

(No Model.)

J. ROMIG.
LATCH.

No. 356,696.

Patented Jan. 25, 1887.

Fig. 1.

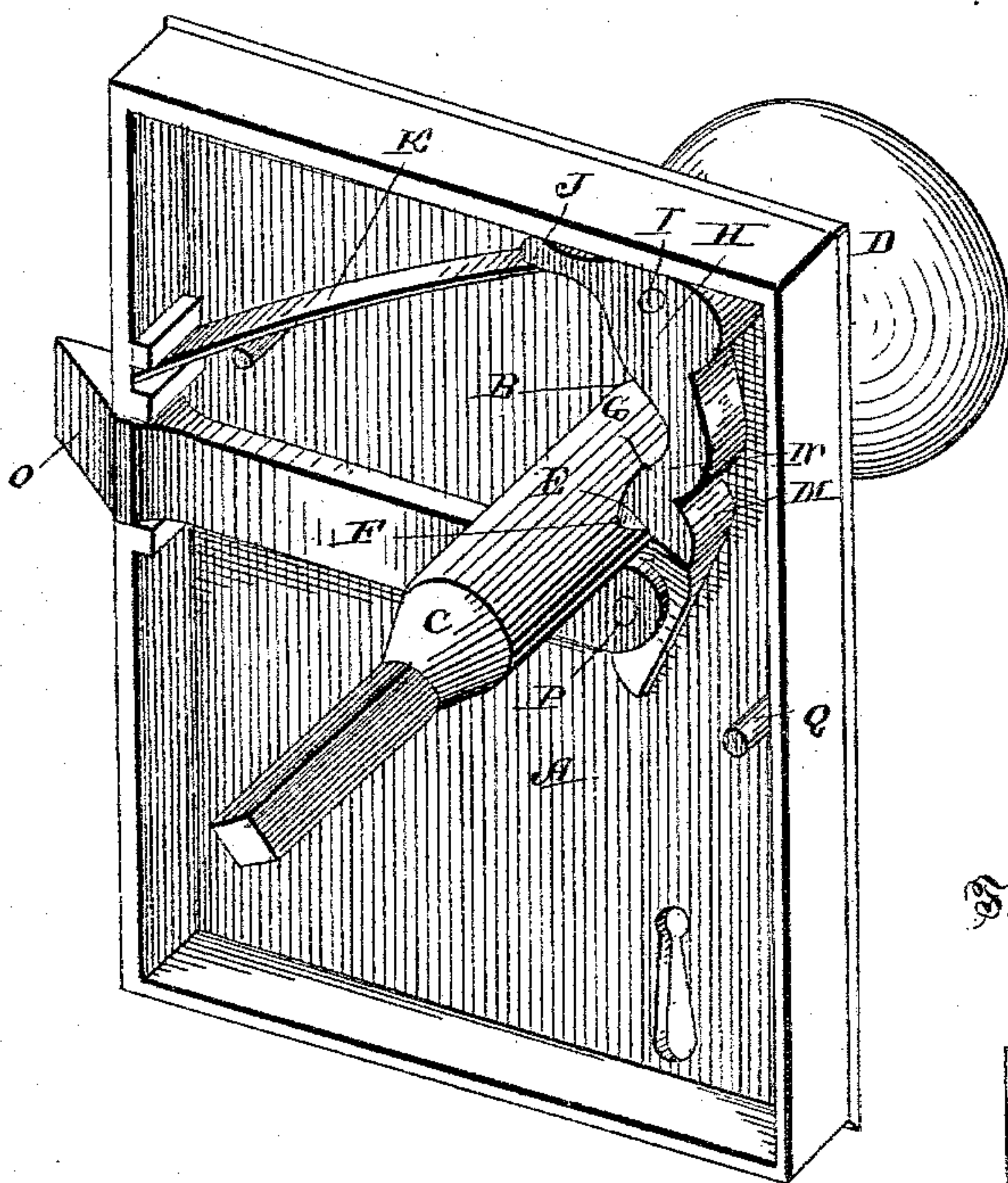


Fig. 2.

