

(No Model.)

E. W. ANTHONY.
COOKING STOVE.

No. 369,677.

Patented Sept. 13, 1887.

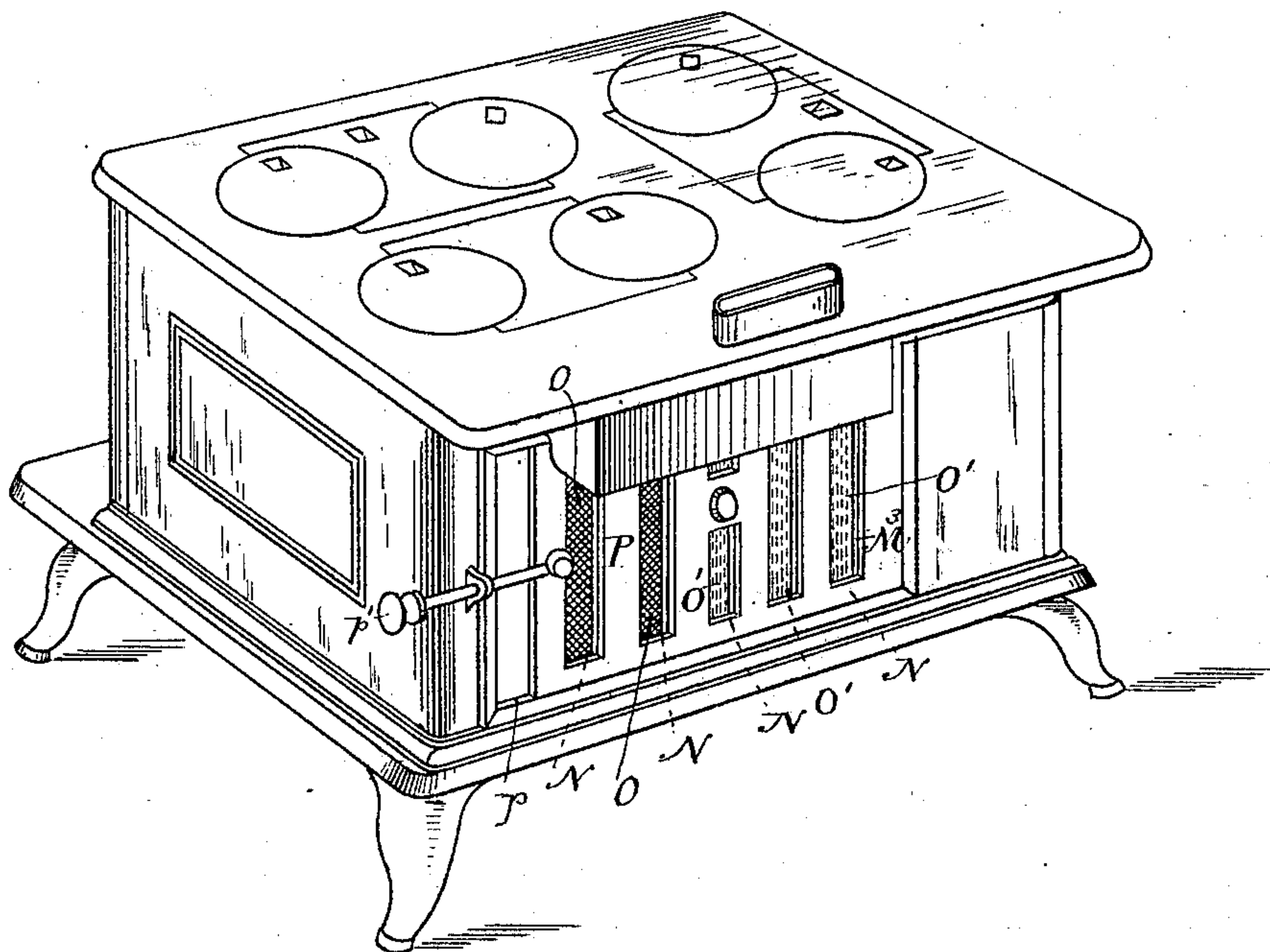


Fig. 1.

