No. 639,898

Patented Dec. 26, 1899.

E. H. HUENEFELD.

HEATING STOVE.

(Application filed May 3, 1899.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.

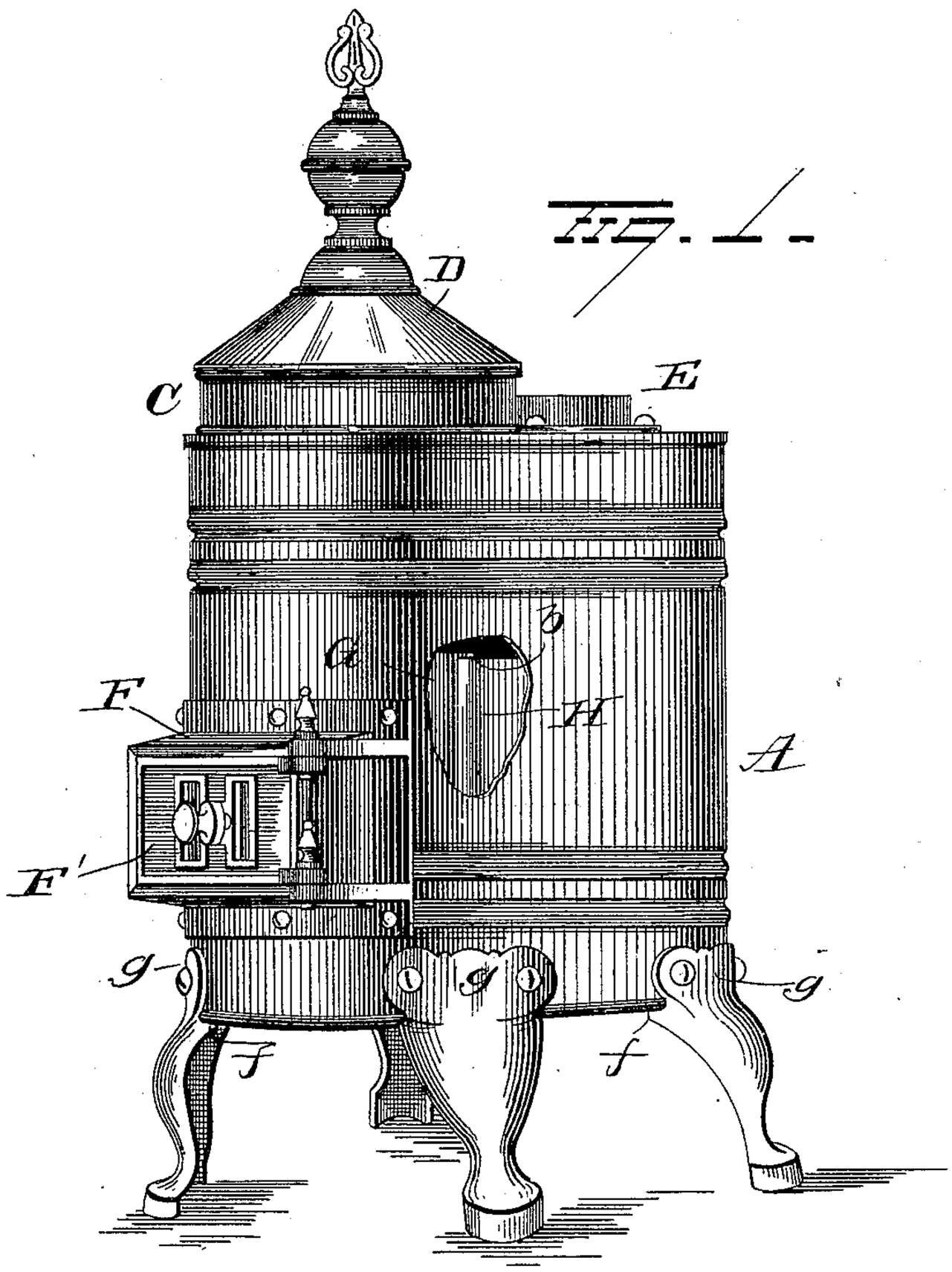
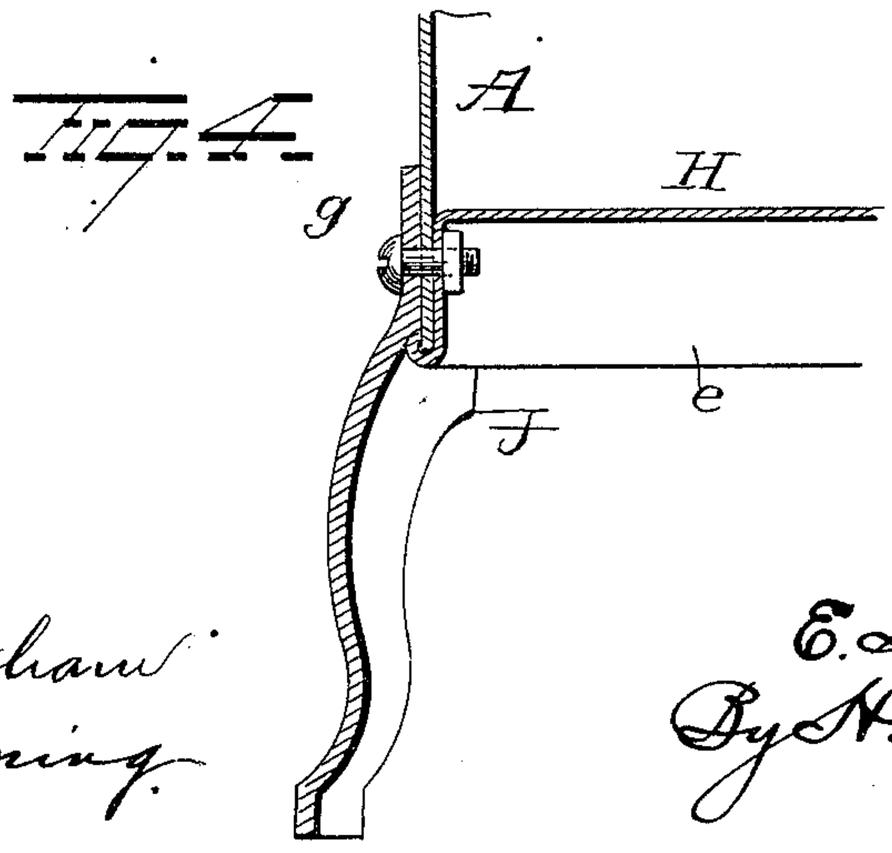


