

C. H. BLANCHARD.
HEATING-STOVE.

No. 174,106.

Patented Feb. 29, 1876.

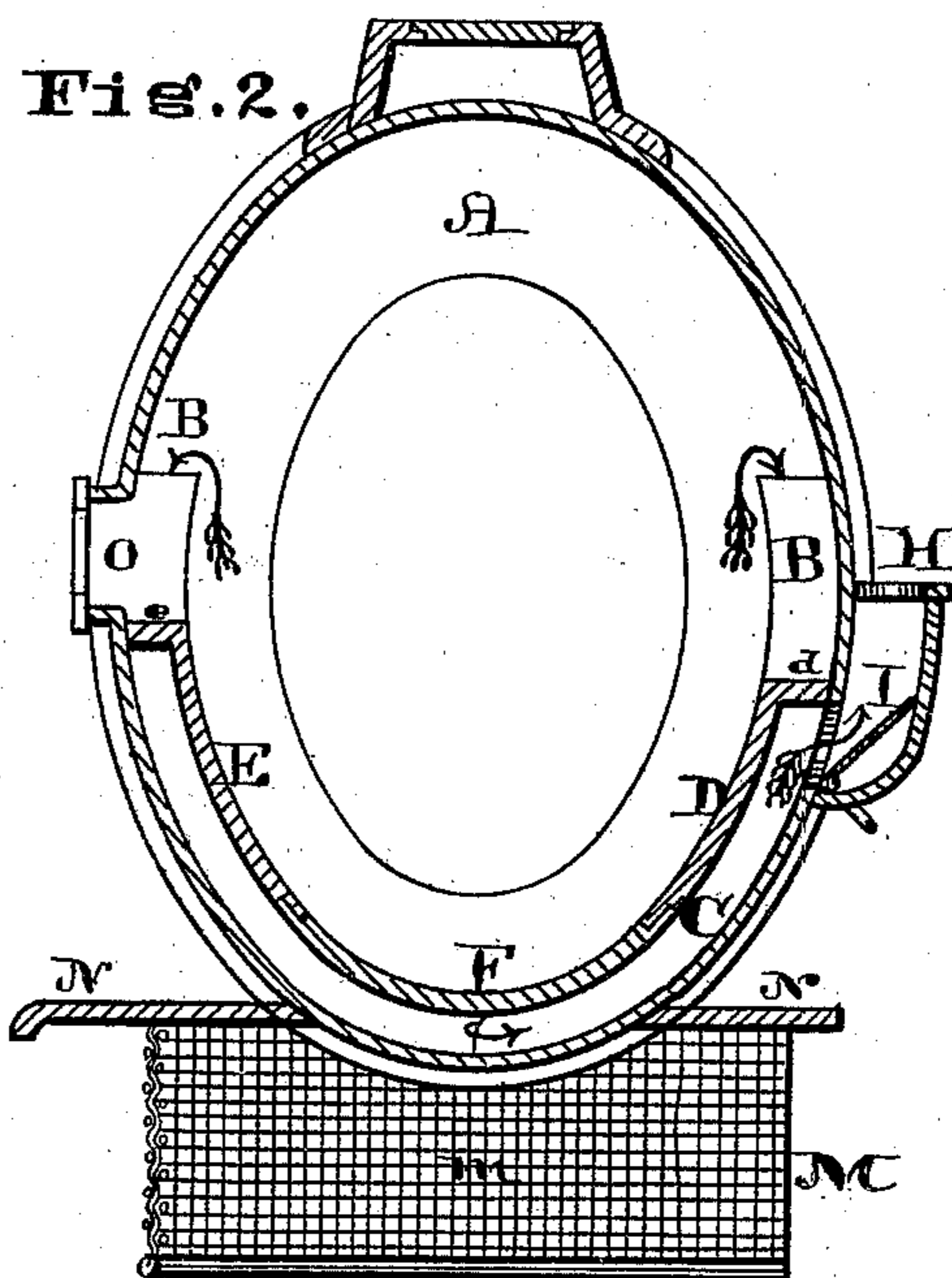
