

J. GRIMES.
Cooking Stove.

No. 67,977.

Patented Aug. 20, 1867.

FIG. 4

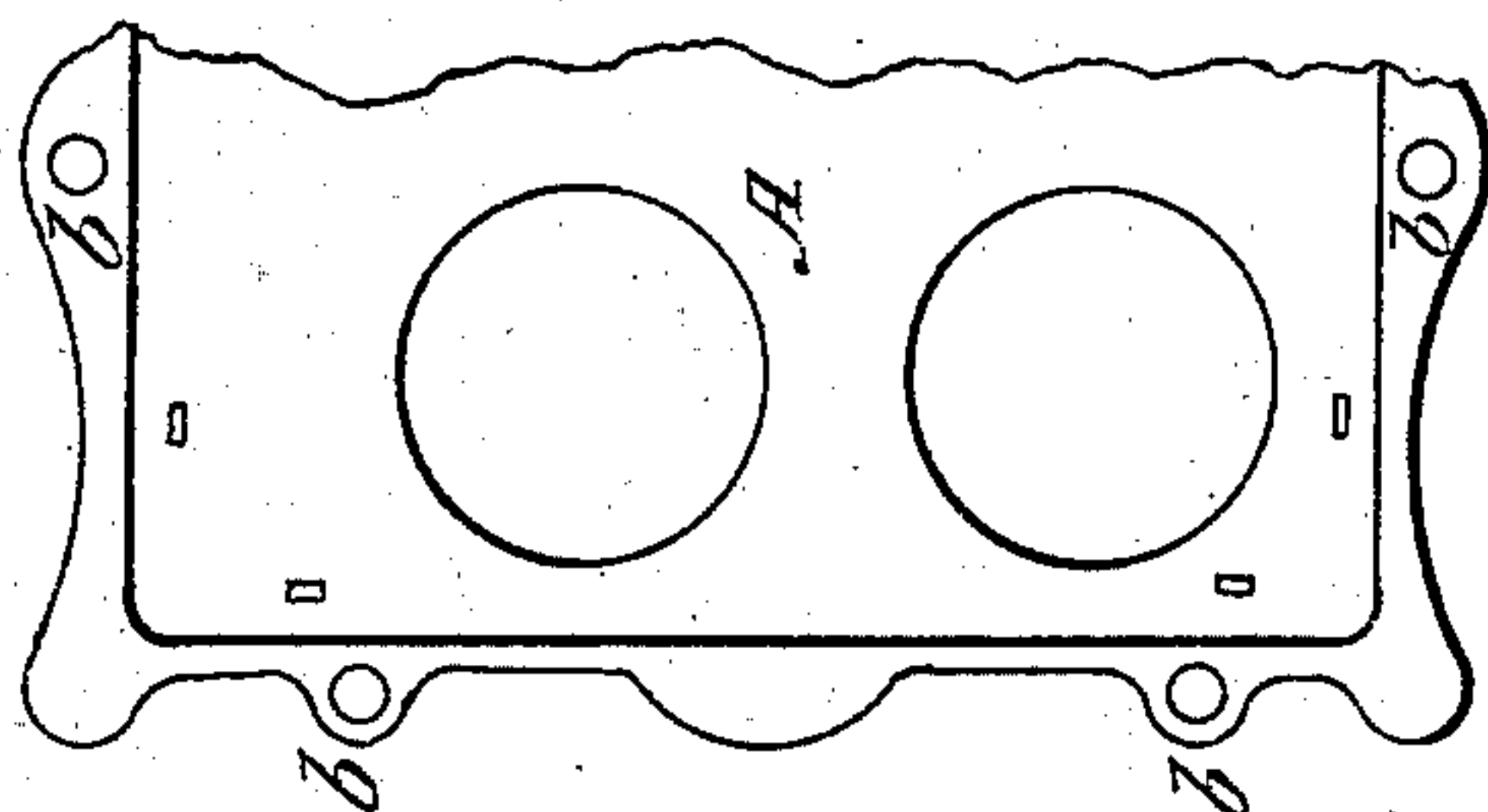


FIG. 3

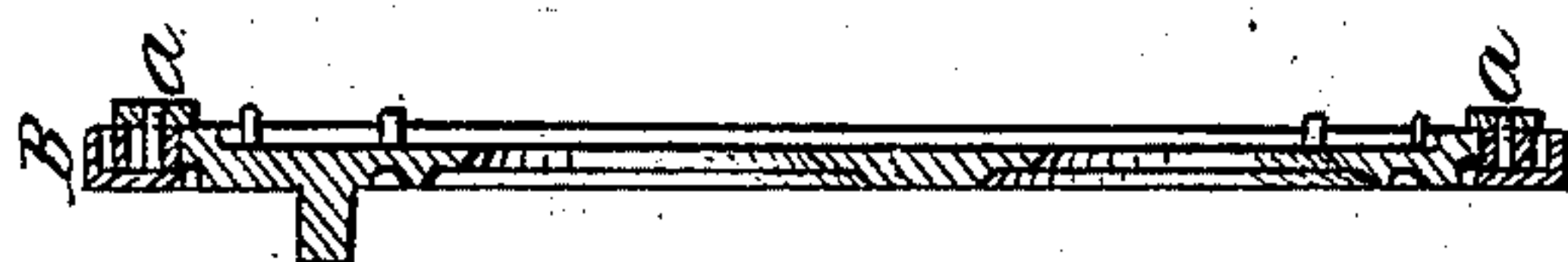


FIG. 2

