No. 707,025. Patented Aug. 12, 1902.

F. L. SHEPPARD.

STOVE DOOR HINGE.

(Application filed Dec. 31, 1901.)

(No Model.)

Fig. 1.

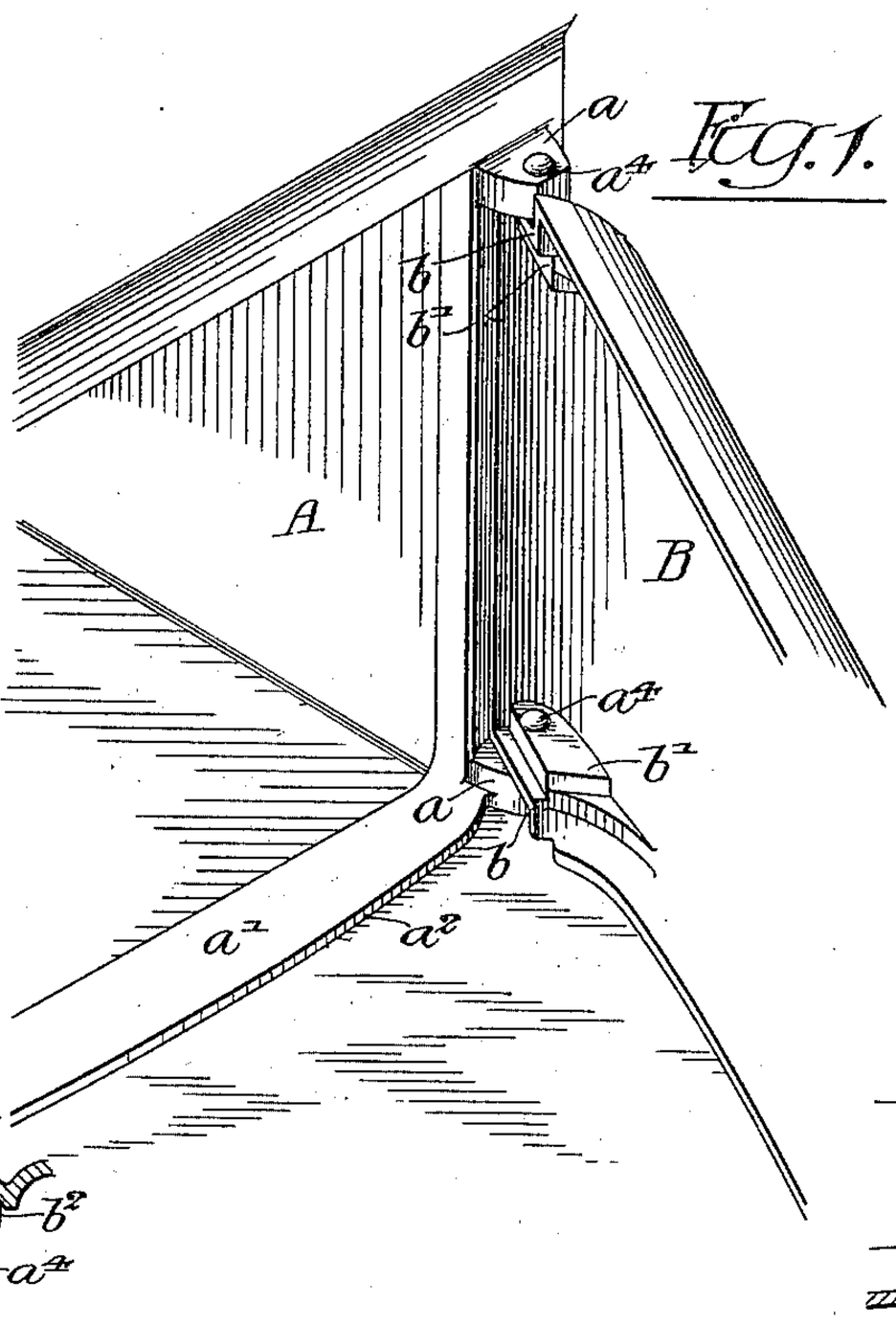


Fig. 3.

