

(No Model.)

3 Sheets—Sheet 1.

S. C. HULBERT.
STOVE BASE.

No. 597,416.

Patented Jan. 18, 1898.

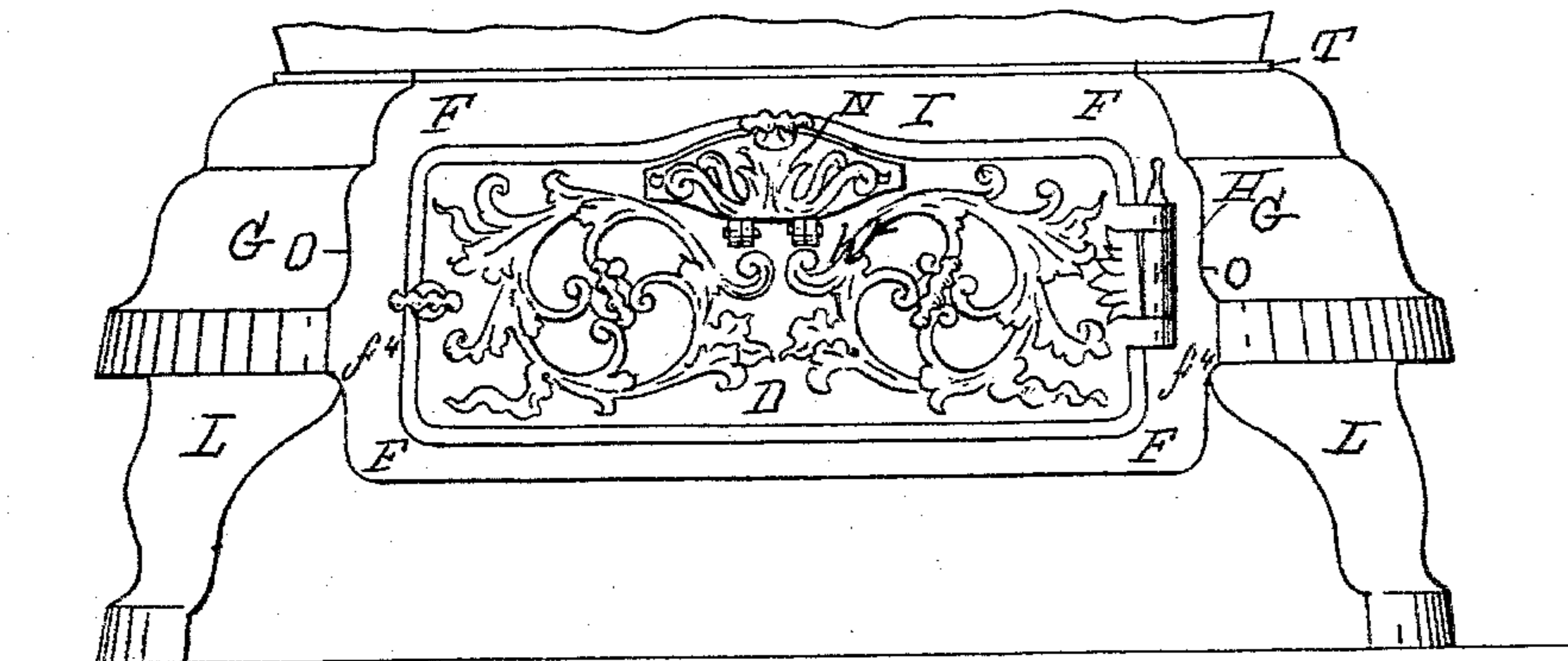