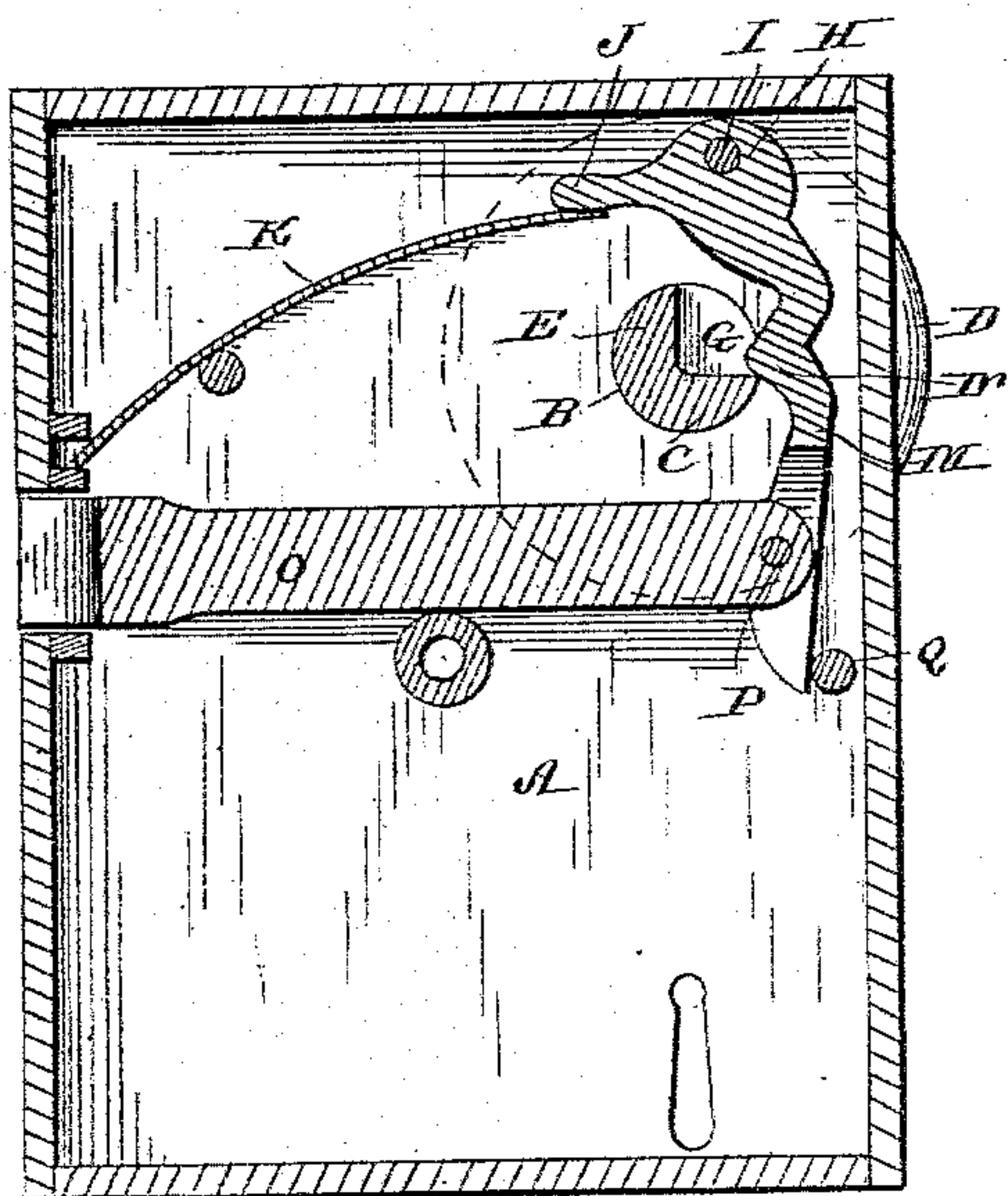


Fig. 3.

