

(No Model.)

3 Sheets—Sheet 1.

W. J. KEEP. STOVE.

No. 527,751.

Patented Oct. 16, 1894.

Fig. 6.

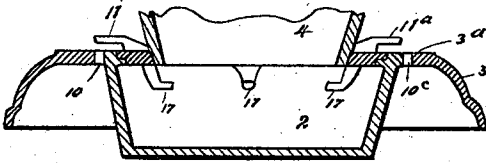


Fig. 1.

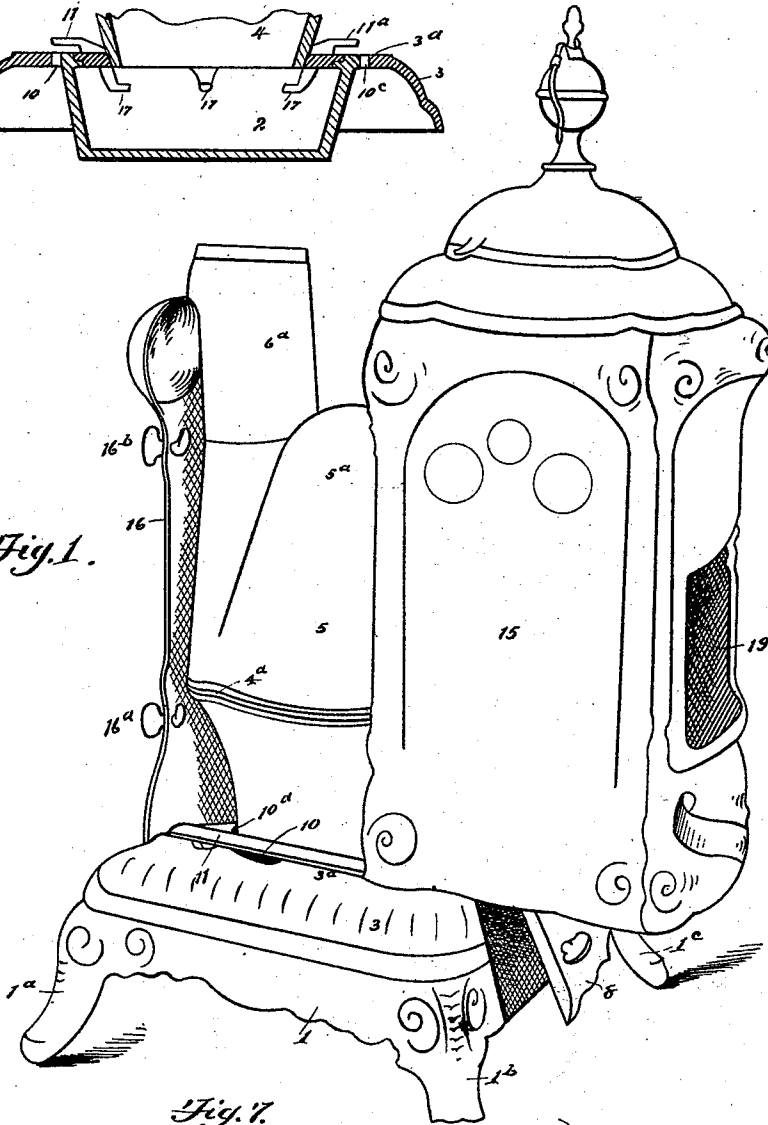
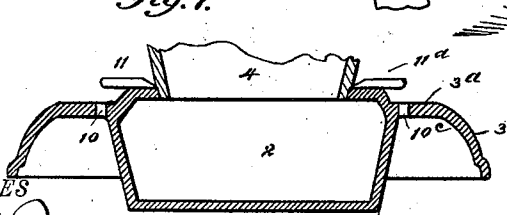


Fig. 7.



WITNESSES

Marion C. Reever
L. H. Bradford

INVENTOR

William J. Keep

By *Parker & Weston*

Attorneys.