FIG 1

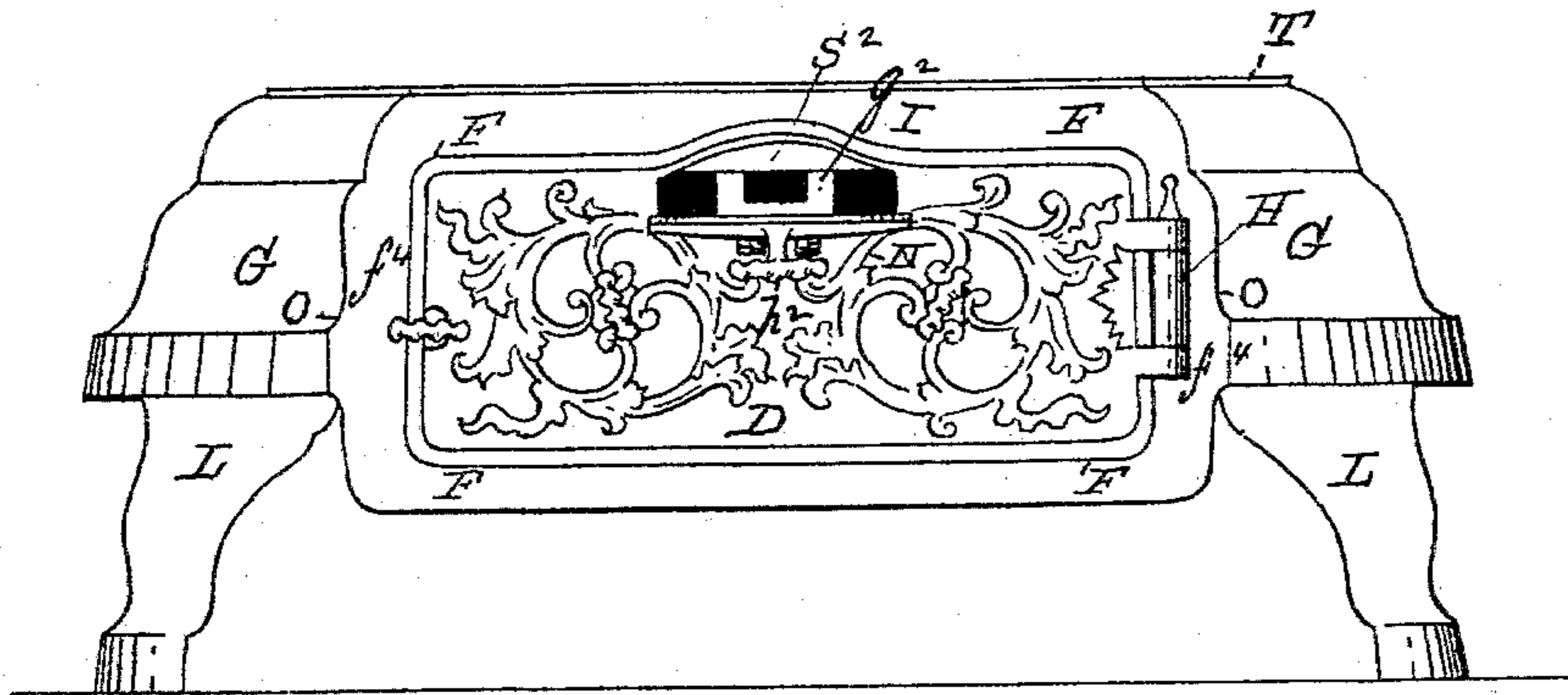


FIG 2

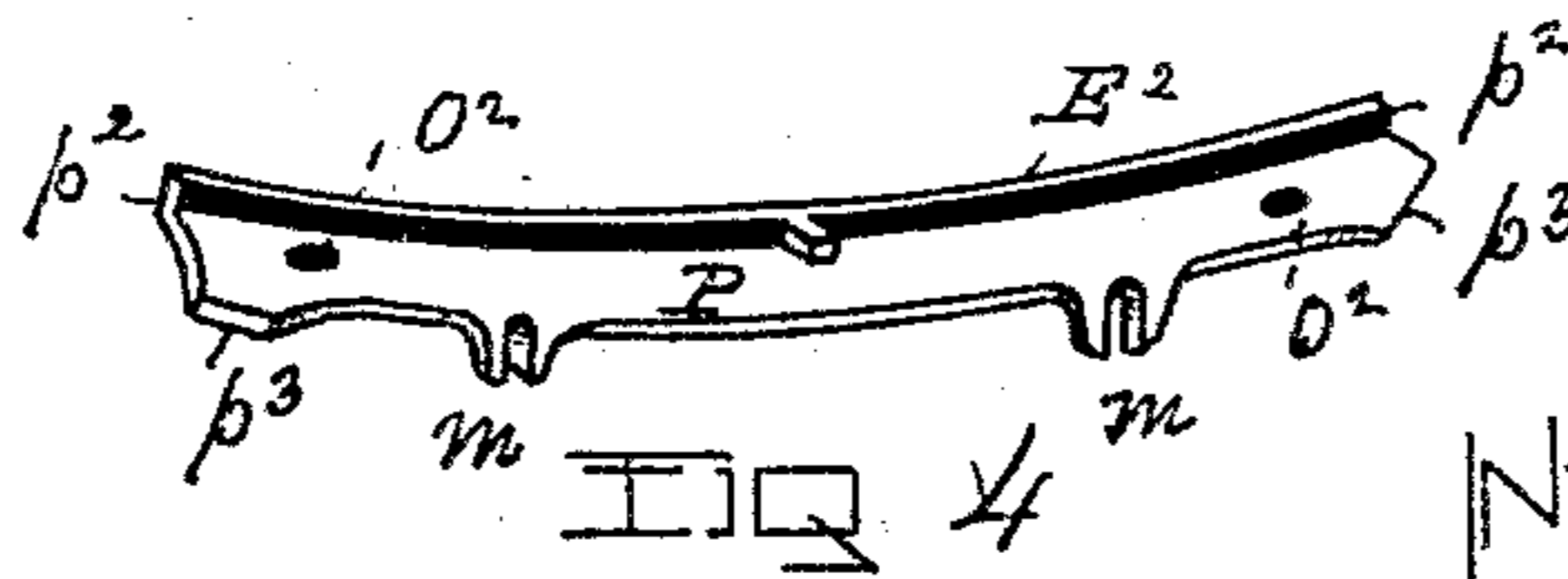


FIG 4

WITNESSES

