

(Model.)

E. J. SHIELDS.
FURNACE OR STOVE DOOR LATCH.

No. 273,172.

Patented Feb. 27, 1883.

Fig. 1.

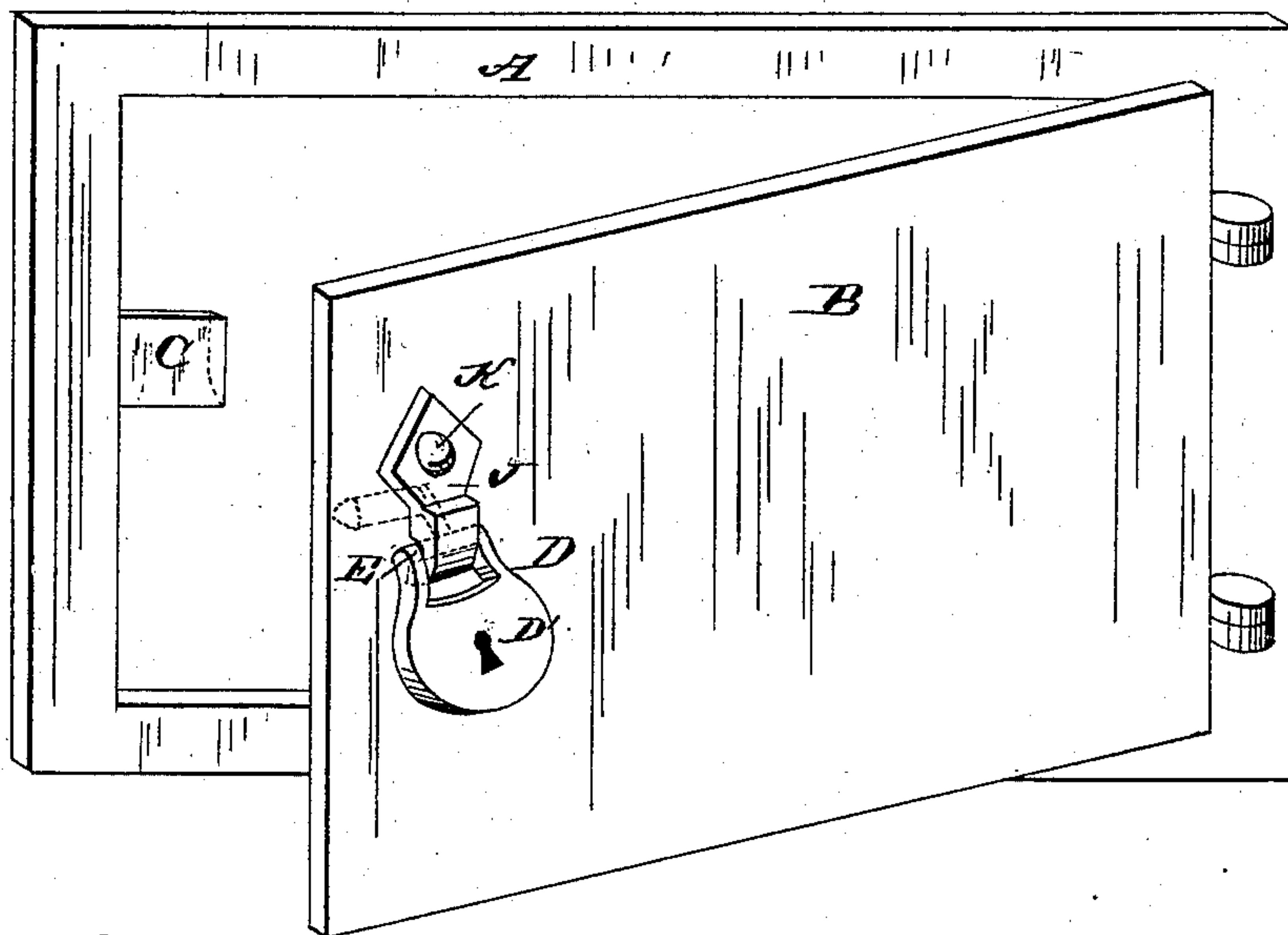


Fig. 2.