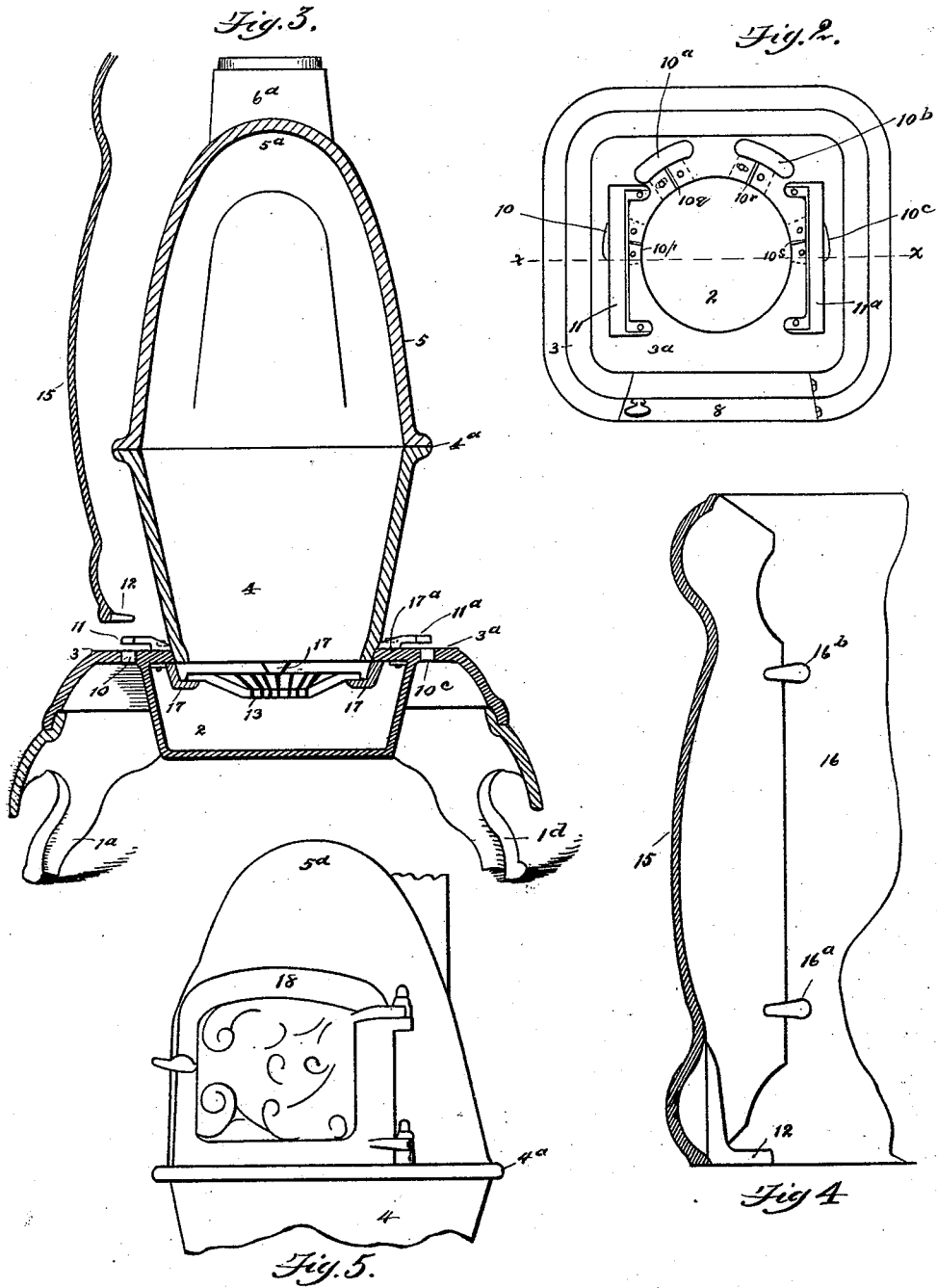
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WITNESSES
 Marion A. Reev.
 D. H. Bradford

INVENTOR
 William J. Keep
 By Parker & Weston.
 Attorneys.