William A. Sweet
Charles S. Printzall

INVENTOR

Seymour C. Hulbert
by W. C. Hagan
Atty

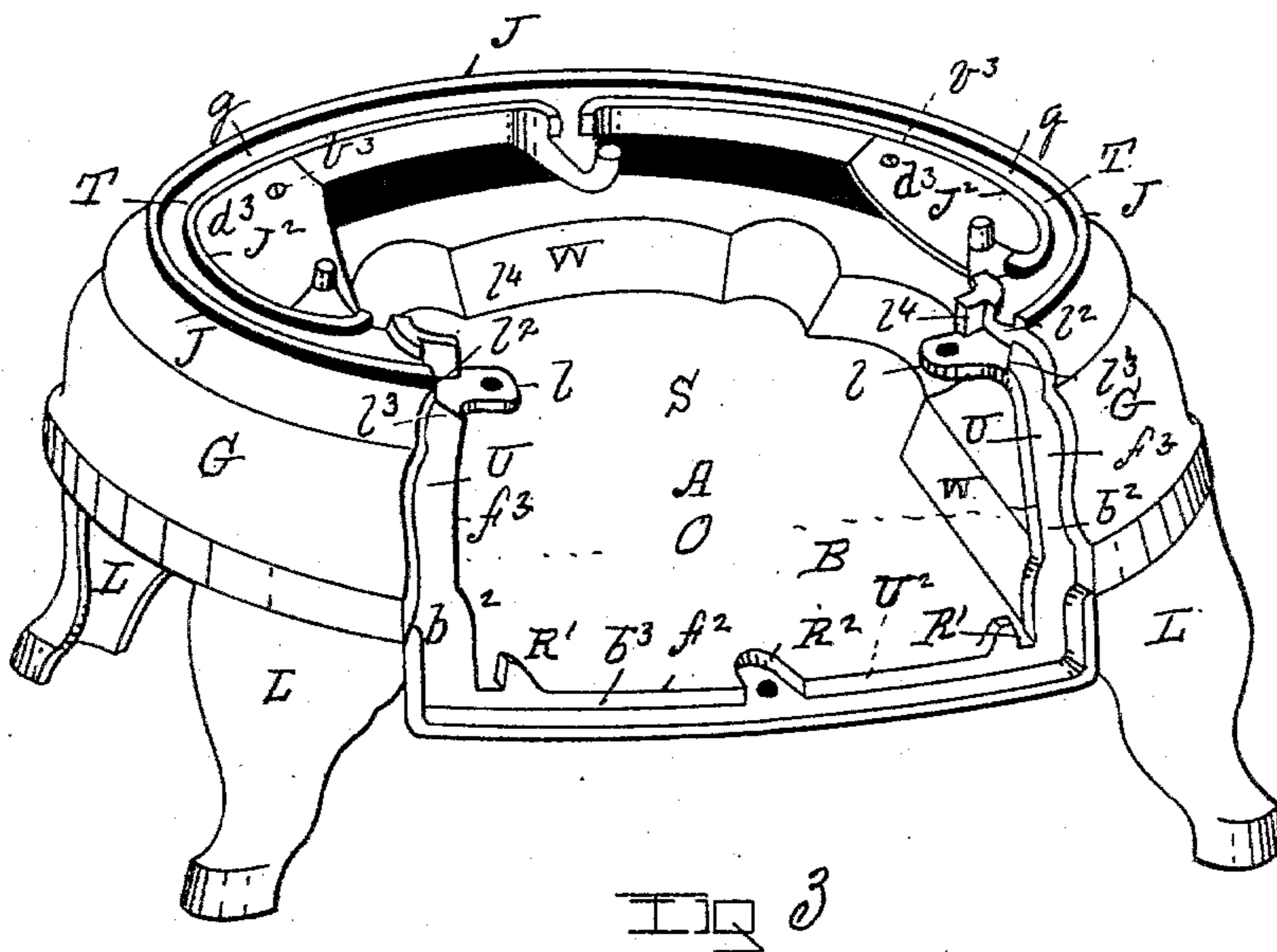