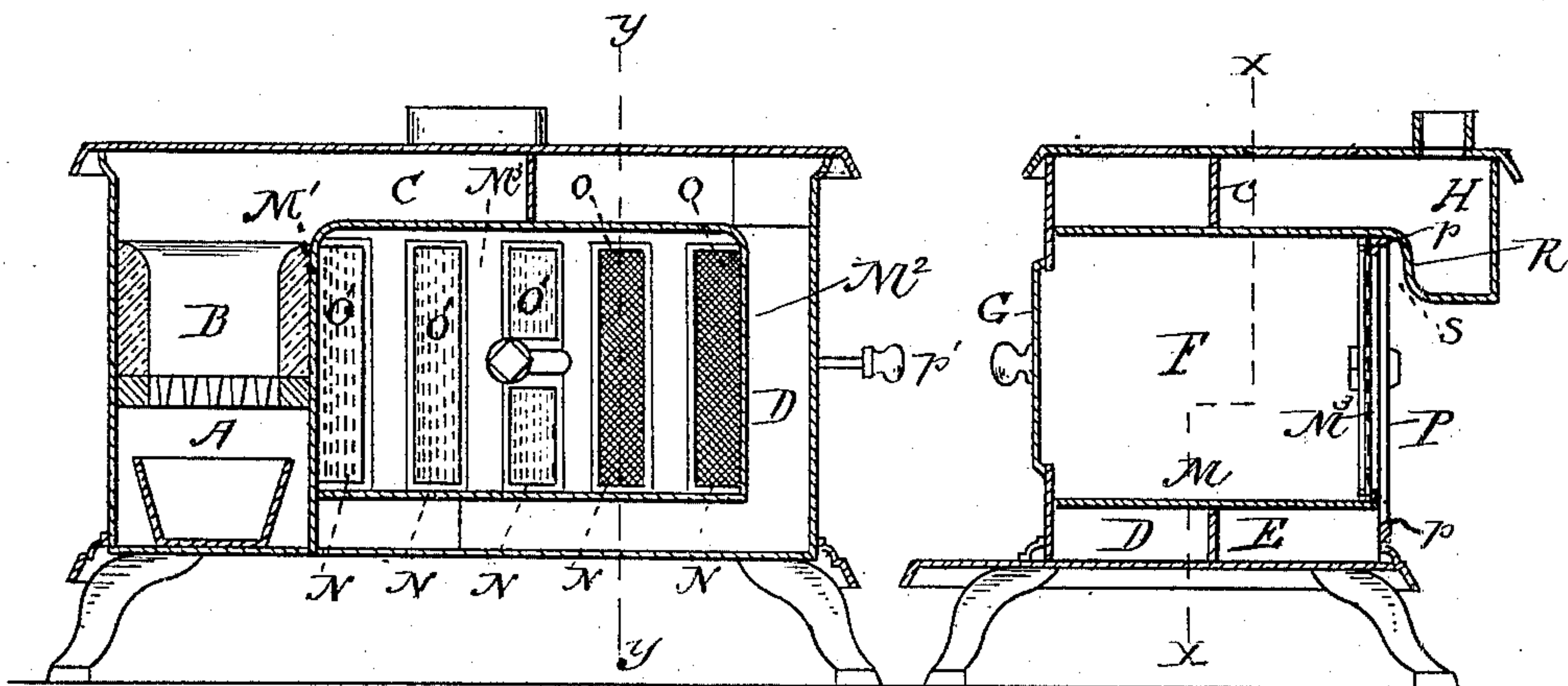


Fig. 2.

