

No. 715,666.

Patented Dec. 9, 1902.

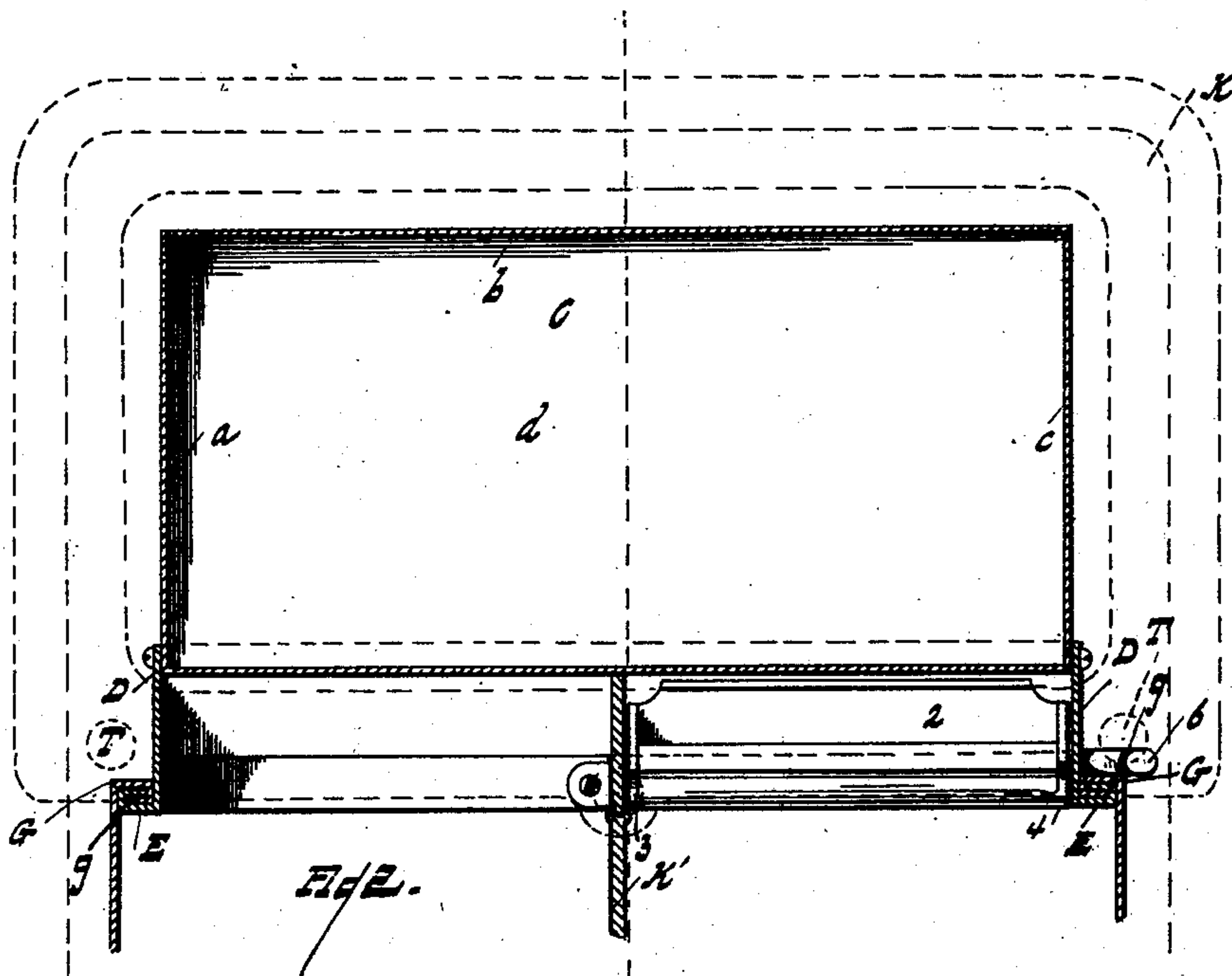
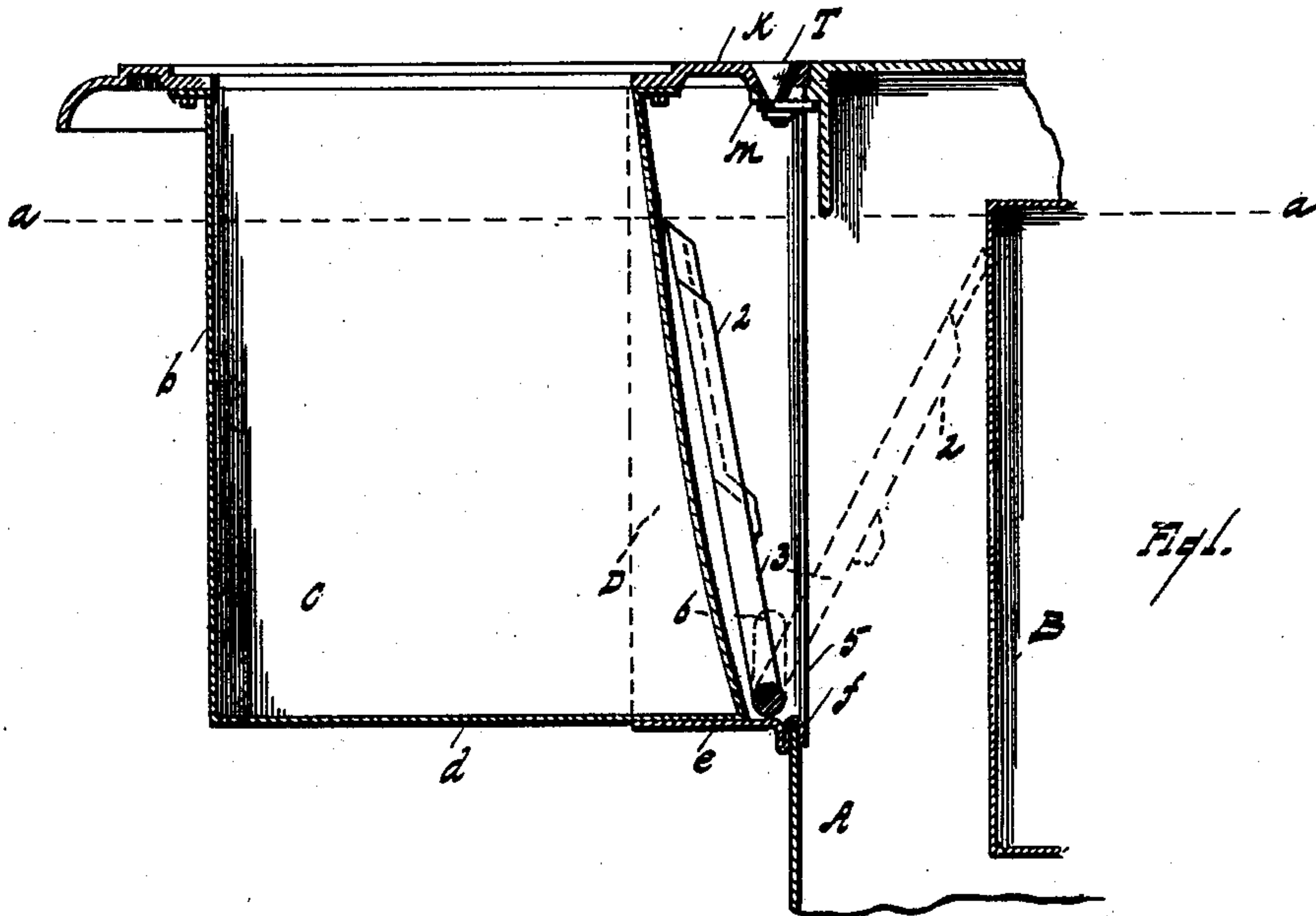
W. J. KEEP.