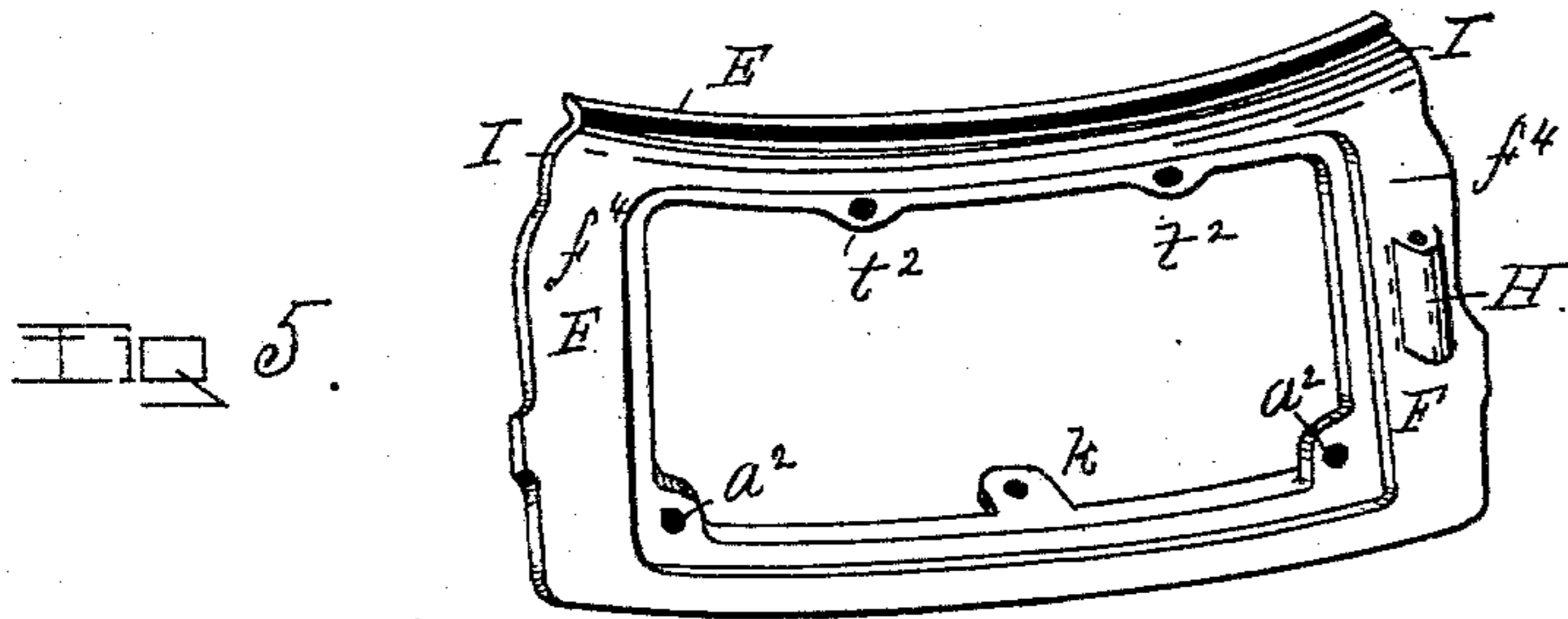
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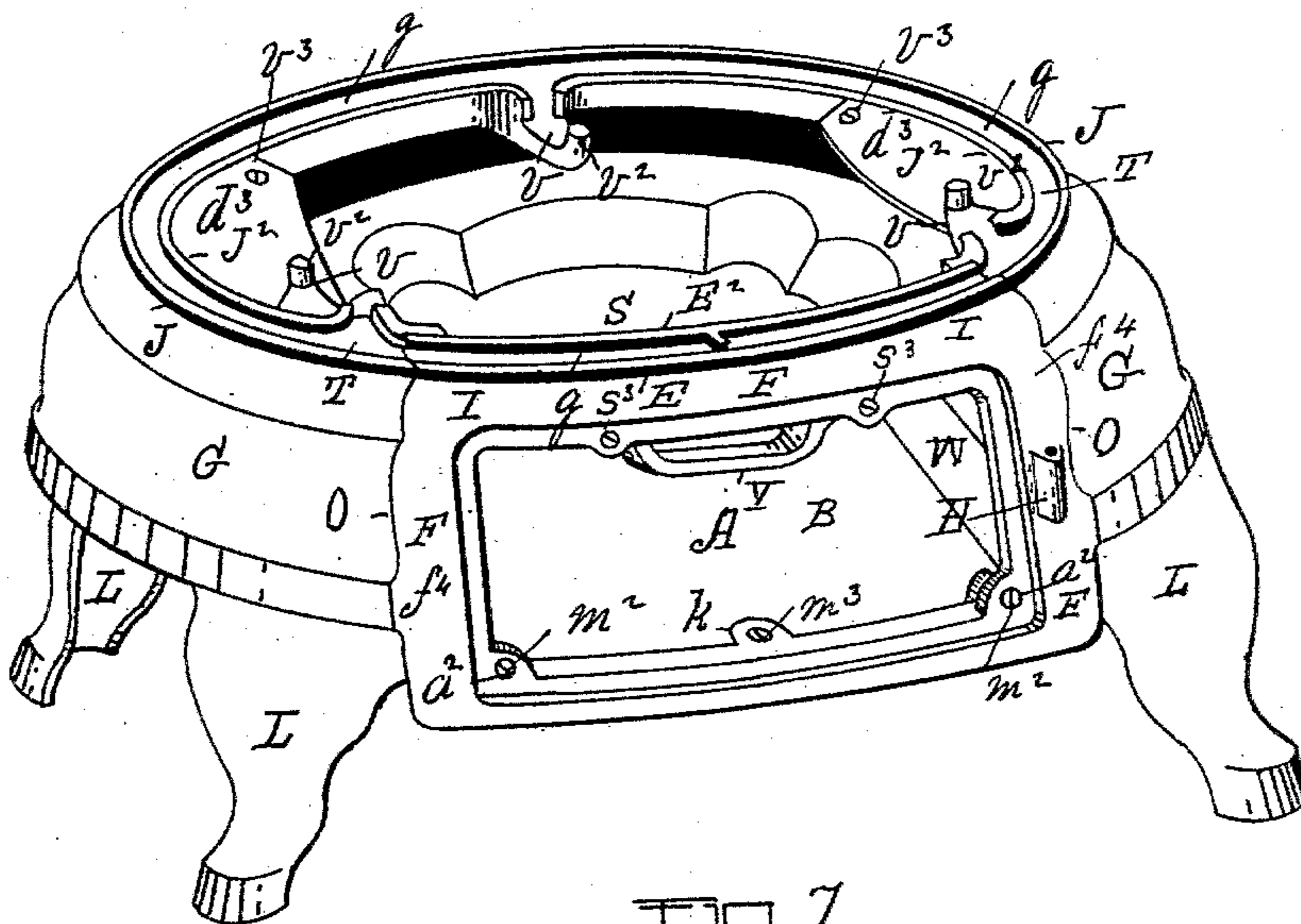