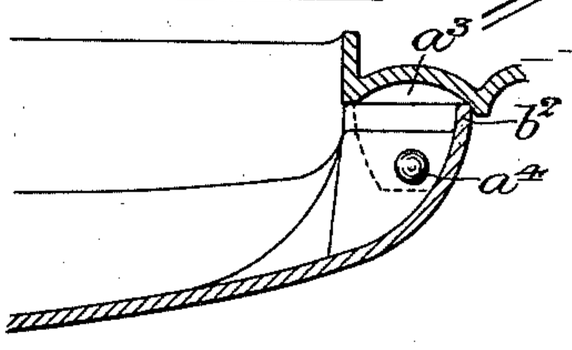


Fig. 4.

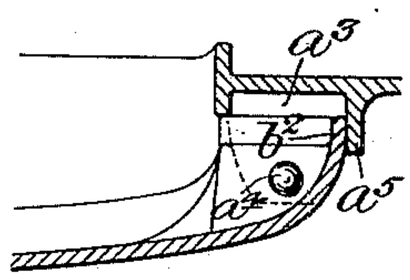
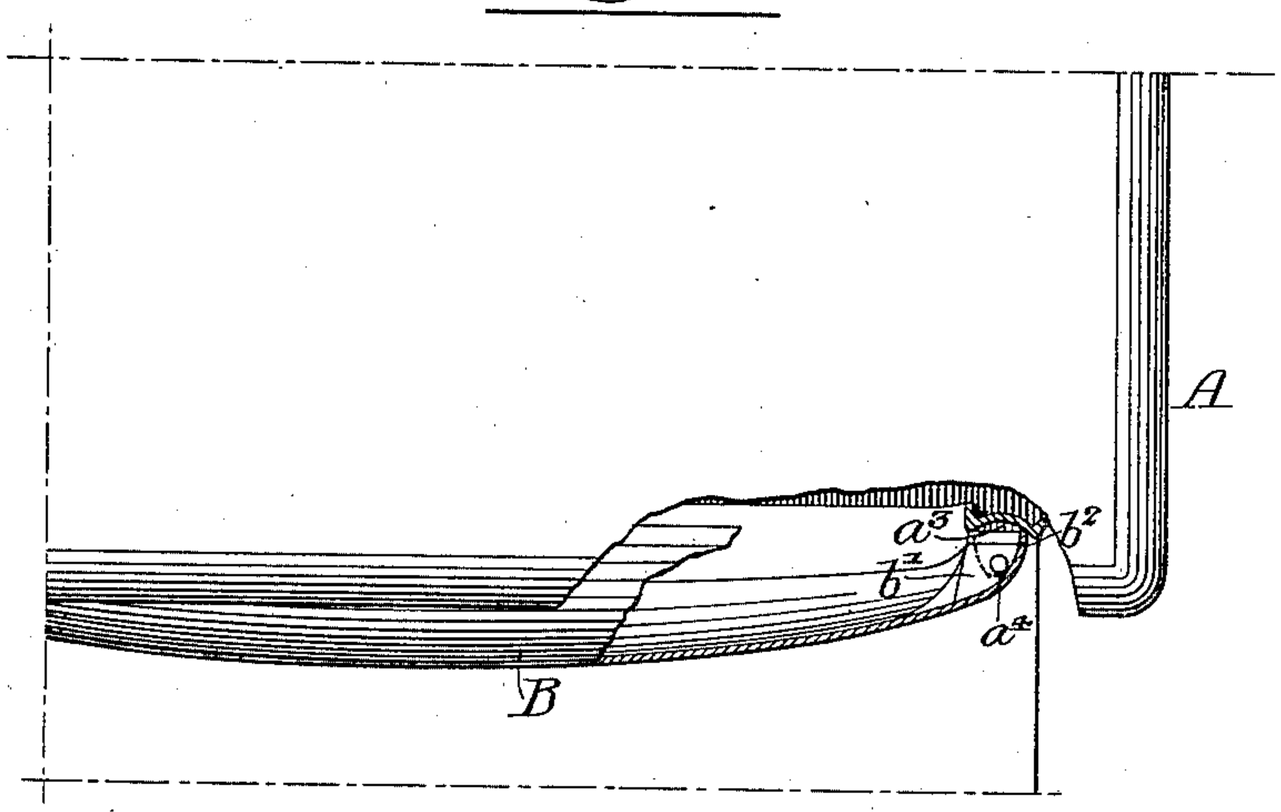


Fig. 2.



Witnesses:-

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William E. Bradley

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UNITED STATES PATENT OFFICE.

FRANKLIN L. SHEPPARD, OF PHILADELPHIA, PENNSYLVANIA.

STOVE-DOOR HINGE.

