W. P. ABENDROTH.

Cooking-Range.

No. 166,242. Patented Aug. 3, 1875.

FIG. 1.

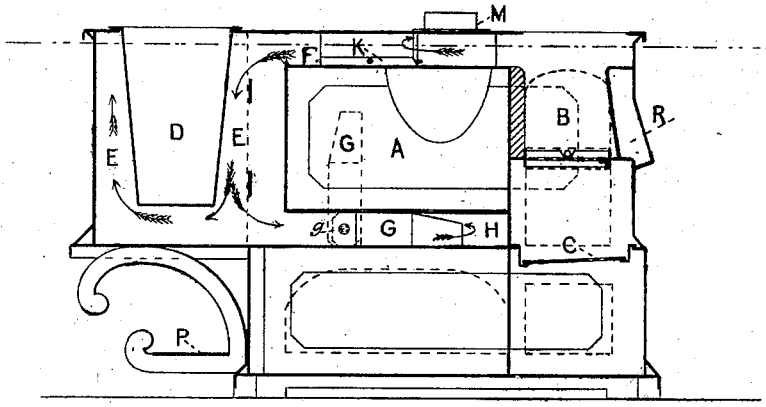


FIG. 2.

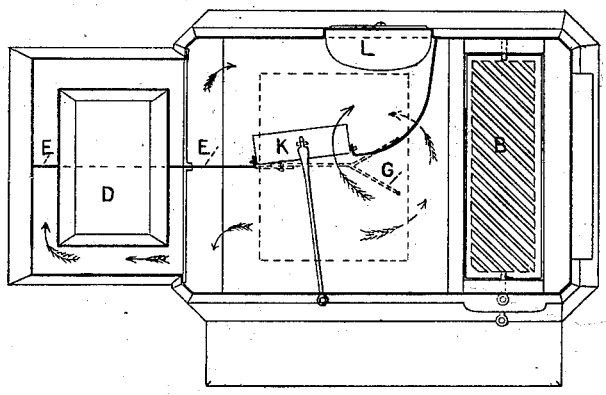
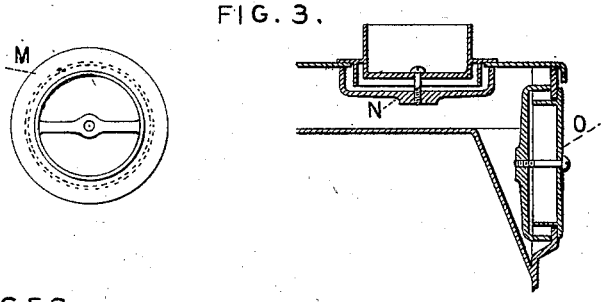


FIG. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM P. ABENDROTH, OF PORT CHESTER, NEW YORK.

IMPROVEMENT IN COOKING-RANGES.

Specification forming part of Letters Patent No. **166,242**, dated August 3, 1875; application filed June 18, 1875.

To all whom it may concern:

Be it known that I, WILLIAM P. ABENDROTH, of the town of Port Chester, county of Westchester and State of New York, have invented certain Improvements in Cooking-Ranges, of which the following is a specification:

This invention pertains to certain improvements in stoves or ranges for cooking purposes; and the invention consists chiefly in the arrangement of the flues that surround the oven, whereby a double circulation of the heat is produced, in combination with a boiler at the opposite side of the oven from the grate, and whereby an even or uniform temperature is maintained in all parts of the oven, as will hereinafter appear.

Figure 1 is a vertical and longitudinal section of the range. Fig. 2 is a plan view with the top removed, and also shows by dotted lines and arrows the flues below the oven. Fig. 3 shows a method of changing the pipe-joint, both in plan and in section.

At A is represented the oven or chief chamber of the range, and at B is shown the fire-chamber or grate on the right-hand side, and underneath it is the ash-sifter and ash-pit, as at C. At the left of the oven is shown the boiler, as at D, and it fits snugly into a chamber, which is divided by flanges or plates that are placed in the said chamber, half-way from the front to the back, as at E, and they form a prolongation of the same division-plates that extend over and under the oven, as at F and G, so that the entire space around the oven and the boiler is divided into two parts by said plates when the boiler itself is in position, except the small space left at H, where the plate G ends before it reaches to the wall of the ash-chamber. A portion of the upper plate, over the oven, is pivoted at its lower edge to permit its being thrown back, as a damper is operated, as shown at K, Fig. 2, so that the heat may travel directly across the top of the oven to the pipe-hole at L; but if said damper be closed, then the heat is forced down along the space on the front side of said plates, and around the end of the plate G, or through the space at H, and thence along the back side of said plates, up again over the oven, and to the pipe-hole I. But it will be seen that the plate G under the oven is forked at the end next to the space H, as shown by the dotted lines in Fig. 2, and this is for the purpose of forcing the heat out under the bottom of the oven to its extreme corners, instead of allowing it to sweep directly around the end of the plate, and thereby bring the heat more to the center than the corners of the oven, as is now generally the case. A portion of said plate G is pivoted, as at *g*, Fig. 1, to allow it to be raised up when the bottom plate of the oven is removed, so that the space under the oven may be the more easily cleaned when required. Making the end of this plate forked and pivoting it constitutes an important feature of the improvements in this range, and it is also evident that said pivoted part may be arranged with a slip-joint connection, so that it may be entirely removed for cleaning the flues.

But another improvement consists in providing two places for the smoke-pipe to be attached, as shown at Fig. 3, where a plan of the flange is represented at M, and is made separate from the stove-plates proper, and is there attached by a screw-bolt extending down through a cross-bar cast on the under side of the flanged plate M into another bar, which reaches across and underneath the hole in the stove-plate, as shown at N, Fig. 3, where the flange for the pipe is represented on the top of the range. But if it be desired to connect the pipe on the side of the range or back of the oven, then the flanged plate M is placed at O, and the cap at O is placed on the top or left off, as desired. If left off, then another hole is left in the top plate for a cooking-utensil.

Another improvement consists in providing a shelf, as at P, at the left-hand side of the range and underneath the boiler, and said shelf is mounted at each end upon a projection that forms part of the bracket that supports the boiler, and thereby forms a sort of ornamental finish to that part of the range. At R, on the right-hand side of the grate and fire-chamber, is placed the water-jacket, which is inserted in a recessed portion of the outer plate, and the inside of said jacket is somewhat inclined inward at the top, to thereby the better catch the heat rising from the

grate; but for this I do not desire to make any claim at present.

I do not claim in this application the flanged disks for receiving the stove-pipe, as such invention may be made the subject of a separate application for Letters Patent.

I claim—

1. In combination with the oven of a stove or cooking-range, a dividing-plate under the oven, pivoted at one end, and constructed to be moved vertically, either with or without a forked end, substantially as described, and for the purposes set forth.

2. The combination, in a cooking-stove constructed with a water-reservoir, of the division-plates extending under and over the oven, and the division-plate arranged centrally in the reservoir-chamber, and forming a continuation of the plates extending over and under the oven, substantially as shown and described, whereby the entire space around the oven and the reservoir is divided into two parts, for the object specified.

WM. P. ABENDROTH.

Attest:

BOYD ELIOT,

JNO. D. PATTEN.