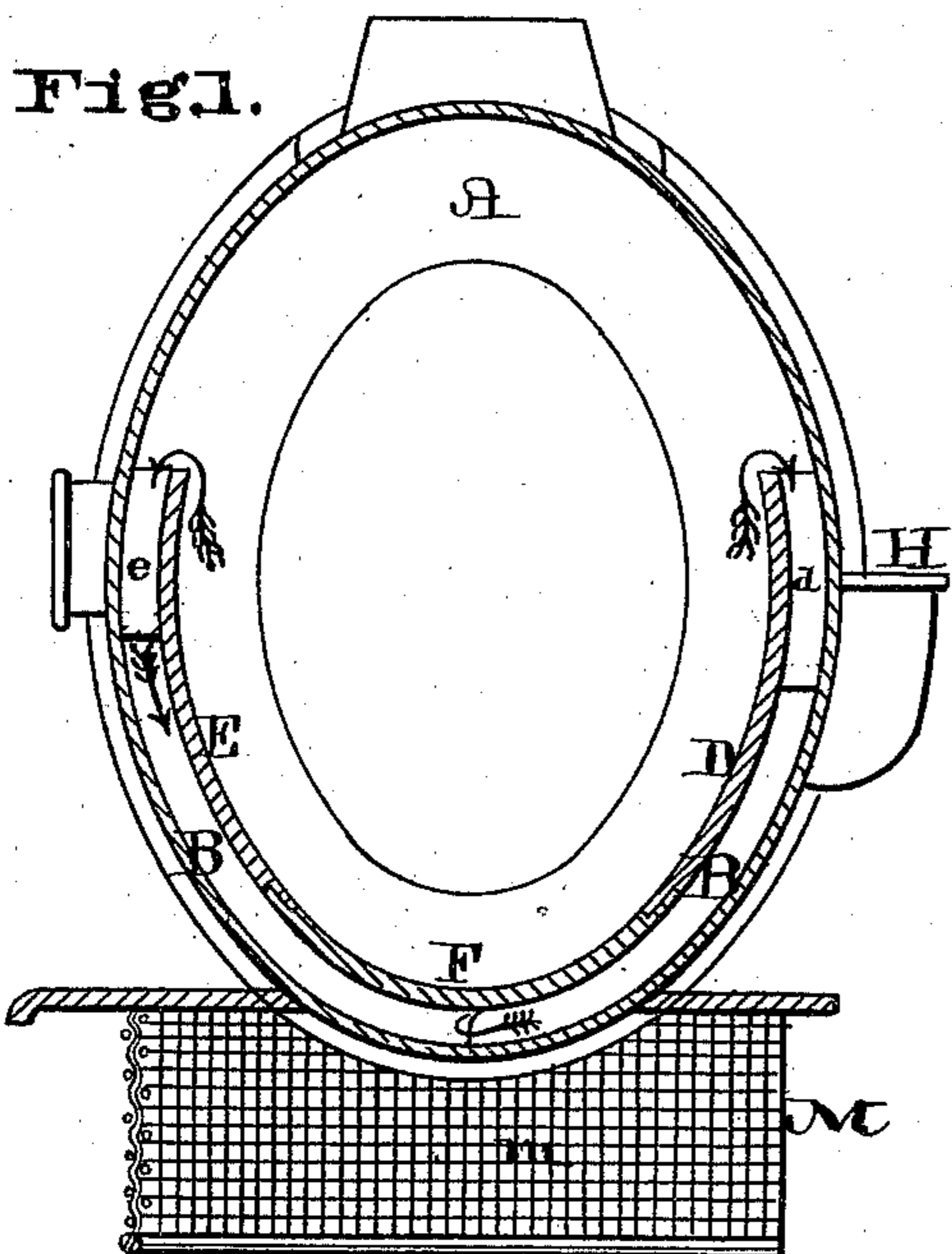
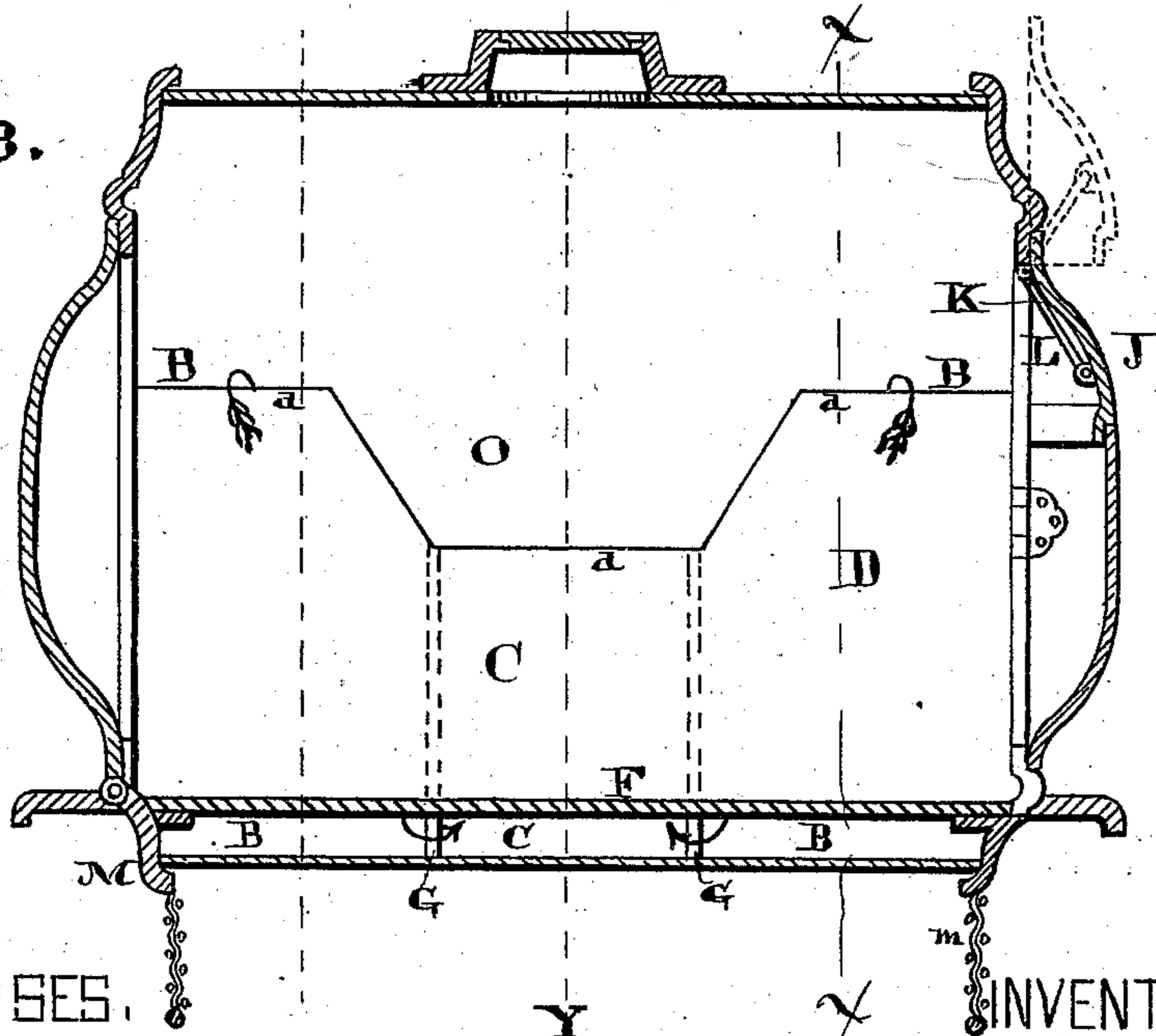