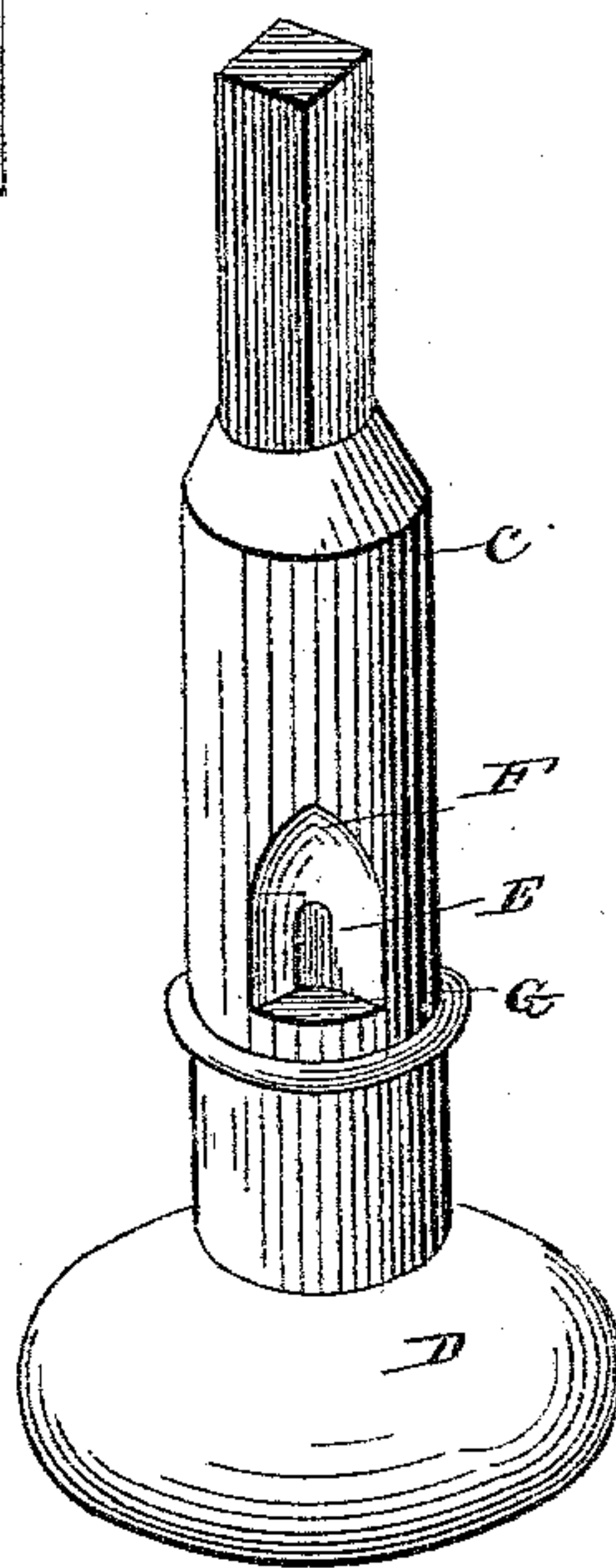
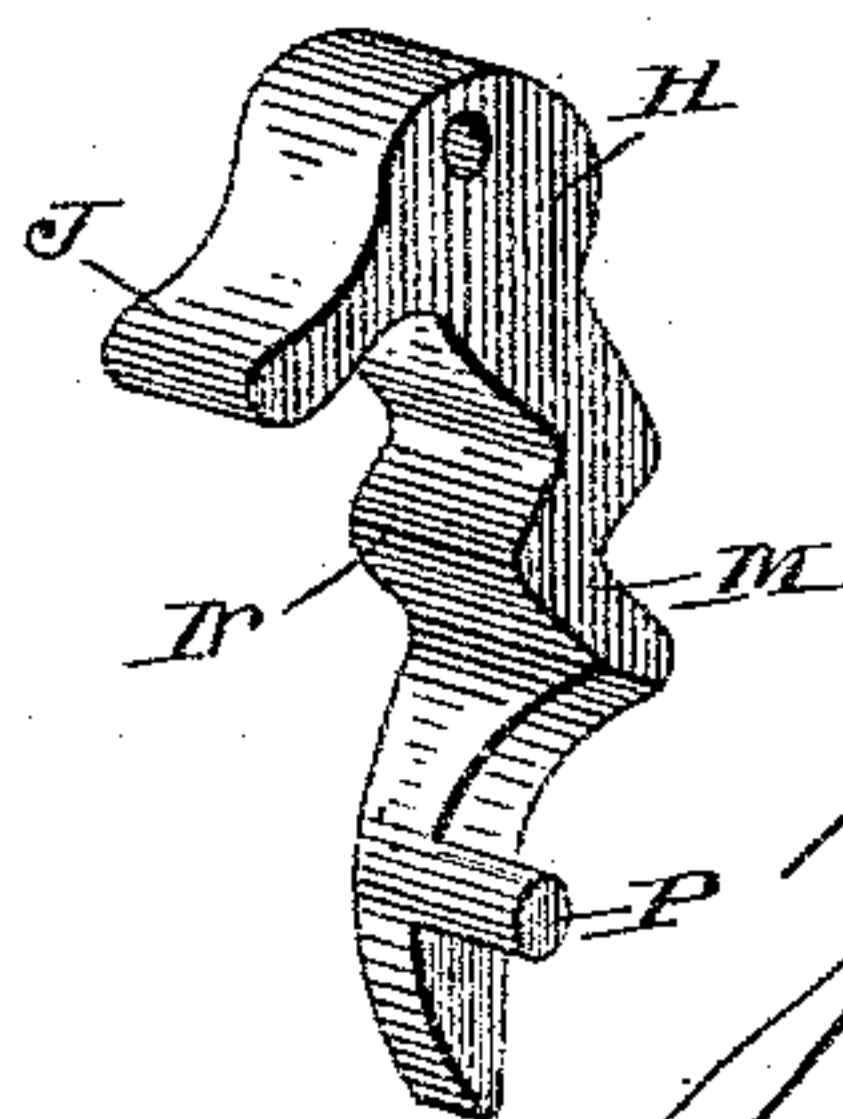


Fig. 4.