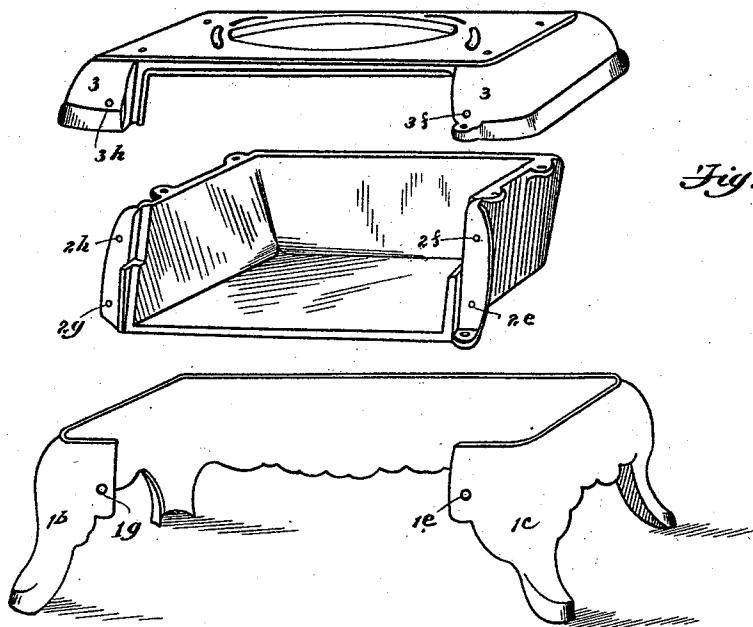
(No Model.)

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STOVE.

No. 527,751.

Patented Oct. 16, 1894.



WITNESSES
W. H. Bradford
J. Clough

INVENTOR
William J. Keep
By *Parker and Burton,*
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM J. KEEP, OF DETROIT, MICHIGAN, ASSIGNOR TO THE MICHIGAN STOVE COMPANY, OF SAME PLACE.

STOVE.

SPECIFICATION forming part of Letters Patent No. 527,751, dated October 16, 1894.

Application filed June 21, 1894. Serial No. 515,236. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. KEEP, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Stoves; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain improvements in heating stoves of that class in which there is an inner casing comprising a firepot, a dome above the firepot under which there is a suitable ash pit, and an outer casing ornamental in character, but of which one purpose is to produce a flow of air from beneath the stove near the floor upward alongside of the firepot and between the inner casing and the outer casing where the air becomes heated, and thus produce a circulation of air in the apartment in which the stove is situated.

The invention relates to certain details of construction of the inner casing and the ash pit, and to certain means of removably attaching the outer casing to the inner parts in a way such that the outer casing may be readily removed without disassembling the several parts in the way common in stoves of this class, differing essentially in this respect from the construction shown and described in Patents Nos. 499,306 and 516,617, both of which relate to stoves somewhat similar in character.

In the drawings, Figure 1 shows the stove in perspective, with the ornamental cover or outer casing drawn partly forward and off from the supporting base. Fig. 2 is a plan of the base. Fig. 3 is a vertical section along the line $x-x$ of Fig. 2. In Fig. 3 only one side of the outer or ornamental case is indicated, and it is shown as raised slightly above the position that it occupies when the parts are assembled. Fig. 4 indicates the manner of connecting the sides of the ornamental casing to the back panel when the stove is assembled. Fig. 5 shows the door hung to the dome. Fig. 6 shows a modified shape of

the base. Fig. 7 shows a second modified form of the base. Fig. 8 shows the ash pit, ash pit frame and leg-base, the parts being separated from the position they occupy when assembled.

1 indicates the base or leg frame. This consists of the four legs proper, 1^a , 1^b , 1^c and 1^d (seen on Fig. 3), bolted to the four corners of the base and connected by ornamental strips at the sides and rear. At the front, and apparently completing the base and front strip which joins the legs 1^b and 1^c , is a door 8 made to conform in appearance to a strip and to that portion of the ash pit frame which lies above the strip.