FIG. 4.



WITNESSES

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2 Sheets—Sheet 2.

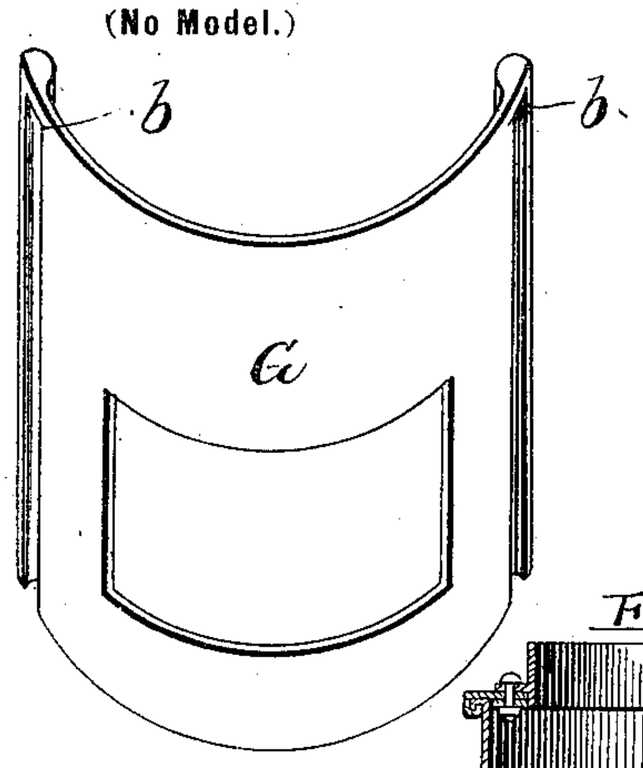

FIG. 5.