WITNESSES

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LATCH.

SPECIFICATION forming part of Letters Patent No. 356,696, dated January 25, 1887.

Application filed August 13, 1886. Serial No. 210,807. (No model.)

To all whom it may concern:

Be it known that I, JOHN ROMIG, a citizen of the United States, and a resident of Mifflinburg, in the county of Union and State of Pennsylvania, have invented certain new and useful Improvements in Latches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved door-latch, showing one side of the casing removed. Fig. 2 is a vertical sectional view on a plane parallel with the side pieces of the casing. Fig. 3 is a perspective detail view of the spindle, and Fig. 4 is a similar view of the latch or bolt operating lever.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of door-latches in which the bolt may be operated by either turning the spindle or by pushing or pulling upon the spindle; and it consists in the improved construction and combination of parts of a latch of this class composed of a small number of simply-constructed parts, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the casing, which is provided with the usual perforations, B, in its side plates for the passage of the spindle C, which is provided with suitable knobs or handles, D.

The portion of the spindle within the latch-casing is formed with a recess, E, V-shaped in cross-section, or nearly so, and one end of this recess is continued in an inclined portion, F, from the bottom of the recess to the outer side of the spindle, while the other end of the recess is formed with an abrupt shoulder, G.

A bell-crank-shaped lever, H, is pivoted at its bend upon a pin, I, at the upper edge of the casing, near the edge farthest away from the latch edge of the door, and the shorter arm of this lever projects toward the latch edge, as shown at J, and has the free end of a flat spring, K, bearing against its under side, the said spring being secured near the latch edge

of the casing. The downwardly-extending arm of the lever is formed with a V-shaped portion, M, pointing toward the latch edge, and one side of this V-shaped portion is beveled, as shown at N. The inner end of the bolt O is pivoted to a pin, P, projecting from near the lower end of the lever, and the lower end of the lever projects below this pin and may engage a pin, Q, inserted through the sides of the casing near the edge opposite to the latch edge. The spindle is inserted so that the V-shaped portion of the lever fits into the recess in the spindle, and the beveled side of the V-shaped portion faces to the same side as the beveled or inclined portion of the recess, so that by drawing upon the spindle the inclined end of the recess will pass over the beveled side of the lever, and in so doing push the lever back.

It will be seen that by turning the spindle by one of its knobs one edge of the recess will be brought to bear against the V-shaped portion of the bolt-operating lever, and in sliding against the side of the same the lever will be pushed back and with it the bolt, thus allowing the door to be opened; and it will also be seen that by forcing the spindle to one side in the casing, either by pushing upon one knob or by pulling upon the other knob, the inclined side of the recess will slide over the beveled side of the V-shaped portion of the lever, pushing it and the bolt back, the flat spring in all cases being tightened and returning the lever and bolt to their original positions when the power applied to the spindle has been withdrawn.

The pin inserted through the sides of the casing near the back edge will serve as a stop for the lever and prevent the same from being tilted too far back, and when it is desired to withdraw the spindle from the casing this pin may be removed, when the spindle may be drawn with the inclined end of its recess against the beveled side of the V-shaped portion of the lever, and may pass over the said portion, the removed pin allowing the lever to be tilted that much farther back.

It will be seen that the latch is formed by a comparatively small number of parts, and that all these parts are simple of construction and formed with no portions which will be liable

to be worn or broken during ordinary use, so that the lock may be manufactured at a comparatively small cost, and will be durable and strong.

5 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a door-latch, the combination of a spindle having a recess in its side within the
10 casing, formed with an inclined end, a bell-crank-shaped lever pivoted at its bend and formed with a forwardly-projecting short arm and with a long arm having a V-shaped bulge projecting into the recess, and having a beveled
15 side fitting to the inclined end of the recess, a spring bearing upward against the under side of the short arm of the bell-crank-shaped lever, and a bolt having its inner end pivoted to the lower end of the lever, as and
20 for the purpose shown and set forth.

2. In a door-latch, the combination of a spindle having a recess in its side within the casing, formed with an inclined end, a bolt-operating lever having a V-shaped bulge projecting into the recess and formed with a beveled
25 side fitting to the inclined end of the recess and having a spring for forcing it into the recess, and having the bolt pivoted to its lower end, and a removable pin inserted through the casing near the back edge, abutting against
30 the lower end of the lever when the latter is forced back, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature
35 in presence of two witnesses.

JOHN ROMIG.

Witnesses:

WM. W. AUSPACH,
JAS. H. SNODGRASS.