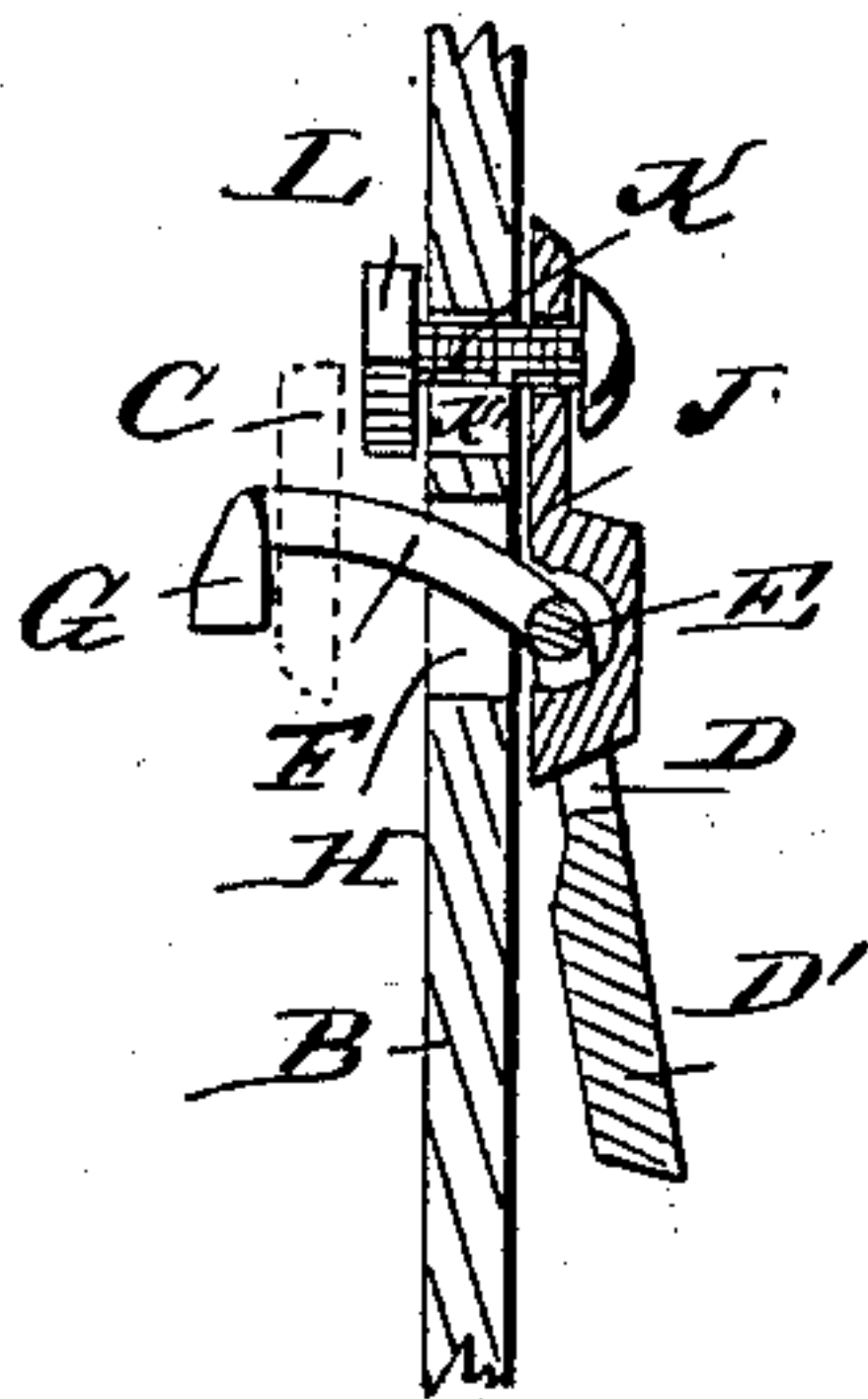


Fig. 3.

