

(No Model.)

R. BOERSIG.

STOVE.

No. 398,694.

Patented Feb. 26, 1889.

Fig. 1.

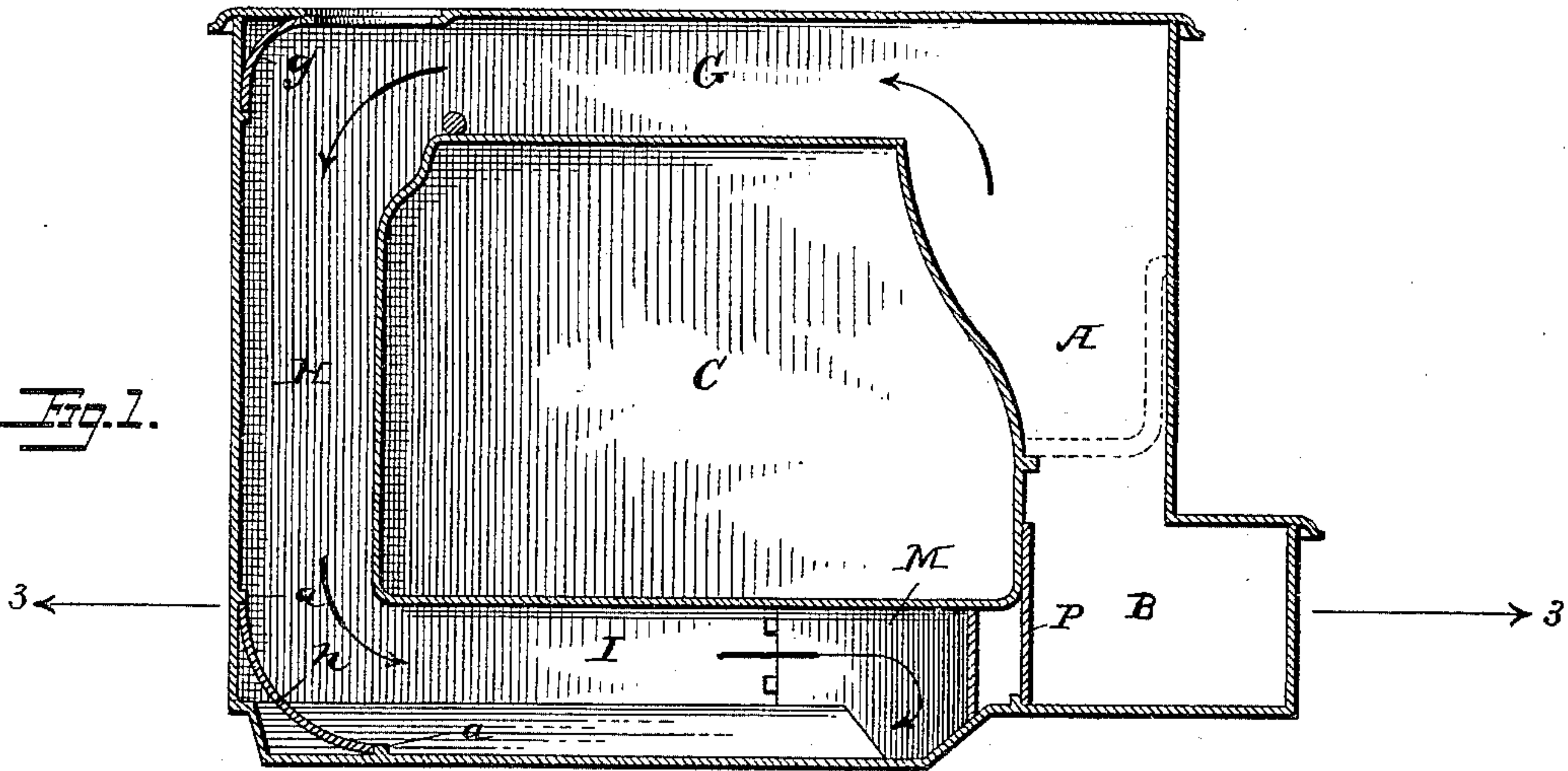


Fig. 2.