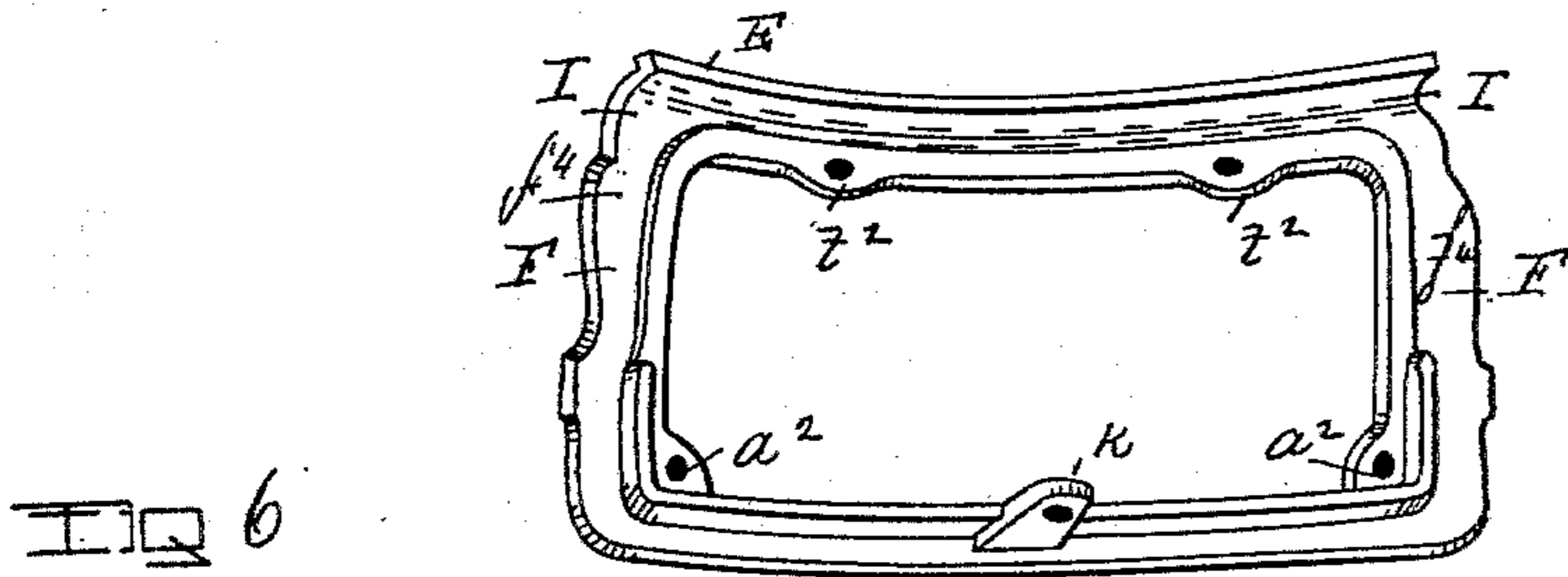
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Charles S. Brintnall

