plate *F*, and their outside plates by the side-plates *B* and *B'* of the stove; I do not claim merely to conduct the heat all around the oven, but I do claim the peculiar arrangement of the flues to effect the said object, as hereinabove described.

CHARLES WOLFF.

Witnesses:

R. A. MADISON,
BENJN. PHILLIPS.