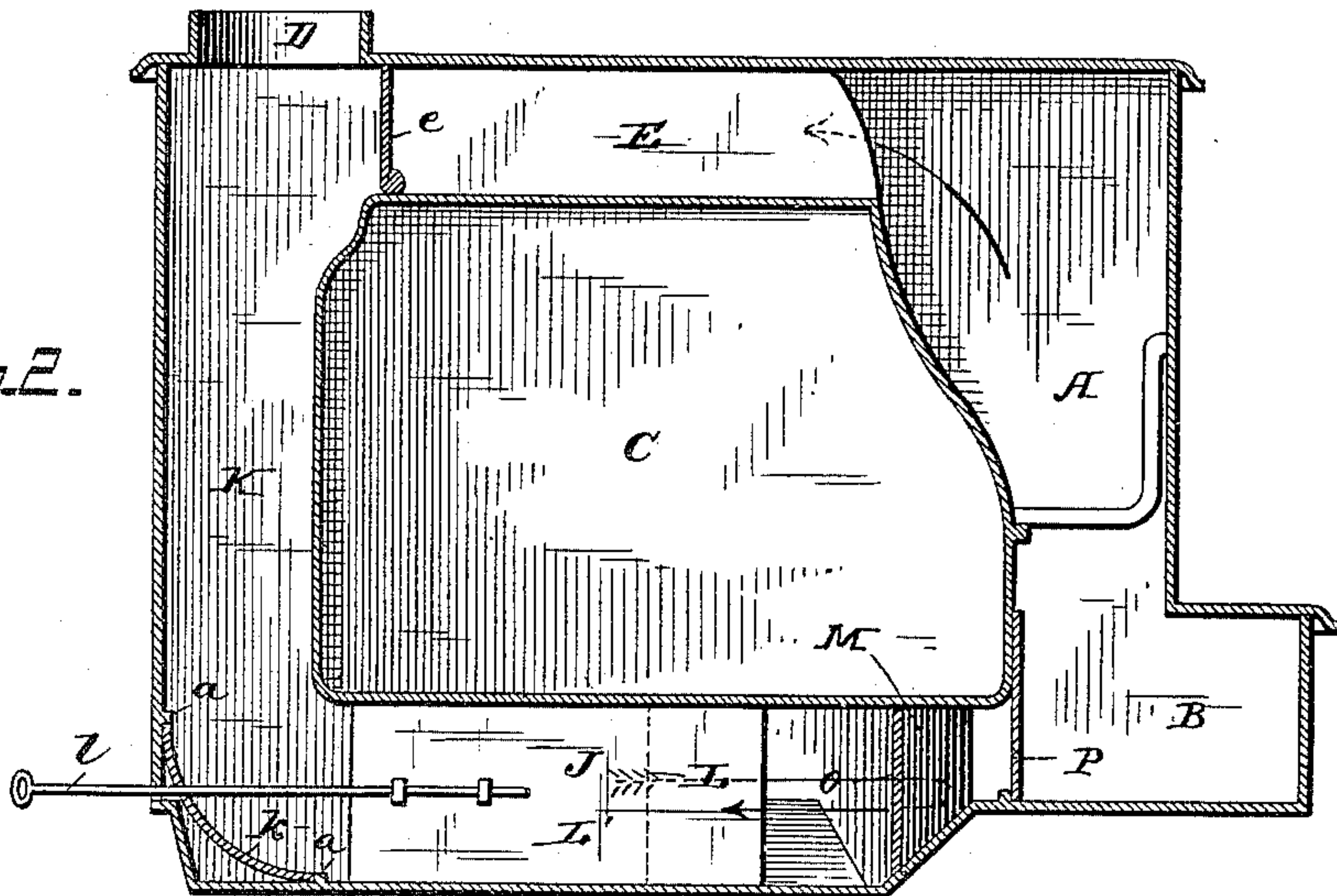