INVENTOR

Seymour C Hulbert
by W. E. Hagan atty

UNITED STATES PATENT OFFICE.

SEYMOUR C. HULBERT, OF GENEVA, NEW YORK, ASSIGNOR TO THE
PHILLIPS & CLARK STOVE COMPANY, OF SAME PLACE.

STOVE-BASE.

SPECIFICATION forming part of Letters Patent No. 597,416, dated January 18, 1898.

Application filed June 1, 1897. Serial No. 638,907. (No model.)

To all whom it may concern:

Be it known that I, SEYMOUR C. HULBERT, of the village of Geneva, county of Ontario, and State of New York, have invented new and useful Improvements in Stove-Bases, of which the following is a specification.

My invention relates to an improved construction of that part of heating-stoves which is termed the "base" and which contains the base-top, in which the grate and fire-pot are mounted and to which the lower end of the combustion-chamber is attached, and which base part also contains the ash-pit and the ash-pit drawer and has an apron which roofs in the ash-pit part of the stove.

As heretofore made stove-bases have been produced from several pieces, cast separately and mounted together, and they have also been produced by casting in one piece a down-curved overhanging skirt together with the base-top and ash-pit and so molded as to inclose the sides and the bottom and top of the opening formed in the base-front to receive the frame in which the ash-pit door is mounted. To improve upon these older methods of constructing stove-bases, I form the base-top, the apron, and ash-pit in one casting, with the latter so molded as to form the two sides and bottom of an open-top doorway for the ash-pit door, and to complete the latter I employ a separately-cast top plate constructed to connect at its ends with the base-top, with the ash-pit door-frame constructed to connect with the sides and bottom of the opening and with the separately-cast top plate, so as to overlap the top of the latter. As thus produced the integrally-formed base parts, consisting of the ash-pit and the two sides and bottom of an open-top doorway for the ash-pit door, the base-top, and apron, can be cast without the use of a specially-made flask, and the contingency of occasionally losing a casting in the sand is avoided, while the top part of the base-door opening when made separately and attached perfectly secures the parts, and in its connection it can be so applied as to correct such measure of warping as may have occurred in the cooling of the casting and thus facilitate the mounting of the ash-pit door-frame and door within the opening formed to receive it.

Accompanying this specification, to form a part of it, there are three plates of drawings, containing seven figures, illustrating my invention, with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 is a front elevation of my improved stove-base with the swing-down door of the shaker-opening shown as closed. Fig. 2 is a view of the same parts that are shown at Fig. 1 with the swing-down door of the shaker-opening shown as open. Fig. 3 is a perspective of my improved stove-base with the overhanging apron forming its down-curved exterior above the ash-pit formed integrally with the latter and so as to produce at the front of the base the two sides and the bottom of the open-top doorway for the ash-pit door. Fig. 4 is a perspective of the separately-cast top plate which, when in position within the base, forms the top of the doorway, having its sides and bottom cast integrally with the base, and in this illustration shown as detached. Fig. 5 is a perspective of the ash-pit door-frame with what is its front shown as facing the view. Fig. 6 is another perspective of the ash-pit door-frame with what is its inner face when in position within the base shown as facing the view. Fig. 7 is a perspective of my improved stove-base with the separately-cast top plate of the ash-pit door-frame in position within the base, with the ash-pit door-frame inserted within the opening.