SPECIFICATION forming part of Letters Patent No. 707,025, dated August 12, 1902.

Application filed December 31, 1901. Serial No. 87,869. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN L. SHEPPARD, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Stove-Door Hinges, of which the following is a specification.

My invention relates to certain improvements in the construction and arrangement of the doors of stoves, ranges, boiler-furnaces, &c., and more particularly to an improved arrangement of the hinges or pivots for such doors, the object of the invention being to provide a hinge-support for a door whose pivotal line shall be within the door, thus making it possible to construct the latter without external hinge-lugs. This object I attain as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a range, showing a door attached thereto in accordance with my invention. Fig. 2 is a plan view, partially in section, of the door and its support shown in Fig. 1. Fig. 3 is an enlarged sectional plan view of a portion of Fig. 2, and Fig. 4 is a sectional plan view of a slightly-modified form of my invention.

In the construction of doors for stoves, furnaces, &c., it has hitherto been customary to form the body of the door with two projecting lugs for the reception of hinge-bolts or pins, which also pass through lugs projecting from the body of the stove in the immediate vicinity of the door-opening. In order that doors of this particular class may be given a more finished appearance and to avoid the unsightly hinge-lugs ordinarily projecting from one edge, I have devised a door having its pivotal or hinge lines within its body, providing it with internal lugs for the reception of the necessary hinge-bolts or pivot-pins.

In the accompanying drawings, A represents an oven of a range or similar structure, the same having hinge-lugs a projecting from its face and a base-plate with its external edge a^2 formed to fit the correspondingly-shaped bottom edge of a door B in the present instance. The portion a^3 of the frame of the oven between the hinge-lugs a is depressed or recessed, as shown in Figs. 2, 3, and 4, being preferably formed as a portion of a cylindrical surface, having for its axis a vertical line passing through the centers of the pivots or pins a^4 in said lugs a. B is the door of the oven, and from Fig. 2 it will be seen that it is of the well-known form in so far as it has all four of its sides or edges curved inwardly. The upper and lower corners of the door at the hinge side are, however, depressed, as at b, and are strengthened by reinforcing-lugs b'. The hinge-lugs a on the frame of the range rest in the recesses b, and pivot-pins a^4 pass through the lugs a and through perforations in the door, as shown. From this construction it will be seen that the pivotal line of the door passes through the interior of the same, and there is no need for the projecting and easily-broken lugs customarily used. It will be further seen from Fig. 2 that the hinge side b^2 of the door illustrated is somewhat extended, so as to bear against and form a relatively tight joint with the cylindrical depression a^3 of this portion of the oven, and as the door is opened the edge of this side maintains its tight joint with said surface, since the axis of said surface and the center of motion of the door are coincident.

If it is desired to make even a closer joint than is shown by the constructions illustrated in Figs. 1 to 3, I may form the oven with a projecting rib a^5, the edge b^2 of the side of the door being placed to snugly abut against the same.

It will be seen that one of the pivot-pins a^4 is outside of the door and the other within the same; but it will be understood that I may, if I so desire, place both of these within the door.

I claim as my invention—

1. The combination of a frame or body having hinge-lugs, said frame having a continuously-depressed portion formed concave from the outside and extending between said lugs, a door for the frame, and means for supporting said door from said lugs, the entire side of the door extending beyond the line of the said supporting means and being constructed to enter the depressed portion in the frame when the door is opened, substantially as described.

2. The combination of a frame or body having projecting hinge-lugs, said frame having a continuously-depressed portion adjacent to said lugs said portion being formed concave

from the outside and extending between the lugs, a door for the frame and pins whereby said door is pivotally hung from said lugs, the entire side of the said door extending beyond the line of said pins and being constructed to enter the depressed portion in the frame when the door is opened, substantially as described.

3. The combination of a frame or body having in it an opening, hinge-lugs adjacent to the same, a door closing said opening and pins whereby said door is hung between said lugs, one of said pins passing from the door to the lip of a lug and the other pin passing from the upper lug into the door, the line of said pins being within the body of the door, and the edge of said door extending in an unbroken straight line between said lugs, substantially as described.

4. The combination of a frame or body of a stove having projecting hinge-lugs and provided with a single continuous cylindrical curved depressed portion extending between said lugs, a door and pins for holding the same to the lugs, the edge of the door being placed to rotate within said depression in the frame, substantially as described.

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

FRANKLIN L. SHEPPARD.

Witnesses:

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