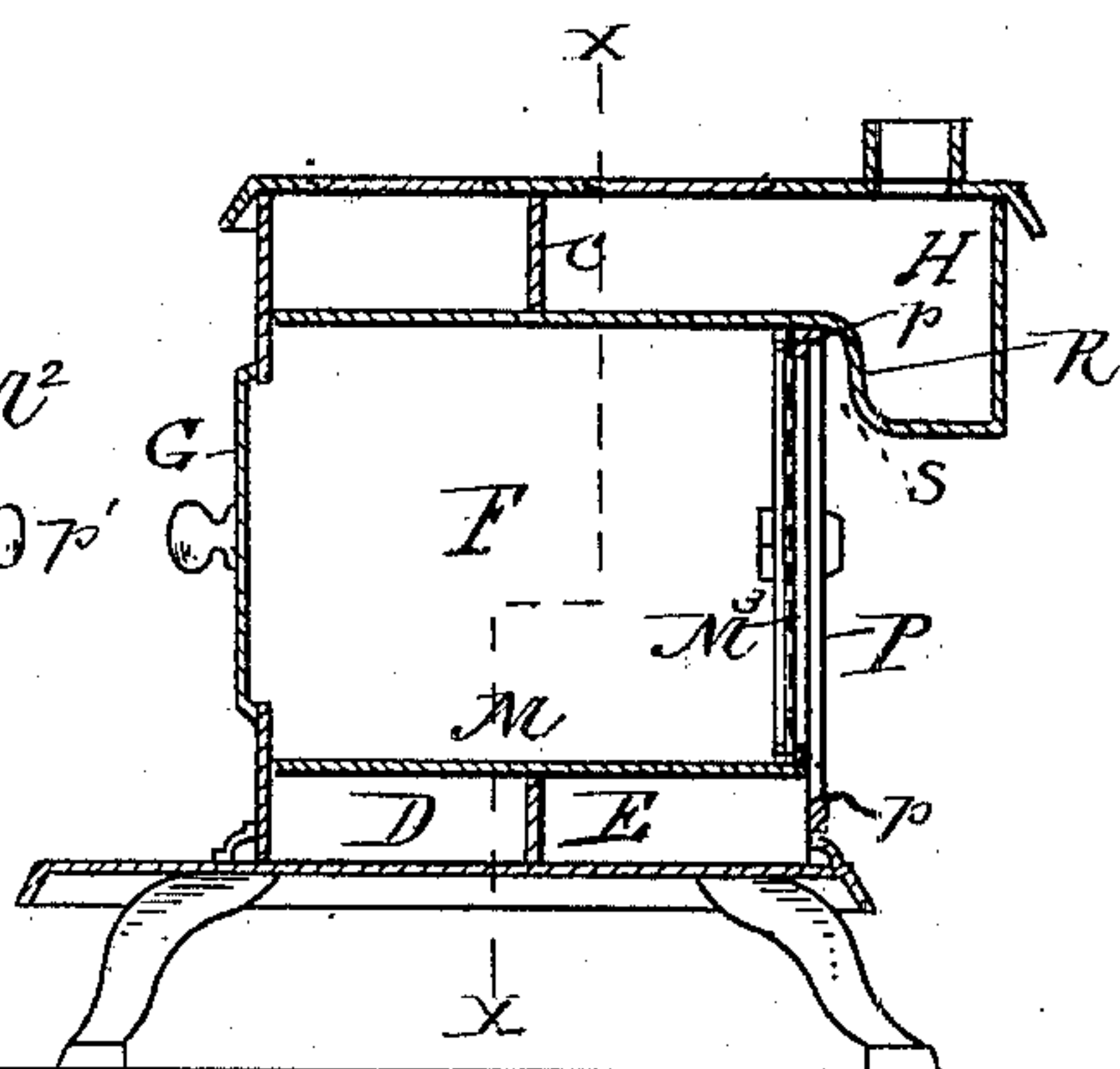


Fig. 3.

WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

EDGAR W. ANTHONY, OF BOSTON, MASSACHUSETTS.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 369,677, dated September 13, 1887.

Application filed May 4, 1885. Serial No. 164,337. (No model.)

To all whom it may concern:

Be it known that I, EDGAR W. ANTHONY, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Cooking Stoves and Ranges, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

It is very desirable to introduce into a baking-oven while the process of baking is going on a fresh supply of air. This air must be introduced not in large quantities, or in a way to materially affect the temperature of the oven, but in the form of a spray, if air can be said to take such form, produced by drawing through very fine perforations or holes; and it is also necessary, in order to maintain this infusion of fresh air, that the heated air, or air which rises to the top of the oven, should be allowed to escape, but not too rapidly; and for this purpose it is also desirable to furnish very fine holes or perforations, through which it shall pass in its escape. This introduction of the outer air and circulation thereof within the oven produces a marked effect upon the article or thing being cooked.