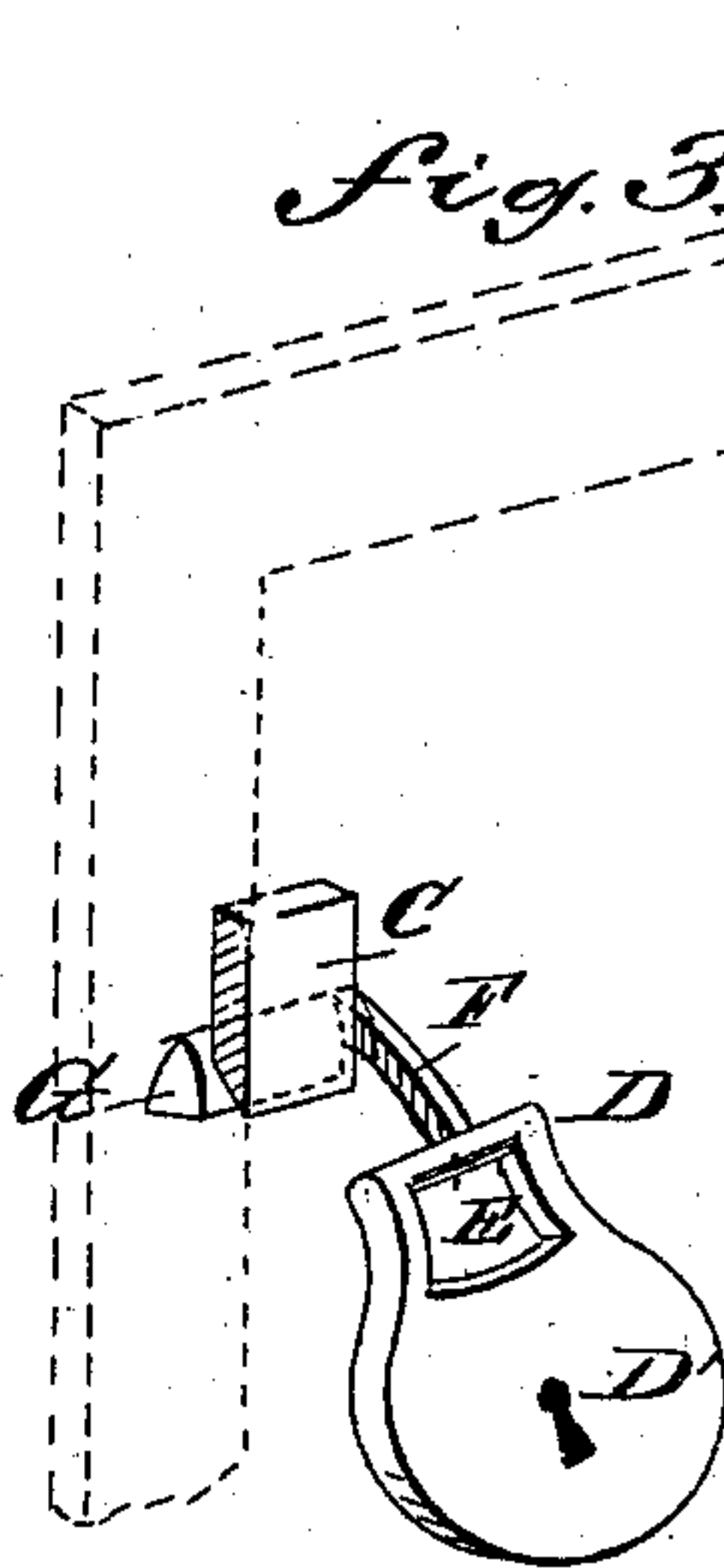