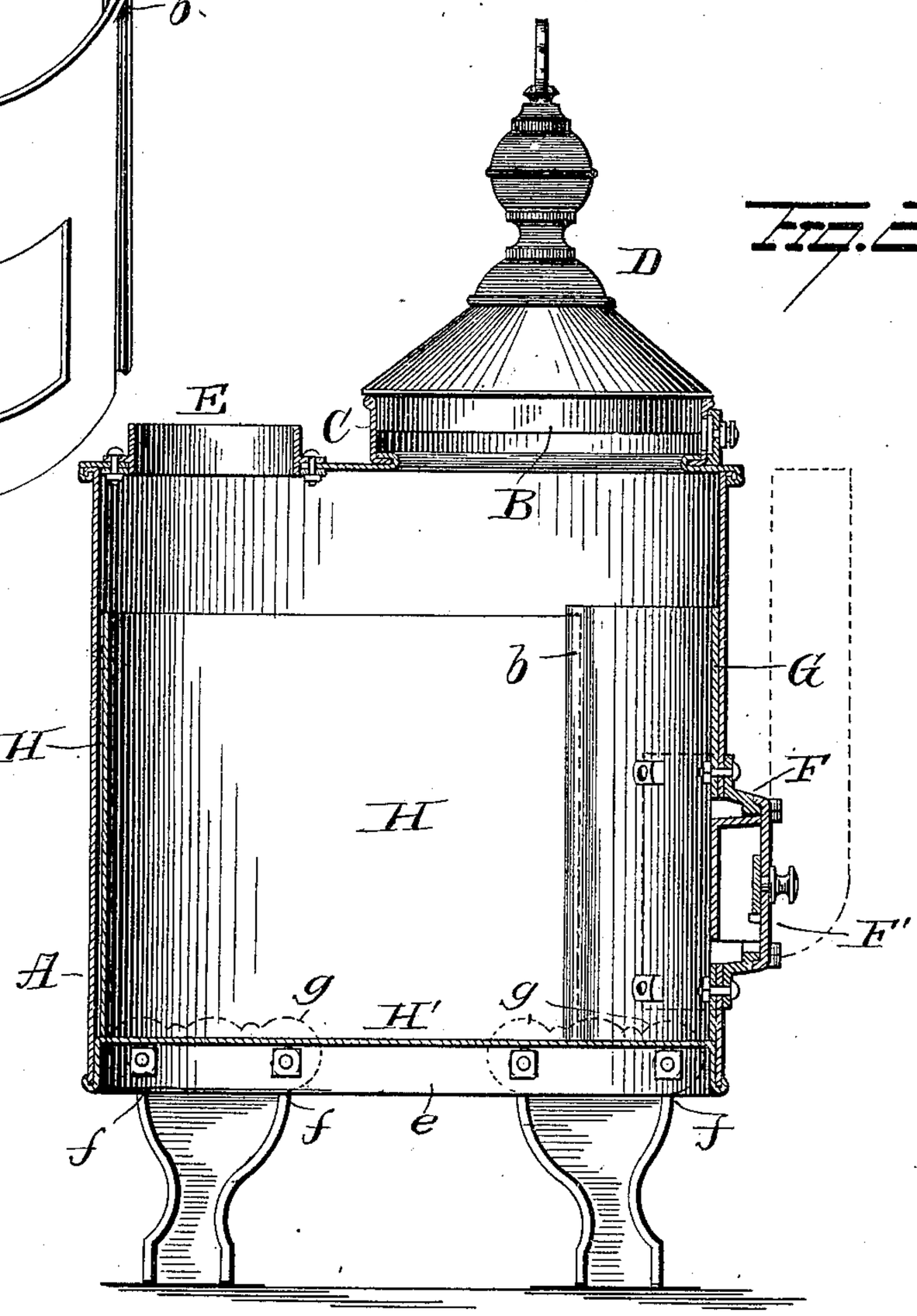

FIG. 2.