Fig. 3.



WITNESSES.

Saml. S. Boyd
Thos. S. Bowman

INVENTOR.

Chas. H. Blanchard
By Chas. D. Moody
atty

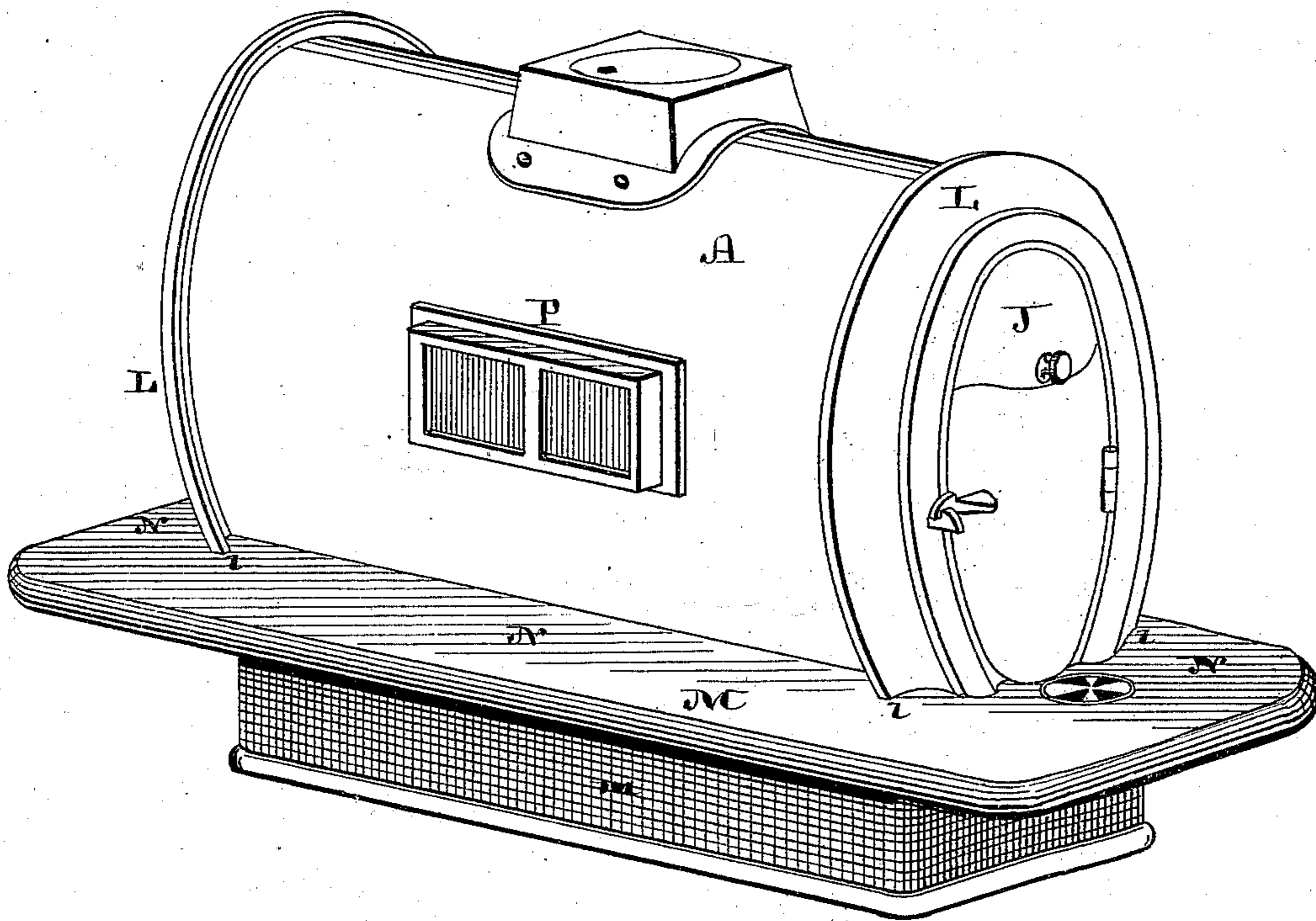
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Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES H. BLANCHARD, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **174,106**, dated February 29, 1876; application filed December 30, 1875.