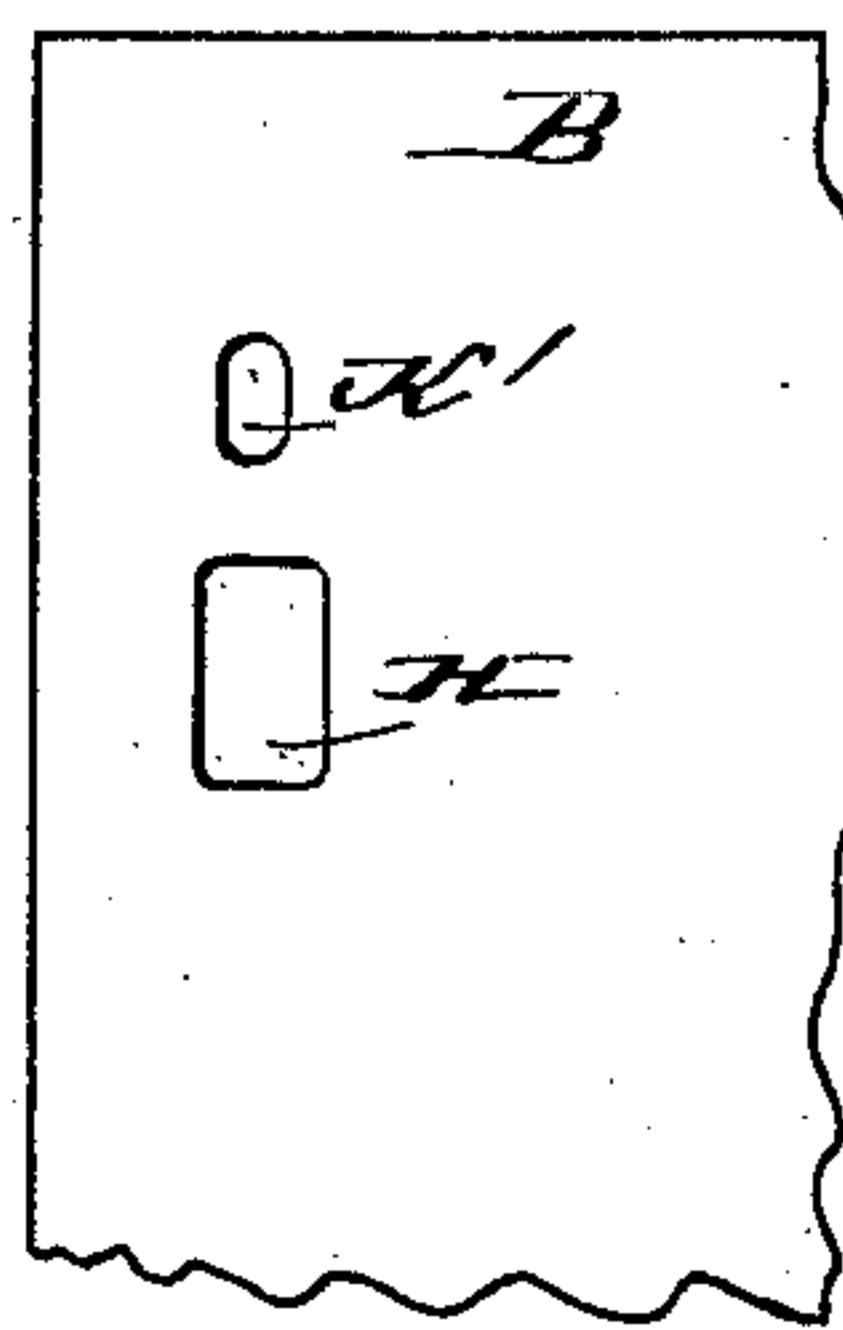