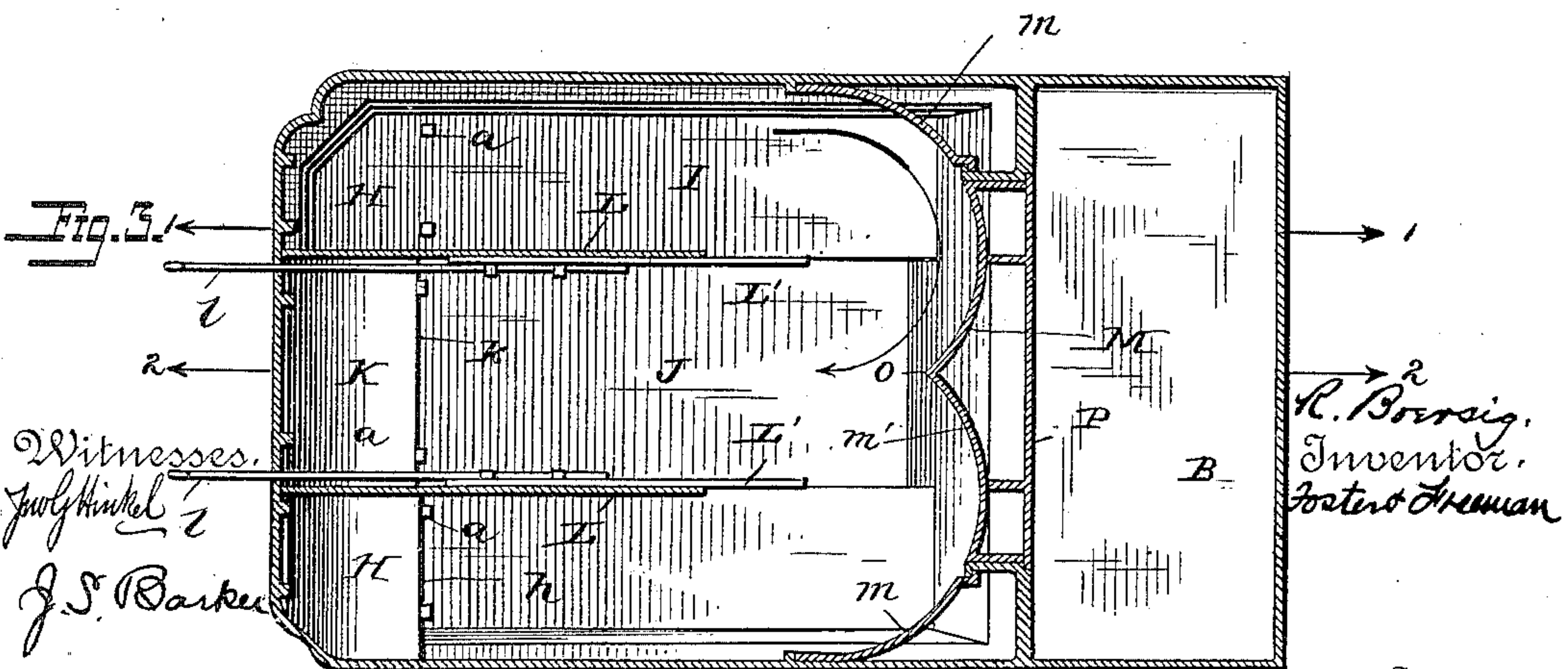