The several parts of the apparatus thus illustrated are designated by letter reference, and the function of the parts is described as follows:

The letter A designates the ash-pit, having the side walls W, which latter, in connection with the bottom B, form the sink S in the ash-pit bottom, as shown at Figs. 3 and 7.

The letters G designate the apron of the stove-base, and this apron is preferably circular in form in its lateral extension, and from where it unites with the top of the base it is made to project downwardly and outwardly in curved contour, so that at its lower edge it will overhang the ash-pit exterior.

The letters O designate the opening in the base to receive the ash-pit door-frame and door, which is located in the front of the

base with that part of the latter forming the bottom of the opening and designated at f^2 , having the rabbeted edge b^3 and that part of the base inclosing the sides f^3 of the opening having the rabbeted edge b^2 .

The letters R designate bolt-lugs formed at each end of the base part forming the bottom of the opening O, and the letters R^2 designate a lug-seat or bolt-ear formed in the opening bottom f^2 to project inwardly therefrom.

The letters l designate ledges or shelves, of which there is one at each of the upper corners of the opening O, and each of these shelves or ledges is projected inwardly over the opening O at the top of the latter, and they are each rabbeted at l^2 , where joined to the base-top, and at l^3 they are each rabbeted to the rabbeted edge b^2 at each side of the opening O.

The letter l^4 designates a lug which is upwardly projected from the inner edge of each of the ledges or shelves with each of the latter provided with a vertical bolt-passage a .

The letters P designate the separately-cast top plate employed to connect with the base and inclose the top of the opening O, and the letter E designates an upcast rim or flange formed on the inner edge of said top plate, the function of which rim or flange will be explained hereinafter. At each of its ends this top plate is made angular at p^2 and p^3 , so that when applied to the base to complete the formation of the opening O by its insertion in and attachment to the base its angular part p^2 will abut against the rabbeted edge of the top T at l^2 at each side of the opening, and the angular parts p^3 of the top plate at each end of the latter will abut against the rabbeted edge b^2 , formed in each of the opening sides f^2 .

The letter m designates stove-bolt lugs projected from the outer edge of the top plate P, through which lugs bolts are passed to connect the ash-pit door-frame with the top plate, and the letters O^2 designate bolt-passages in each end of the top plate P, which when the latter is entered upon the ledges or shelves l these bolt-passages will register with the bolt-holes made in the ledges for the insertion therein of bolts connecting the top plate P with the ledges or shelves of the base, and thus complete the formation of the opening O.

The letter F designates the frame of the ash-pit door, and the letter D designates the ash-pit door, which is hinged at H to one of the frame sides. This frame F at its sides f^4 is given a contour corresponding to that of the apron G, and it is made with an incurve I at its upper end, whereby when placed within the opening O its upper incurved edge will overlap the outer edge of the top plate P to rest on the top of the latter.

The letter E designates a ring part or flange which is upcast from the inner edge of the inturned top part I, and which when the frame is in position within the opening O this ring part or flange E will join the ends and com-

plete the ring J, which is upcast from the base-top T, and the upcast ring part or flange E^2 of the top plate P will be in line with the upcast ring part J^2 , which is also upcast from the top T inside the ring part J, and so as to form with the ring part J^2 the intermediately-arranged annular groove g , in which the firepot of the stove is mounted.

The sides of the door-frame F when entered within the opening O will abut against the edge of the rabbet b^2 , and the bottom edge of the door-frame will abut against the edge of the rabbet b^3 , formed in the base at the bottom of the opening O, with the inside edges of the door-frame at the sides of the latter resting upon the underlap U of the rabbets b^2 and the inside bottom edges of the frame will rest upon the underlap U^2 of the rabbet b^3 . To secure the frame within the opening O and firmly connect it with the base, stove-bolts m^2 are passed through the bolt-passages a^2 , formed in the frame F at the bottom corners thereof and also between the lugs $R' R'$ arranged in the base at the bottom of the opening O, to be secured therein by nuts straddling the lugs, and a bolt m^3 , connecting the bolt-ear k with the lug R^2 on the frame-bottom, with stove-bolts passing through the top of the door-frame bolt-passages $l^2 l^2$ to enter the lugs $m m$, formed in the top plate P.

The letters L designate the stove-legs, on which the base is supported, and they connect with the base in the usual manner.

