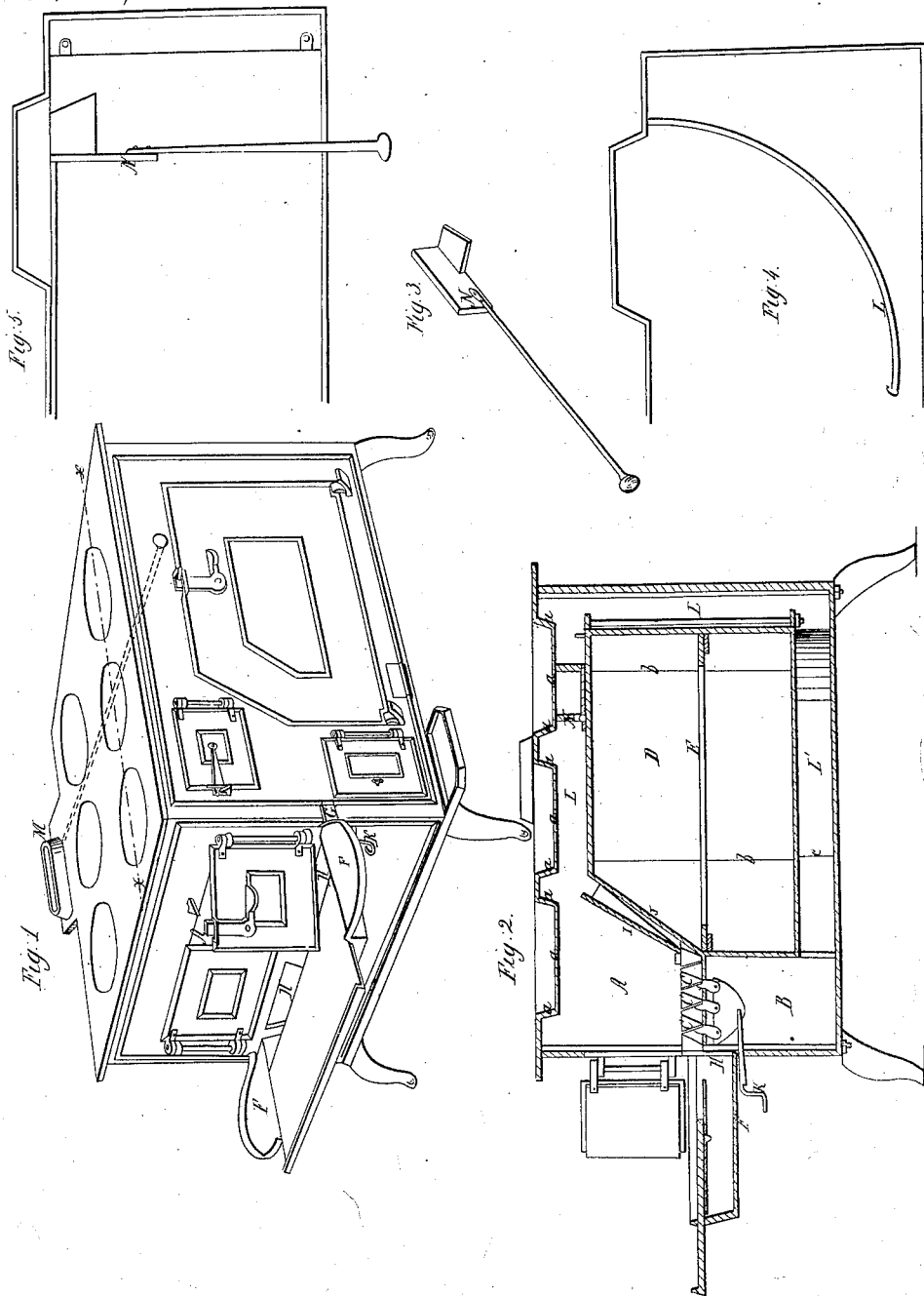


*J Root.*

*Cooking Stove.*

*N<sup>o</sup> 2,250.*

*Patented Sept 11, 1841.*



# UNITED STATES PATENT OFFICE.

JAMES ROOT, OF CINCINNATI, OHIO.