Fig. 3.



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RICHARD BOERSIG, OF NEW ALBANY, INDIANA.

STOVE.

SPECIFICATION forming part of Letters Patent No. 398,694, dated February 26, 1889.

Application filed October 8, 1888. Serial No. 237,600. (No model.)

To all whom it may concern:

Be it known that I, RICHARD BOERSIG, a citizen of the United States, residing at New Albany, in the county of Floyd and State of Indiana, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

My invention relates to cooking-stoves; and it consists in certain improvements in the interior construction whereby the draft is improved and rendered more uniform, thus economizing fuel and improving the heating and cooking qualities of the stove.

My invention will be described in detail hereinafter, and is illustrated in the accompanying drawings, wherein Figure 1 is a vertical section of a stove containing my improvements, taken on the line 1 1, Fig. 3. Fig. 2 is a similar section taken on the line 2 2, Fig. 3. Fig. 3 is a horizontal section on the line 3 3, Fig. 1.

In the drawings, A designates the fire-place of the stove; B, the ash-box, and C the oven. The direct flue E, leading from the fire-place to the smoke-pipe D, is located centrally over the top of the oven, and is regulated by the damper *e* in the usual manner.

When it is desired to heat the oven or to check the draft, the damper *e* is made to close the flue E, in which case the products of combustion take the course indicated in Fig. 1 and by the arrow 1, Fig. 2, passing first from the fire-pot through the top side flues, G, over the oven, thence downward through the outer rear corner flues, H, to the bottom side flues, I, Fig. 3, below the oven, whence they are directed into the central bottom flue, J, and pass thence to the central rear flue, K, and out to the smoke-pipe. The course of this circulating-flue is not, of itself, novel; but heretofore it has been customary to make the turns from one part or passage thereof to another angular. This results in eddies in the corners, which constitute a check to the products of combustion at each corner or angle and materially impair the draft. In order to overcome this objection and insure a practically continuous, uniform, and unimpeded draft, I place in the angles at the junction of the different draft-passages curved guide-plates.

Those at the upper portions of the flues H are designated *g*, those at the bottom *h*, and that at the bottom of flue K as *k*. These guide-plates are preferably formed of sheet metal, and are confined in place either by being slid, sprung, or otherwise forced behind lugs *a* formed therefor on the stove-plates, or otherwise secured thereto, as by bolts. This enables them to be readily removed and replaced should it become necessary from any cause, as by reason of the breakage of a part or for cleaning the stove.

There are openings in the top stove-plate over the flues H, covered by lids, to render access to such flues easy.

The two outer flues, I, below the oven are separated from the central flue, J, except at their front ends, by partitions L L, the front portions of which are in the form of sliding plates L' L', sliding between lips on the bottom of the oven-plate and on the top of the bottom plate of the stove, and which may be operated by the handles *l* to adjust the sizes of the passages from the flues I to the flue J.

The curved plates M, by which the products of combustion are directed from the flues I into the flue J, are arranged tangential to the outer side walls of the flues I some distance back from their front ends, as shown in Fig. 3, where they are secured, and extend past the ends of the flues I to a vertical line opposite the center of the flue J, where they meet to form an inward-projecting edge, *o*. I have discovered that by the use of these plates, particularly when combined with the sliding plates L and attached in the manner described, the bottom of the oven is more uniformly heated than has heretofore been customary, so that articles are baked equally as well at the sides of the oven as at the center, and also the danger of such articles becoming burned on the bottom before they are otherwise cooked is reduced to a minimum.

By preference I form each plate M of two parts, *m m'*, the former being the outer parts attached to the walls of the flues I, while the latter parts, *m'*, are cast with or secured to a removable door, P, closing an opening from the ash-box B into the flues I and J, through which they are cleaned.

Without limiting myself to the precise arrangement and location of parts shown, I claim—

1. In a stove, the combination, with an oven,
5 of the flues I I and J below the oven, and separated by the partitions L, except at one end of the stove, where the said flues communicate, and the sliding plates L', substantially as described.

10 2. In a stove, the combination, with an oven, of flues I I and J below the oven, the partitions separating such flues constituted in part by the sliding plates L' at their ends, and the curved deflecting-plates M, substantially as
15 described.

3. In a stove, the combination of the flues I I and J, an opening into the said flues closed

by a door, and curved deflecting-plates M across the ends of the flues I, consisting of the parts *m* secured to the stove-plates, and the 20 parts *m'* carried by the said door, substantially as described.

4. The combination, in a stove, of a hot-air flue, the walls whereof are arranged at angles to each other, the lugs *a* on the said walls, and 25 the detachable curved plates secured behind the said lugs, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHARD BOERSIG.

Witnesses:

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GEORGE J. STROBEL.