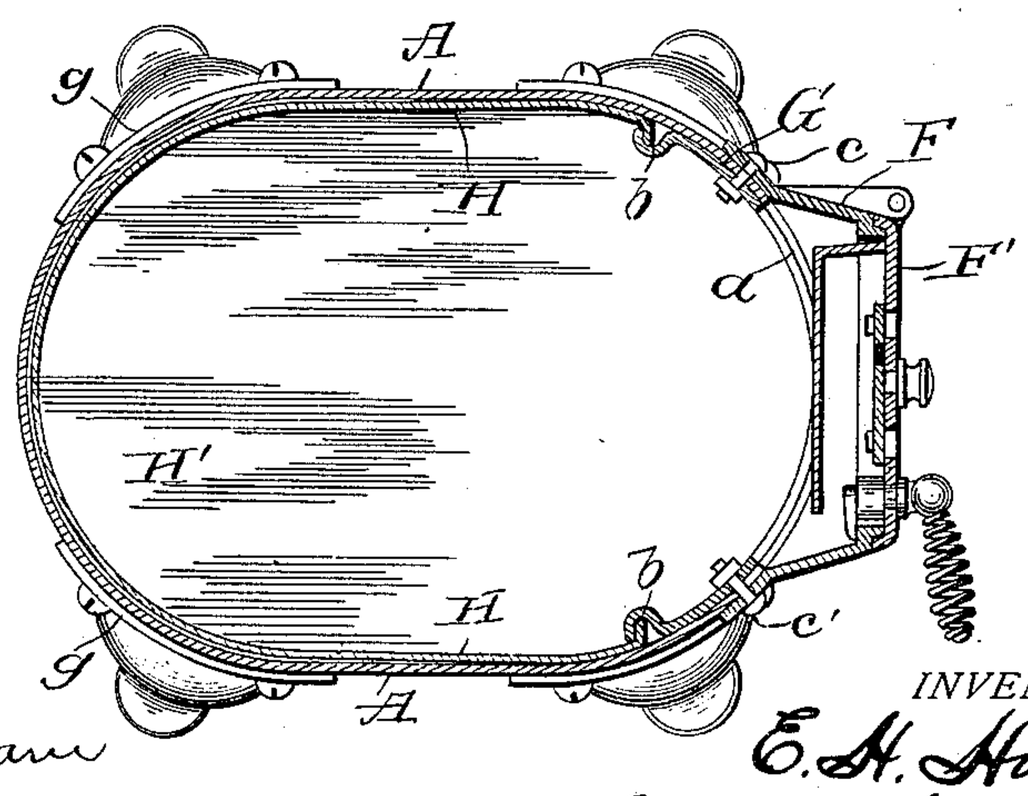

FIG. 3.

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UNITED STATES PATENT OFFICE.

ERNST H. HUENEFELD, OF CINCINNATI, OHIO.

HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 639,898, dated December 26, 1899.

Application filed May 3, 1899. Serial No. 715,446. (No model.)

To all whom it may concern:

Be it known that I, ERNST H. HUENEFELD, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Heating-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in heating-stoves, the object of the same being to provide simple and convenient means whereby the bottom and lining (either or both) of an ordinary sheet-metal stove can be quickly and readily removed for repairs or renewal when necessary.

A further object is to so construct the stove that the means for securing the legs in place also secure the removable bottom in position, so that upon the removal of the legs the bottom can be easily and quickly removed.

With these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a stove embodying my invention. Fig. 2 is a view in vertical section through the door-frame. Fig. 3 is a view in horizontal section. Fig. 4 is a view in section through a portion of the stove body, bottom, and leg; and Fig. 5 is a view in perspective of the reinforcing-plate, showing the grooves closed at their tops.