My invention relates to that class of cooking-stoves the ovens of which are supplied with a limited quantity of fresh air, so that they may be properly ventilated while the process of baking is going on, the object of my invention being to provide a construction which will obviate some of the objections to stoves of the class referred to heretofore in use. This object I accomplish by providing the back plate of the oven with a series of vertical openings extending substantially the full height of the said plate, the said openings being covered by fine wire-gauze or by finely-perforated plates; and to permit of the use of a back plate thus constructed the back of the stove is formed with an overhanging curved portion, between which and the top portion of the back plate is an open space, which permits of the proper escape of the heated air from the top portion of the oven through the upper portions of the wire gauze or perforated plates covering the openings in the said back plate.

Referring to the drawings, Figure 1 is a per-

spective view of a six-hole range, showing especially the back and end thereof to illustrate the application of my invention. Fig. 2 is a view in vertical section upon the line *xx* of Fig. 3, also showing in elevation parts beyond this line. Fig. 3 is a vertical central section upon the line *yy* of Fig. 2.

The invention is represented as applied to a six boiler hole range.

A is the ash-pit; B, the fire-pot; C, the space between the top plate of the oven and the top plate of the stove, through which the products of combustion pass. D is the downflue; E, the upflue; F, the oven; G, the oven-door; H, the box into which the downflue enters, and which is connected with the space C by the opening in the plate *c*, which is adapted to be closed by a damper. M is the base-plate of the oven; M', the front plate; M², the rear side plate, and M³ the back plate.

It will be observed from this description that the oven is surrounded upon the top, bottom, and back side by the flues D and E, that the front side is occupied by the door, that the back of the oven has no flue, the back plate being of a single thickness, and it is in this plate that I have arranged the openings N, which extend from the lower edge or near the lower edge of the plate upward to the upper edge or very nearly to the upper edge of the plate. As many of these openings may be used as desirable. They are partly closed by very fine wire-gauze O, as represented in Figs. 1 and 2, or by very finely-perforated plates O', as also represented in said figures. The openings are entirely closed by the plate or plates P, which slide in ways *p* upon the outside of the plate, and which is or are moved by the handle *p'* into position to cover the openings and out of position to uncover them.

In order that the openings may extend to or very nearly to the top of the back plate and so as to connect the upper portion of the oven with the outer air, I have formed the inner wall, R, of the box H as represented in Fig. 3, or so as to be inclined or extend outwardly from a point on a line with the top plate of the oven, and so as to form between the wall and the back plate the recess or space S. I have selected as the best place for the arrangement of these openings the back plate of the oven,

as this is a portion of the stove which is not open or exposed to view, because the box H projects sufficiently to cover the openings and to prevent ashes or dust from clogging the perforations. It is also out of the way.

I am aware that it is not new to provide the oven-door with openings filled with wire-gauze, through which fresh air enters and the heated air leaves the oven; but I consider that the arrangement or location of these openings in the door is objectionable for these reasons—first, they bear such a relation to the room and to the top of the stove and the ash-pit that they very soon become clogged by the accumulation of dust and dirt, which finds a ready lodgment therein; second, it detracts from the general appearance of the front of the stove; third, the stove-door should always be solid or unprovided with openings.

Of course the shape of the openings may be modified or changed without departing from the spirit of my invention or the essential features thereof.

I am aware of Patent No. 272,912, granted to J. W. Thomas, dated March 13, 1883, which describes a series of holes arranged in the oven-door, a plate forming the rear wall of the oven; and also the patent to Dennis G. Littlefield, No. 313,874, dated March 17, 1885, which shows and describes a stove-door or stationary wall of the oven having air-inlets and

an air-outlet into the escape-flue of the stove; but I consider that these patents do not describe or contain the features of my invention, in that the air inlet and outlet are not arranged in the back plate of the stove, and there only, and because they are arranged in the door of the stove, which, as I have abovestated, I consider to be objectionable, and also because they open into the flues of the stove, which I consider not desirable and do not use; and I therefore do not claim the inventions set forth in these patents.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

In a cooking stove or range, the combination of the back oven-plate having a series of vertical recesses extending substantially the full height of the plate, and containing wire-gauze or plates of finely-perforated metal, with a slide plate for covering said recessed sections of the back plate in whole or in part, and the box at the rear of the stove provided with a curved plate, R, and forming the recess or space S between it and the back plate of the stove, as and for the purposes described.

EDGAR W. ANTHONY.

Witnesses:

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