HOT WATER RESERVOIR FOR STOVES.

(Application filed Sept. 23, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES
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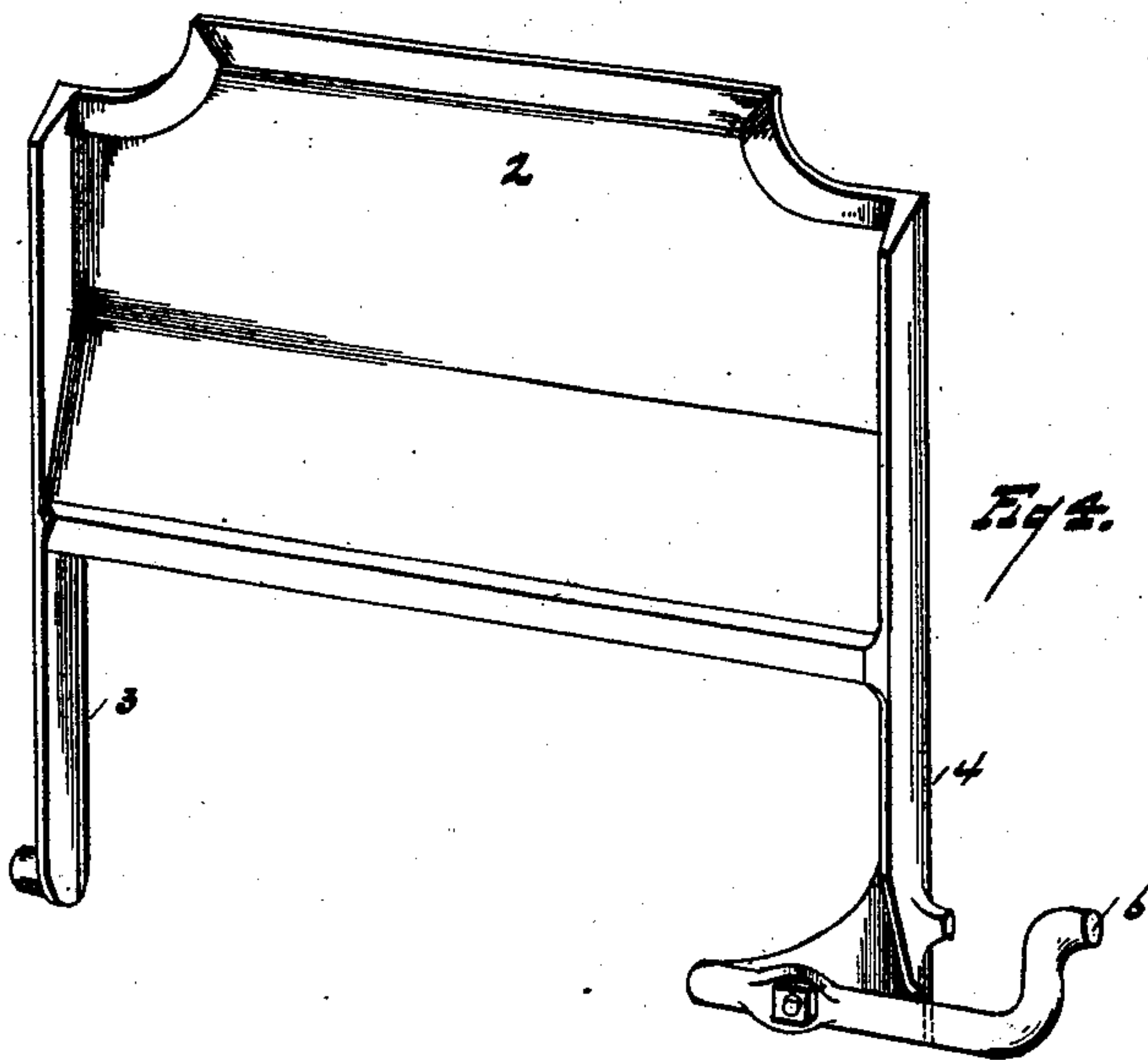
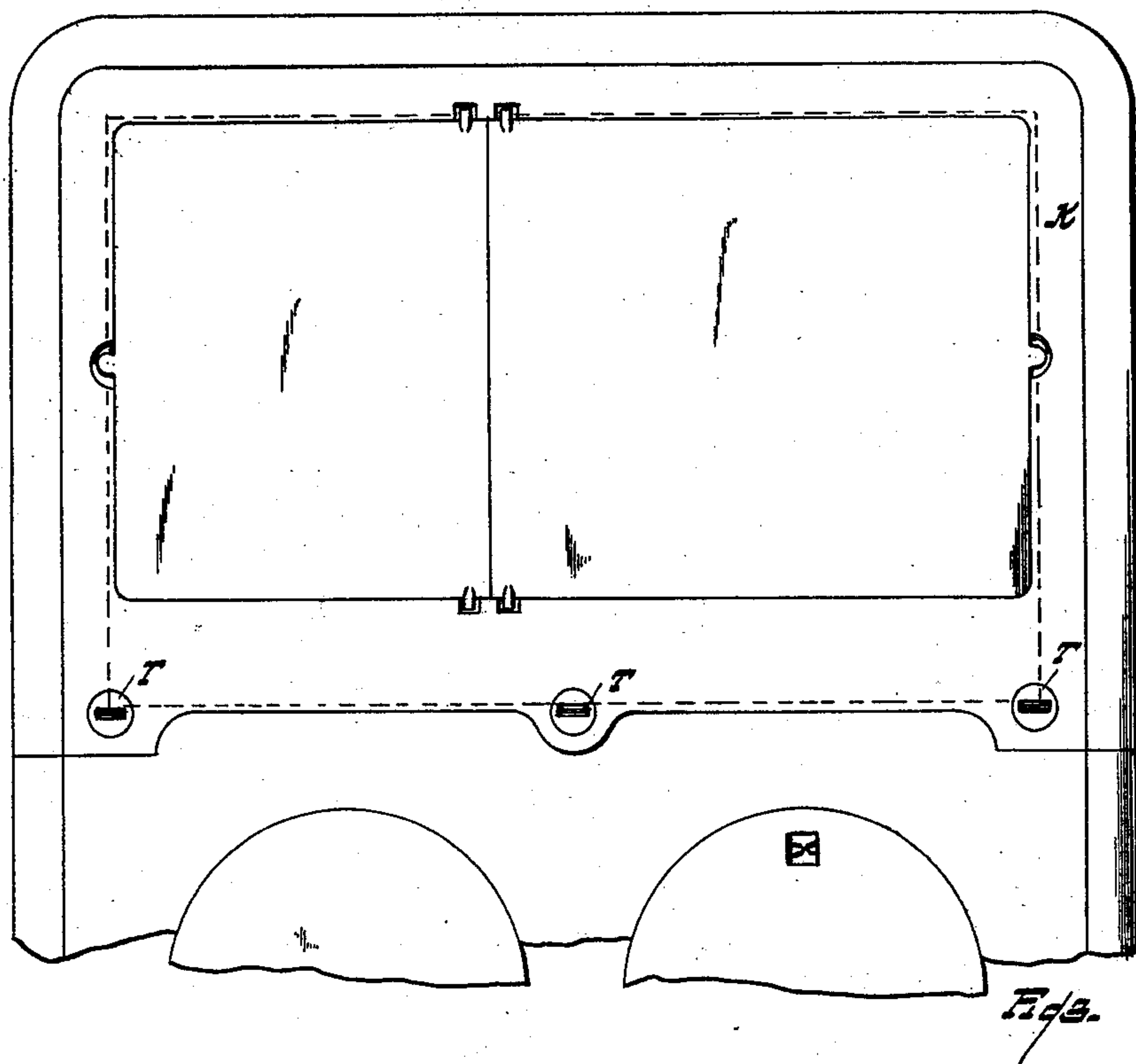
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UNITED STATES PATENT OFFICE.