2 indicates the ash pit, from the upper edge of which extends outward on the two sides and at the rear a flange 3 which extends for a distance in a tabular form, and then bends downward to engage with and rest upon the upper edge of the leg base. On the front, this flange 3 turns the corner at each side, and extends as far from either side toward the central line as the portions of the leg base extend inward on the front, so that the inner edge of the leg frame and of the flange united form the side posts of the door frame of the door 8.

The bottom of the door frame is formed by the bottom of the ash pit 2, and the top of the door frame is formed by the edge of the tabular part of the flange 3 which extends from side to side across the front. Bolts passing through the holes 1^e , 2^e , and 1^f , 2^f , secure the ashpit and leg-frame together, and bolts passing through the holes 2^g , 3^g , and 2^h , 3^h , secure the ashpit to the front of the flange 3. The upper rim of the ashpit is secured to the tabular part of the flange 3, by suitable bolts or it may be cast integral therewith. The ash pit thus formed presents at its opening behind the door 8 a perfectly flat tabular base, upon which the ash pan can be placed, while the ash pan itself is retained in a horizontal position. The ash pan can thus occupy the full depth of the ash pit, and need not be tipped or canted in placing it in, or drawing it from, the ash pit. Through the tabular part 3^a of the flange 3, and within the lines of the outer casing 15, is a number of holes, 10, 10^a , 10^b , 10^c , shown in Fig. 2 as four

in number, although the number may be more or less, as may be desired, the object being to furnish a free communication through the tabular part of the flange 3 between the cavity underneath the stove and the space between the combustion chamber and the exterior casing. From each of the holes, 10, 10^a, 10^b, 10^c, a slot leads to the central opening into the ash pit, the object being to give to that part of the base which comes into immediate contact with the fire pot freedom to expand and contract. The slots are closed and the base strengthened by tie plates 10^p, 10^q, 10^r, 10^s, and the tie plates are bolted by bolts passing through holes that are larger than the wire of the bolts.

From the top of the ash pit there extends inward a flange 17^a provided at its inner periphery with lugs 17, upon which rests the grate 13, and upon the flange above the lugs 17 rests the lower end of the firepot 4. The flange 17^a may be either on the same plane as the tabular part 3^a of the outward extending flange, or it may be on a different plane and it may be made integral with the flange 3^a or in a separate piece.

The firepot 4 extends upward, flaring outward slightly, and being generally circular in contour, but extended outward at its rear, and upon its upper edge is provided with a suitable contact ledge 4^a, upon which rests the lower edge of the dome 5. The lower edge of the dome 5 is also substantially circular in outline, having a corresponding extension to the pot; but, as the dome rises, it divides or branches, one part rising into the dome proper, 5^a, which is closed at the top, and the other part rising into the seat 6^a of the smoke pipe. This construction makes it possible to seat the lower end of the smoke pipe directly on the upper end of this branch of the dome without employing an elbow. The seat 6^a is horizontal, and around either the outer or inner periphery is a groove to receive the bottom end of the pipe, and cement to seal the joint.

To the upper side of the tabular part 3^a of the flange 3 is secured on each side of the stove an overhanging flange 11, 11^a, under which can travel an inward projecting foot or leg 12 that forms a part of, or is secured to the lower end of the casing 15. There are preferably four of these legs 12, one at each corner or near each corner of the casing 15, and when the parts are assembled, the legs are held under the overhanging ledges 11 11^a, and the casing is thereby secured to the base. The rear panel 16 of the casing rests on the base behind the dome 5, and is provided with four turnkeys, two of which, 16^a and 16^b, are seen in Fig. 1. These keys on their inner side terminate with the usual holding buttons, and on the outer side with knobs or other means by which they may be turned, each on its own axis. The side pieces of the casing 15 are provided at their rear edges with flanges that turn inward toward the central vertical line, as is shown in Fig. 4,