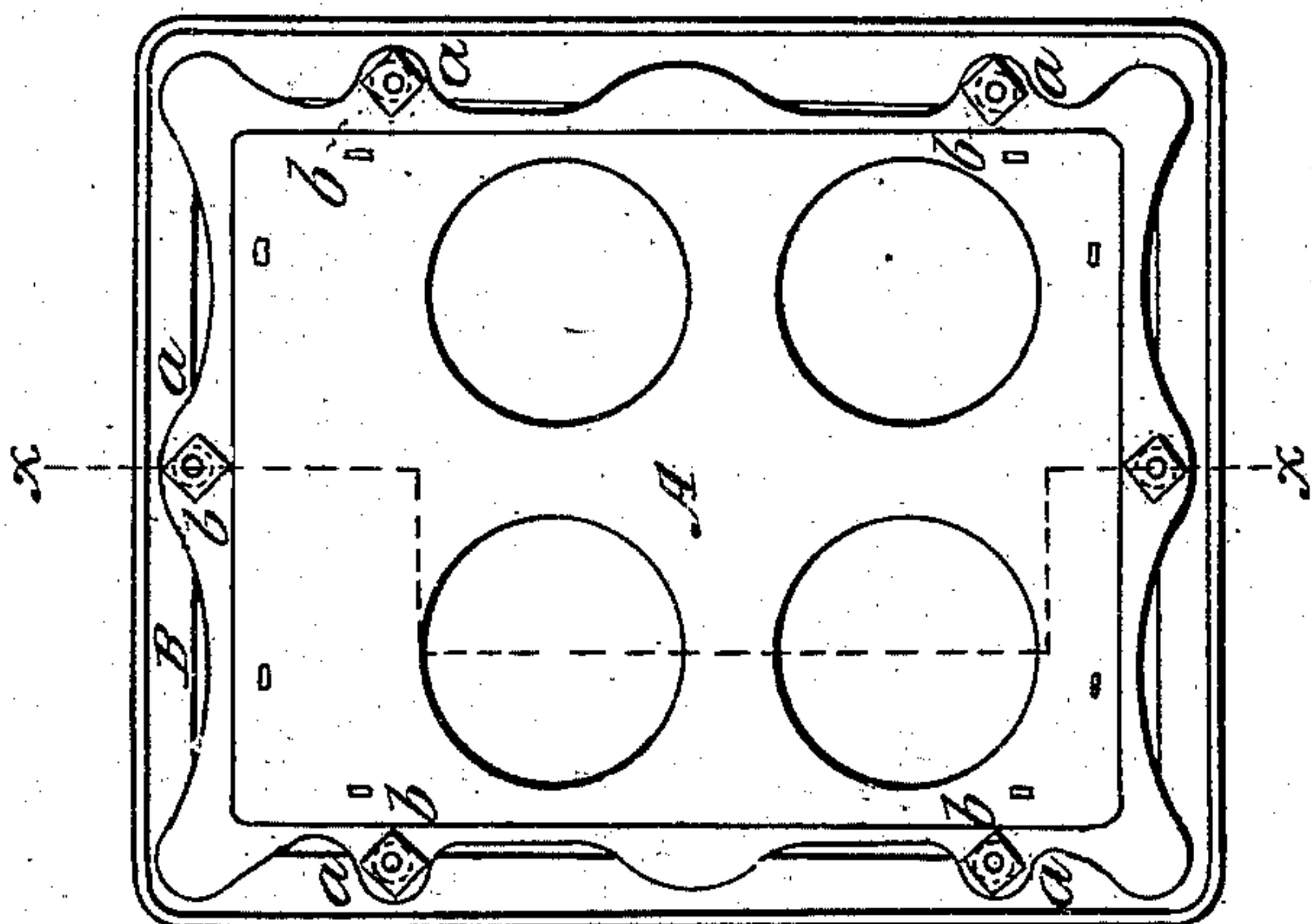
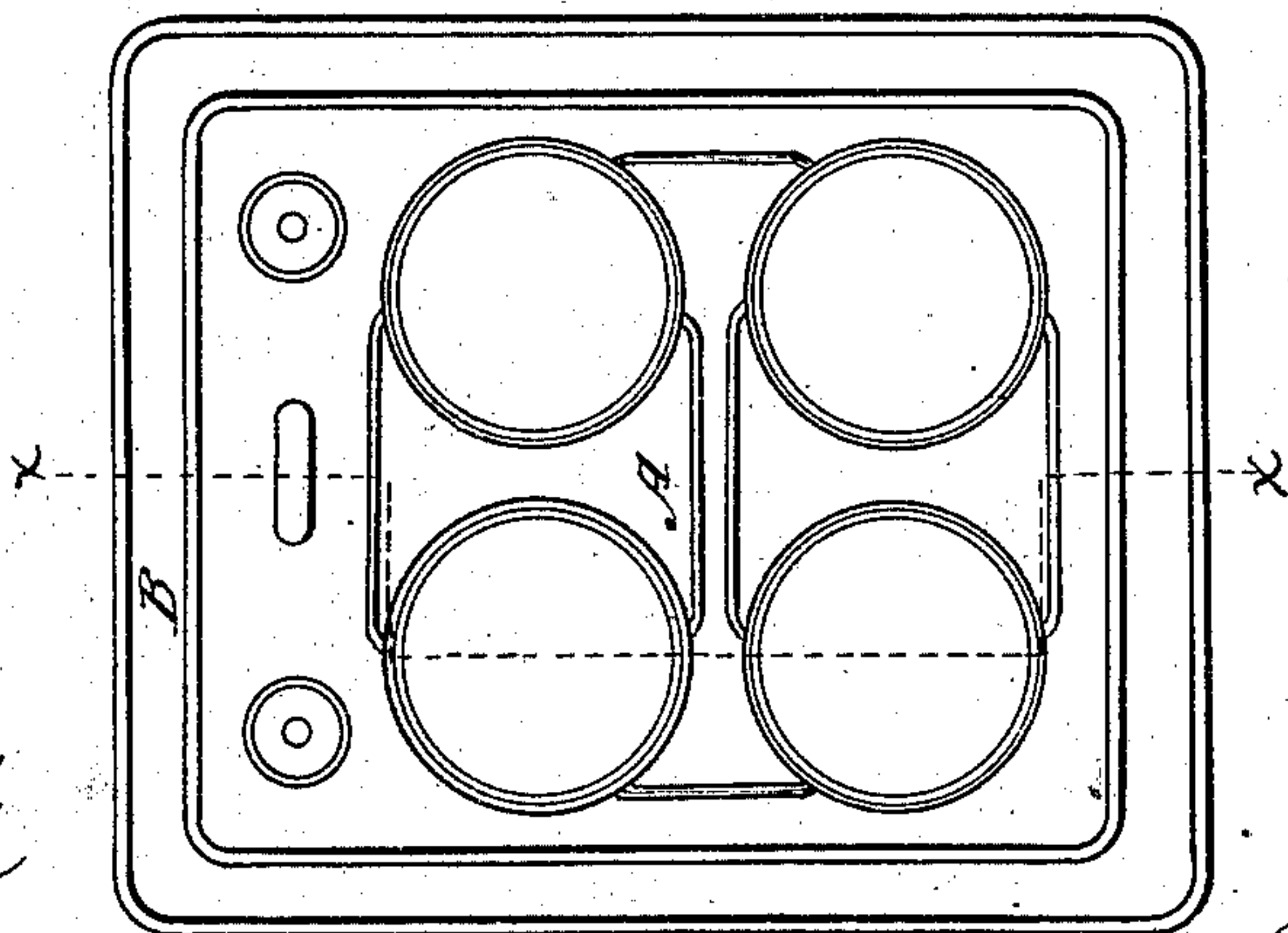