WILLIAM J. KEEP, OF DETROIT, MICHIGAN, ASSIGNOR TO MICHIGAN STOVE CO., OF DETROIT, MICHIGAN.

HOT-WATER RESERVOIR FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 715,666, dated December 9, 1902.

Application filed September 23, 1901. Serial No. 76,256. (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 Hot-Water Reservoirs for 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 hot-water reservoirs for stoves and the means employed to attach the reservoir to the stove.

It has for its object an improved hot-water reservoir arranged to be attached to cooking stoves or ranges, and especially adapted to sheet-steel cooking stoves or ranges, in which the thinness of the material of the sides renders them readily flexible, the especial object being to provide such a means for attachment that the reservoir can be attached or detached easily and conveniently and make a tight joint and without the use of tools. The stove or range is provided with an opening at the rear with which the reservoir engages and through which opening the hot gases from the stove pass and impinge directly against the walls of the reservoir.

In the drawings, Figure 1 is a sectional elevation showing the rear of the stove and the reservoir. Fig. 2 is a horizontal cross-section at the line *a a* of Fig. 1. Fig. 3 is a plan view showing the top of the reservoir and the top of the rear part of the stove. Fig. 4 is a perspective of the damper.

A indicates the rear wall of the stove.

B indicates the rear wall of the oven.