The letters N designate the shaker-door, which at its lower edge h^2 is hinged to the exterior of the door D, immediately below the shaker-opening S^2 , formed in the upper part of the door.

The letter Y designates a yoke which at its ends is secured to the inner face of the door D by means of screw-bolts s^3 and at each side of the opening S^2 , and between its ends where extended downwardly it is made to extend laterally, so as to be in line with the bottom of the opening S^2 to form a support for the grate-shaker when entered through the opening S^2 to engage with the end of the shaking bar g^2 .

The letters v designate shelves which are integrally cast with the base, and they have upwardly-projected pins v^2 and are arranged to receive the ring in which the stove-grate is mounted.

The letters $d^3 d^3$ designate plates which are arranged on the inner edge of the top T, and these plates are made separately from the base and are connected thereto by screw-bolts v^3 . These plates support the grate-ring and act as ash-deflecting plates.

A stove-base having its apron, together with its ash-pit, cast integrally with the front opening for the ash-pit door-frame having its sides and bottom formed in the apron and ash-pit at the front, with this opening so inclosed at the bottom and sides and continued up through the base-top, to be completed by the insertion and connection of the ash-pit

door-frame by means of the interposition of the plate P, with the latter and the top of the door-frame connecting with the omitted parts of the rings J and J², so as to complete the latter, as herein shown and described, greatly facilitates the proper mounting of the door-frame, simplifies the molding of the parts, and makes the chances of losing the castings in the sand much less than where the top as well as the bottom of the opening O are all made integrally with the ash-pit and the apron.

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

1. The combination with a stove-base having its apron, ash-pit, and top cast in one piece, said base being cast with an open-top doorway opening for the ash-pit door, and provided with a ledge at the top of each side of said doorway-opening; of a separately-cast top plate constructed to connect at each of its ends with one of the ledges at each side, and at the top of said doorway-opening substantially as shown and described.

2. The combination with a stove-base having its top, its apron and ash-pit cast in one piece and so as to inclose at the front the bottoms and sides of an open-top doorway for the ash-pit door, of a top plate separately cast, and constructed to connect with the base at each side of said doorway by means of ledges formed in the base thereat, and thus form the top of said doorway, and an ash-pit door frame provided with an inturned upper edge, with said frame constructed to be entered within said doorway and thereat connected to said base, with the inturned edge of said door-frame overlapping said top plate to rest thereon and connected thereto substantially as and for the purposes set forth.

3. The combination with a stove-base having its top, its apron, and ash-pit cast in one piece, and so as to inclose at the base-front the sides and bottom of an open-top doorway for the ash-pit door, and having a ledge or shelf projected inwardly from the top of the apron at each side of the doorway, with the latter provided at its sides and bottom with rabbeted edges; of a separately-cast top plate constructed to connect at each of its ends with one of said ledges, and thus form the top

of said doorway; and a door-frame constructed to be entered within said doorway and to have its bottom and sides abut against the rabbeted edges of the doorway and to have its upper edge overlap the inserted top plate and be connected thereto, substantially in the manner as and for the purposes set forth.

4. The combination with a stove-base having its top, its apron, and ash-pit cast in one piece, and so as to inclose the sides and bottom of an open-top doorway for the ash-pit door, with the rings in the top plate immediately forming the fire-pot seat continued to the edges of the doorway; of a separately-cast top plate constructed to connect with the sides of said doorway at the top of the apron; said top plate having an upcast inner edge which when said top plate is connected to the base will be in circular alinement with the inner ring part of the fire-pot groove; and a door-frame having upon its upper edge an upcast flange which when said door-frame is inserted in and connected to the sides and bottom of said doorway and said top plate the flange part of said door-frame will form a continuation of the outer ring of the fire-pot groove substantially as shown and described.

5. The combination with a stove-base having its apron G, its ash-pit A, and top T, having the upcast ring parts J, and J², and ledges l, all cast in one piece, and so as to inclose at the base-front the sides f³, and bottom f², of the opening O; of the separately-cast top plate P, constructed to connect with said ledges, and having the upcast ring part E², which latter will be in circular alinement with the ring part J², when said top plate is attached to said base; and the door-frame F, having the inturned edge E, with said frame constructed to be attached to said base within said opening O, with its inturned part I overlapping said top plate P, and connected thereto, and its ring or flange part E, abutting against the ends of the ring part J, substantially as and for the purposes set forth.

Signed at Geneva, New York, this 23d day of March, 1897, in the presence of the two witnesses whose names are hereto written.

SEYMOUR C. HULBERT.

Witnesses:

HORACE WEBSTER,

GEO. F. ANNAS.