To all whom it may concern:

Be it known that I, CHARLES H. BLANCHARD, a resident of the city and county of St. Louis, State of Missouri, have invented new and useful Improvements in Heating-Stoves, of which the following is a full, clear, and exact description, reference being had to the annexed drawing, making part of this specification, in which—

Figures 1 and 2 are cross-sectional elevations, taken, respectively, on the lines *xx* and *yy*, of Fig. 3, which is a central longitudinal elevation. Fig. 4 represents the stove in perspective.

Like letters indicate like parts.

The present invention relates to improvements in that class of wood heating-stoves known to the trade as the Todd pattern, the general construction of which class being a body oval in cross-sectional elevation, and provided with a flue extending throughout its bottom and partly up its sides, and through which flue the heated products of combustion can, by means of a suitable damper, be directed, if desired.

It has been customary to form the flue referred to by means of a plate whose shape conforms to the curvature of the body of the stove, and which is held in place by supports arranged at its ends or edges only. In consequence of this construction, the heat is concentrated in the central part of the stove and flue, causing the plate to give away at that point.

It is the aim of the present invention to obviate this difficulty by diffusing the heat more evenly throughout the stove, and especially over the side-lining plates, and also by strengthening the plates, substantially as is hereinafter set forth.

To this end (and as will be seen by referring to the accompanying drawing, where A represents a stove embodying my invention) I employ four diving-flues, B B B B, arranged respectively at the four corners of the stove, and which concenter at the central part of the bottom of the stove, and thence lead into an exit-flue, C, passing up the center of the back of the stove. D, E, and F represent the plates used to form the flues referred to. D

and E are the side-lining plates, and F the bottom plate. The former are similar in shape and are of the peculiar form shown in Figs 1, 2, and 3, being made with an indentation or depression, O, in the central part of the upper edge. These plates, also, are similarly and respectively provided with flanges *d d d* and *e e e*, which follow the line of the depression O, and, extending outward to the casing, serve as flue-strips and also to strengthen the side-lining plates at their weakest points. The plate D on that side of the stove where the escape is arranged is further provided, on its under side, with two flue-strips, G G, which extend, as shown in Figs. 1, 2, and 3, from the flange *d d d* down to the lower edge of the plate and beyond, and to the center of the stove bottom, being spaced sufficiently apart to form the exit-flue C. They also serve to strengthen the plate D, and also to support the bottom plate F.

In operation, the products of combustion can be diverted, as is usual, either directly out of the stove at H, or, by means of a suitable damper I, can be turned around the stove, and when thus directed, their course is down the four diving-flues to the central part of the bottom of the stove, and thence up the exit-flue to the escape, and as indicated by the arrows.

By this means all parts of the stove, as well as the plates, are heated evenly and throughout.

Another feature is the base M, upon which the stove rests. It is made to take the place of the ordinary stove-legs—that is, the stove-body rests upon the base, and the base directly upon the floor, and as shown. The base extends along the front and both ends of the stove-body and is detachable therefrom. For sake of ornament, and to lighten it, it is preferably made in the form of fret-work. It is also preferably provided with the hearths *n n n*. The stove-body is kept from turning in its bearings in consequence of the shoulders *l l l l* (with which the heads L L are furnished) coming against the hearths *n n*. A firm support is thus obtained.

A further advantage accruing from the peculiar shape of the side-lining plates D and

E within the stove is that, owing to the depression O therein, the window P can be brought down further in the side of the stove.

Having described my invention, what I claim is—

1. The combination of the stove A, plates D and E, flanges *d d d* and *e e e*, and strips G G, forming the four diving-flues B B B B, and the exit flue C, substantially as described.

2. The combination of the plates D E, depressions O O, and the flanges *d d d* and *e e e*, substantially as described.

3. The combination of the plates D and F and the strips G G, substantially as described.

4. The combination of the plate D, depression O, flanges *d d d*, and the strips G G, substantially as described.

5. The stove A, plate E, depression O, and window P combined, substantially as and for purpose set forth.

6. The combination of the stove A, base M, hearths *n n n*, and heads L L, provided with the shoulders *l l l l*, substantially as described.

CHARLES H. BLANCHARD.

Witnesses:

CHARLES D. MOODY,
SENECA N. TAYLOR.