A represents a stove-body, preferably oval in horizontal cross-section and provided on its top with a fuel-opening B, surrounded by a collar C, adapted to form a seat for the cap D, and also provided on its top or rear side with a smoke-pipe collar E. The body and top of this stove are preferably made of sheet metal seamed together, and the body is provided at its front with an opening *a*, surrounded on the outside by the door-frame F, carrying the door F′, which latter may carry a damper or be provided with a downdraft-flue, (shown in dotted lines,) both of which features are well known in the art. The opening *a* in the body is reinforced on the inside by the cast or sheet metal plate G, which latter extends well up above the door-opening and is provided with an opening corresponding with said door-opening and which is also provided at its side edges with flanges or grooves *b*, adapted to engage the flanged front edges of the removable lining H. The flanges *b*, which are preferably integral with the reinforcing-plate, extend to the top of the latter, and the recesses formed by the flanges may be closed at the top, as shown, so that when inserting a lining in the stove it is simply necessary to place its flanged ends under the flanges *b* and force it inwardly until it abuts against the closed ends of the recesses. This reinforcing-plate G is curved to conform to the contour of the inside of the front of the stove and is secured in place by the bolts *c*, which latter secure the door-frame in place. This plate G not only serves to hold the lining in place, but protects the front of the stove from the heat, which is most intense around the draft-opening. The bottom H′ is made, preferably, of sheet metal and is provided at its edge or circumference with a depending flange E, the lower edge of which is turned outwardly, so as to rest under or underlap the lower edge of the body. The flange *e* is shaped to conform to the internal contour of the lower end of the body of the stove and rests within said lower end, thus bringing the bottom of the stove in a plane above the lower edge of the body. The stove thus constructed is supported on legs, each of which is provided with shoulders *f*, adapted to rest under and support the outwardly-turned flanged edge of the bottom and also the lower edge of the body, which rests on said outwardly-turned flange. Each leg is also provided with an upwardly-projecting flange *g*, curved to conform to the contour of the outer face of the lower edge of the body and resting against said outer face, the legs, bottom, and body being secured together by bolts passing through the flange *g* of the legs, through the body, and through the depending flange of the bottom. With this construction it will be seen that these bolts and their nuts are exposed. Hence by removing the bolts the legs and bottom can be removed, and when the bottom is removed the lining H, which is preferably made of a single piece of sheet metal, can be conveniently withdrawn through the bottom and replaced in the same manner. This method of

securing the legs and bottom to the body is inexpensive and at the same time overcomes a great objection to the air-tight sheet-metal stoves now in common use in that it provides means whereby the bottom and lining can be removed at slight cost.

In the stoves now in use the bottoms and tops are either riveted or seamed to the body. Hence when the bottom or body burns out or is punctured by the careless feeding of logs the stove becomes useless and must be discarded. With my device the lining and bottom, which are the only parts subjected to wear, can be removed and replaced at slight cost. Again, by securing the legs to the outside of the body and providing them with shoulders which take under the bottom the weight and strain fall directly on the vertical side walls of the body instead of on the sheet-metal bottom. Again, by providing the bottom with a depending flange having an outwardly-turned edge the latter forms a seat for ashes, thus forming an air-tight joint between the bottom and body.

While I prefer to make the lining in one continuous piece, and by "continuous" I mean composed of a single sheet of metal or a plurality of sheets riveted or otherwise secured together before its introduction into the stove, still the lining may be formed in sections and introduced through the feed-opening in the top and then secured together by bolting or riveting the meeting edges to the back of the stove-body.

It is evident that many slight changes might be resorted to in the relative arrangement of parts herein shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to limit myself to the exact construction shown and described; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a stove, the combination with a body, of a bottom having a depending flange and legs secured against the outer face of the body of the stove, the leg-securing devices passing through the legs, body and depending flange of the bottom.

2. In a stove, the combination with a body, of a bottom having a depending peripheral flange, legs, the upper ends of which rest against the outer face of the body, shoulders integral with said legs and adapted to rest under the lower edge of said flange and lower edge of the body, and bolts passing through said legs, body and flange.

3. In a stove, the combination with a body, of a removable bottom having a depending peripheral flange, the latter having an outwardly-turned edge adapted to underlap the lower edge of the body, and legs secured against the outer face of the body, the securing devices passing through the legs, body and depending flange of the bottom.

4. In a stove, the combination with a body, of a removable bottom having a depending peripheral flange the latter having an outwardly-turned edge adapted to underlap the lower edge of the body, legs secured against the outer face of the body and provided with inwardly-projecting shoulders adapted to rest under the lower edge of the body, and bolts passing through the legs, body and flange of the bottom.

5. In a stove the combination with a body having a door-opening in its front, a reinforcing-plate rigidly secured to the inner face of said front and provided with an opening corresponding to the door-opening in the body, the said reinforcing-plate being provided at its side edges with grooves or recesses the latter being closed at their upper ends, of a loose removable lining, the ends of which enter said grooves or recesses and a bottom removably secured to the body of the stove, substantially as set forth.

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

ERNST H. HUENEFELD.

Witnesses:
J. R. CARTER,
MATT. J. DAY.