and the inner ends of the keys 16^a and 16^b engage under these flanges and secure the front and side parts of the casing to the rear panel. The front panels and the side panels are securely bolted together, and the top or ornamental dome of the casing is bolted to the front and side panels. At the front part of the dome, above the firepot, is a door casing to which is hinged a door 18, and through the front panel of the casing is an opening 19 conforming to the general contour of the door 18, and arranged to show an apparent frame for the door 18 when the parts are assembled. All the panels of the outer casing are preferably made of ornamental filigree work, presenting numerous openings throughout their entire surface through which the air rising from beneath the stove and heated by contact with the firepot and drum, may escape into the apartment in which the stove is situated, and through which the heat of the stove may radiate into the room. The lower part of the front panel beneath the door that opens into the dome presents the appearance of a second door, and occupies the position that is sometimes occupied in stoves of this class by the ash pit door, but it is in reality a part of the panel simulating the appearance of a door, while the actual door into the ash pit is located still lower down and simulates the appearance of the stove base.

It is evident that the interior parts of this stove can be reached for purposes of cleaning or repairing very simply by releasing the button connection between the back panel and the side panels on the ornamental casing, removing the casing by pulling the front part forward and lifting the back part off from the stove base, when the dome and firepot will be entirely exposed. Also, by this construction I am enabled to drop the ash pit much lower down toward the floor, and consequently to drop the firepot, which is above the ash pit, much lower toward the floor than is usual in stoves of this class; and I am especially enabled to drop the lower edge of the opening into the ash pit so low down that it presents no obstruction whatever to the largest ash pan that can be contained in the pit itself, and the feed door opening is brought so low that coal can be introduced much more readily than in other stoves.

What I claim is—

1. In a heating stove, the combination of a leg frame having side and back panels uniting the legs, an ash pit, the bottom of which is secured to the two front legs of the leg frame, and is utilized as the connecting bar between the two front legs in place of the ordinary panel, a flange surrounding the ash pit adapted to rest upon the leg frame, a door adapted to close the opening into the ash pit and simulating the appearance of the panel connecting the legs, substantially as described.

2. In a heating stove, the combination of a

leg base and a firepot base separable but adapted to be secured together, an ash pit provided with an opening extending through the front panels of the leg frame and firepot
5 base and provided with an opening which has for its lower frame the bottom of the ash pit, substantially as described.

3. In a heating stove, the combination of a base, a firepot and dome thereover, an ornamental casing adapted to inclose the dome and fire pot, means for engaging the base and one section of the ornamental casing, and means for engaging the two sections of the ornamental casing together and thereby holding the whole in position, substantially as
15 specified.

4. In a heating stove, the combination of a base provided with overhanging guides, an ornamental casing made in sections, of which
20 one section is provided with lugs adapted to engage under the overhanging guides and another section is provided with means for securing the two sections together, substantially as described.

5. A heating stove, comprising the following elements: a base plate supported on four legs, an ash pit hanging underneath said base, a firepot supported on said base, an open fretwork casing resting upon said base there being holes through said base to allow the air
30 to enter the chamber between the fire pot and the fretwork, arranged and combined as specified.

6. In a stove, a base plate provided at its
35 upper edge with means for engaging the leg

supports, an ash pit depending beneath it, openings between the outer edge of the table and the ash pit, a central opening over the ash pit, a seat for the fire pot, and an external casing spaced from the firepot, whereby
40 a chamber is provided between it and the fire pot, adapted to produce a circulation of air from beneath the table upward.

7. In a stove, a casing provided at its lower edge with means adapted to form an engaging
45 connection between itself and the base plate so as to permit the removal of the case from the base plate without disturbing the internal parts of the stove, substantially as described.

8. In a stove, a base plate provided on its upper surface with holding tracks adapted to engage with legs on a casing, substantially
50 as described.

9. In a stove, in combination with a fire-
55 pot, a tabular supporting plate provided with a central opening registering with the interior of the firepot, and with air openings through the base plate surrounding the fire-
60 pot opening, the said surrounding holes communicating with the central opening by slits, whereby the intervening metal is allowed to expand and contract freely, substantially as specified.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM J. KEEP.

Witnesses:

ISAAC S. FILER,
S. E. WIDDIFIELD.