C indicates the reservoir, which is made with upright practically vertical rear wall and end walls *a b c*, with a horizontal bottom *d*. To the bottom *d* of the reservoir is secured a plate *e*, which projects horizontally forward and is bent along its front edge, which engages at the back of the range with a double bend *f*, forming a groove, the mouth of which is turned downward, and the projection *e* engages over the upper edge of the rear side A of the range, with the rear wall

of the range engaging in the groove in the bend *f*. The side pieces D D close the end openings between the rear of the range and the reservoir, and these side pieces are secured to the reservoir, and each terminates at its front vertical edges E with a scroll-like bend that forms a short vertical split tube, which is preferably rectangular in cross-section rather than round in cross-section. The projecting rear ends of the side pieces of the range are bent to form corresponding split tubes G G, and the bend of the one part engages closely in the bend of the other part, the parts being brought into engagement by lifting the reservoir until the lower ends of the tubes *g g* are above the upper ends of the tubes G G, engaging the ends of the one tube in the end of the other tube and forcing the reservoir down until the groove in the bent extension *e* engages over the rear wall of the range. I do not confine myself to these exact joints, but to any joints which will accomplish the same purpose. When in this position, the top of the reservoir engages against the top of the range with a projecting part of the plate K engaging over a flange *m*, that projects from the top of the range, and the two parts are held together by turn-buttons T. The stem of each button T engages through a hole in the plate which forms the frame of the reservoir and engages also through an elongated slot in the flange *m*, and on the bottom of the stem is a button, which engages under the flange *m*. Some other similar clamping device may be used. The reservoir may be easily engaged or disengaged from the body of the range, and the engagement is made without using cement and without the use of tools. The joint is tight and secure.

A damper or valve 2, with projecting arms 3 4, is pivoted near the bottom of the chamber 5 and is swung by a lever 6 to a position with its top resting either against the reservoir or against the back of the oven and across the descending flue, which leads directly from the fire. There is an opening between the arms 3 and 4 and the plate of the damper that furnishes a passage for gases when the damper is turned forward, and the

damper deflects the gases from the reservoir, protecting the reservoir from them when the damper is turned back.

This invention is applicable to ranges having a single flue between the oven and the reservoir or to stoves or ranges having two or three flues. In the latter case the flue-strips K', only one of which is shown in the construction illustrated by the drawings, dividing the flues, are provided on their rear vertical edges with grooves, and a strip on the front of the reservoir is provided to engage such grooves. The edge of the strip which is attached to the reservoir, which edge lies against the reservoir, is curved to press against the reservoir-wall, so that when the edge of said strip comes against the grooved edge of the flue-strip K' it will do so with a yielding pressure and a tight joint will be formed between the two edges.

What I claim is—

1. The combination of a range having an opening bounded by three edges one of which is approximately at right angles to the other two and a sheet-metal reservoir having the metal at its edges bent to engage the bounding edges of said opening so as to develop the resiliency of the sheet metal of said reservoir to hold the joints tight.

2. The combination of a range having an opening bounded by three edges one of which is approximately at right angles to the other two, a sheet-metal reservoir having the metal at its edges bent to engage the bounding edges of said opening so as to develop the resiliency of the sheet metal of said reservoir to hold the joints tight, a flange top provided with means for engaging the reservoir-top and turn-buttons or similar devices arranged

to secure the range and reservoir together to hold the joints in engagement.

3. A strip upon the reservoir having one of its edges curved so as to press against the flexible side of said reservoir, said strip being adapted at its other edge to contact the edge of the flue-strip so as to form a yielding engagement therewith.

4. A damper 2, provided with projecting arms 3 and 4, pivoted near the bottom of a reservoir that can be swung against the oven and deflect the heat against the side of the reservoir and against the reservoir to deflect the heat away from the reservoir, substantially as described.

5. In combination with a range, a reservoir with projecting walls extending from the reservoir-body toward the range whereby there is formed a chamber outside the range, a damper pivoted at the bottom of said chamber having an opening at its lower part, and means for turning said damper against the reservoir or against the oven.

6. In combination with a range provided with a descending flue communicating directly with the fire, a reservoir with walls forming a chamber adjacent to said flue, a damper affording an opening at its lower part pivoted at the bottom of said chamber and extending upward, said damper being adapted to swing against the reservoir, or across said flue.

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

WILLIAM J. KEEP.

Witnesses:

MAY E. KOTT,
C. F. BURTON.