FIG. 1



WITNESSES:
Theo Tusché
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United States Patent Office.

JAMES GRIMES, OF PORTSMOUTH, OHIO.

Letters Patent No. 67,977, dated August 20, 1867.

IMPROVEMENT IN TOPS OF COOKING-STOVES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES GRIMES, of Portsmouth, in the county of Scioto, and State of Ohio, have invented a new and useful Improvement in Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is the upper side of the top plate of a cook-stove, showing my improved expansion rim attached thereto.

Figure 2 is a view of the under side of the same.

Figure 3 is a vertical section in the line *x x*, figs. 1 and 2.

Figure 4 is a partial detached view of the stove-plate.

Similar letters of reference indicate like parts.

This invention relates to an improvement in the construction of cast-iron cook and other stoves, to provide for excessive expansion and sudden contraction of the top plate, and thereby prevent the general injury resulting therefrom to the whole stove by the derangement of all the other plates, which depend upon their relation to and connection with the top plate for keeping their proper places in all cook-stoves. This object is effected by means of an independent rim around the top plate of a cook-stove, which is kept comparatively cool, and is not subject to undue expansion and contraction, like the top plate, to which rim the side plates of the stove are fitted, and consequently keep their places without injury from heat. The main tops of stoves are often cracked by excess of heat and sudden contraction by spilling water on them when hot, and thus all the other plates are disarranged. By my improved expansion-rim this difficulty is entirely obviated.

In fig. 1 is shown the upper side, and in fig. 2 the under side of the top plate of a cook-stove, with an inner main plate, A, having the pot-holes and other connections as usual, and an outer rim, B, which surrounds the main plate A, which may be in one or more pieces, and is fastened to the main plate or plates by screw-bolts *a a*, which pass through lugs *b b* on the sides of the plate A. The holes in the lugs *b b* are made large, so that the bolts *a a* may enter them loosely, and, having their nuts a little loose, admit of some side play, to allow the expansion and contraction of the inner plate A independently of the rim B.

It will be observed that with this arrangement the main plate A may expand and contract freely without affecting the outer rim B, and consequently that the other plates of the stove will not be deranged or injured by excessive heat in the stove or sudden contraction. My improvement of an independent expansion rim may be modified in its arrangement in connection with the main plate or plates of a stove, and may be made in one or more pieces.

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

The rim B, constructed in one or more pieces, secured to the lugs *b b* of the plate A, by means of screw-bolts passing through the lugs, said holes being enlarged to admit of the expansion and contraction of the plate A independently of the rim B, as herein shown and described.

JAMES GRIMES.

Witnesses:

GEORGE R. GRIMES,

WM. GRIMES.