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWARD J. SHIELDS, OF ELIZABETHPORT, NEW JERSEY.

FURNACE OR STOVE DOOR LATCH.

SPECIFICATION forming part of Letters Patent No. 273,172, dated February 27, 1883.

Application filed July 7, 1882. (Model.)

To all whom it may concern:

Be it known that I, EDWARD J. SHIELDS, of Elizabethport, in the county of Union and State of New Jersey, have invented a new and Improved Furnace or Stove Door Latch, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved stove-door latch, which closes automatically and holds the stove-door closed perfectly, and prevents the same from being opened from the inside by the action of the heat.

The invention consists in a swinging latch passed through a slot in the swinging end of the stove-door, on which stove-door it is held by a suitable clip, which latch has a lug in its inner end, this latch being adapted to catch on a lug projecting into the stove-door opening from one side of the same, whereby the stove-door will be locked. The latch has its outer end weighted to hold the inner end raised, all as will be fully explained hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a stove-door and its frame, the door being provided with my improved latch and the door being partly opened. Fig. 2 is a cross-sectional elevation of the same, the door being closed. Fig. 3 is a perspective view of the latch. Fig. 4 is a front view of the swinging end of the door.

The frame A, to which the stove-door B is hinged, is provided with a lug, C, projecting from that side against which the swinging end of the door rests into the door-opening, the lower edge of which lug is beveled on the inner or rear side. A latch, D, is provided with a handle knob or plate, D', which has a cross-piece, E, at its upper end, and from this cross-piece an arm, F, projects upward on an inclined line, which arm is provided at its upper end with a laterally-projecting lug, G, which is beveled toward the upper edge. The arm F is passed through a slot, H, in the door B, so that the lug G will be on the inside of the door. A hook-clip, J, is secured on the

front surface of the door by means of a screw, K, passed through an aperture, K', in the door, and a nut, L, on the inner end of this screw in such a manner that the cross-piece E of the latch D will be in the transverse hook-recess in the inner surface of the clip J. The slot H and the aperture K' are cast in the door and not drilled in the same, as has been customary heretofore. The knob or plate D' is to have such weight that it will always keep the lug G raised. This plate or knob, D', and the clip J can be made more or less ornamental, as may be desired. If the door is closed, the rear beveled surface of the lug G strikes against the front surface of the lug C, whereby this lug G will be pressed downward until its upper edge passes under the lower edge of the lug C, when the weight of the plate D' immediately throws the lug G upward along the inner beveled surface of the lug C, whereby the door is locked. To unlock the door the plate D' must be raised.

The above-described latch locks the door automatically and holds it so perfectly closed that the pressure and action of the heat cannot open the door from the inside, as the fulcrum of the latch will be about on a horizontal line with its inner lug. As the latch passes through the door, the lug C can project sideways or laterally from the frame A and need not project from the surface of the frame A.

The construction of this casting A is thus materially simplified, and the cost of the same is reduced. As I cast the aperture K' and the slot H in the door B, the cost of making these apertures is also reduced.

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

1. The latch D, consisting of the handle D', depending from the axis or cross-bar E, having at one end an arm, F, provided with a lug, G, projecting from one side thereof, and of the clip J, having a hook-shaped recess in its inner side, which receives the axis or cross-bar E, substantially as and for the purpose set forth.

2. The combination, with the stove-door frame A, provided with a lug, C, projecting into the opening in the frame, of the door B, and

the latch D, passing through an aperture or slot in the same and having a lug, G, in its inner end, substantially as herein shown and described, and for the purpose set forth.

5 3. The combination, with the stove-door frame A, provided with a lug, C, of the door B, the latch D, passing through the stove-door and having a cross-piece, E, and a lug, G, on

the inner end, the hook-clip J, the screw K, passing through the aperture K', and the nut 10 L, substantially as herein shown and described, and for the purpose set forth.

EDWD. J. SHIELDS.

Witnesses:

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