## CONSTRUCTION OF COOKING-STOVES.

Specification of Letters Patent No. 2,250, dated September 11, 1841.

*To all whom it may concern:*

Be it known that I, JAMES ROOT, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain Improvements in Stoves for Cooking; and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing, Figure 1, is a perspective view of my improved stove, and Fig. 2, a vertical section thereof, from front to back in the line *x x*, of Fig. 1.

A, is the fire chamber, in which either wood or coal may be used as fuel. Below the fire chamber is a large ash-pit B, which occupies the whole space between the grate bars C, C, and the bottom plate of the stove, being equal to about one half of its height.

D, is an oven having a sliding shelf E, within it. The hearth F, is cast separately from the plates of the stove, and is subsequently attached to the front plate by means of brackets, or projecting pieces, G, cast thereon, or attached thereto. This forming of the hearth of an independent casting results from the particular construction of the stove; as it does not constitute a part of any horizontal plate within the stove the construction of the fire chamber and ash-pit forbidding this as where the hearth and fire lead are cast together a grate and ash pit cannot be employed as the movable bars, to be presently described, extend from end to end of the fire chamber, and constitute the only division between it and the ash pit. H, H, are openings through the front plate into the ash-pit.

I, is a removable back plate to the fire chamber, preventing the over-heating of the front oven plate J, and capable of being readily renewed if injured by the action of the fire. I sometimes, more especially when coal is used as a fuel, cast the top plate of my stove without actual openings through it, for the reception of cooking utensils; and instead thereof I form depressions in said plate, the bottoms and sides of which are continuous, resembling in appearance a skillet, or frying pan, as shown at *a, a*, in the section; by means of this provision no smoke can escape when the cooking utensils are removed, while there is but little difference in the time required for boiling, or other cooking operation, and the burning of articles which are being cooked is effectually prevented. Each individual bar of my fire-grate C, C, is hung upon a pivot, and is con-

nected to a shaker handle K, in the manner shown in the drawing, by which means, not only may the ashes be shaken out, but the bars may be closed so as to admit of the covering of embers, and preserving them in an ignited state. The flue I, from the fire chamber passes over the oven, down at the rear end of the stove, and under the oven to an ascending flue at one side, the upper part of which is seen at M, and its outline at *b, b*. A partition plate, shown at L<sup>1</sup>, brought around in a curved direction and terminating at *c*, serves to conduct the heated air which has descended the rear flue, toward the fore part of the stove, without which it would pass immediately to the side flue, and the lower plate of the oven would not be sufficiently heated.

The course of the partition plate L<sup>1</sup>, is shown in Fig. 4, which represents the bottom plate of the stove.

A sliding damper, shown separately in Fig. 3, is used to open or close a direct passage from the upper flue L, to the escape pipe at M, when it is not desired to heat the oven. The inner side N, of this sliding damper is elongated, so that when drawn out it shall project to such distance into the upper flue L, as to cause the draft of heated air from the fire to pass in the vicinity of the openings for the rear boilers, which it would not do without this provision. The place of the sliding damper is shown at N, Fig. 2, and in dotted lines in Fig. 1. A top view of it is given also in Fig. 5, which is a section of the top of the stove with the top plate removed.

Having thus fully described the manner in which I combine and arrange the respective parts of my cooking stove, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The manner of arranging and combining the respective parts constituting the fire-chamber, the ash-pit and the hearth; said arrangement and combination consisting of the fire-chamber and ash-pit separated from each other by the grate bars C, C, only; which grate bars are each of the ordinary width of such bars, and each hung upon pivots, and connected with a handle by which they can be shaken, or closed, at pleasure; and of an independent hearth, not connected with any plate of the stove, excepting by the brackets used to attach it to the front plate, all as set forth. By which

arrangement I am enabled to employ such a grate and ash pit as are herein described and represented, which cannot be done when the hearth plate constitutes a part of that which supports the fire.

2. I claim also the combining and arranging, in the manner set forth, with the boiler space over the oven, and the direct opening to the stove pipe M, a damper N, so con-

structed and arranged as that when drawn out it shall intercept the draft of heated air, and cause it to pass in the vicinity of the rear cooking utensils.

JAMES ROOT.

Witnesses:

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