

W. A. BARLOW.

DOOR-LATCH.

No. 187,698.

Patented Feb. 27, 1877.

Fig. 1

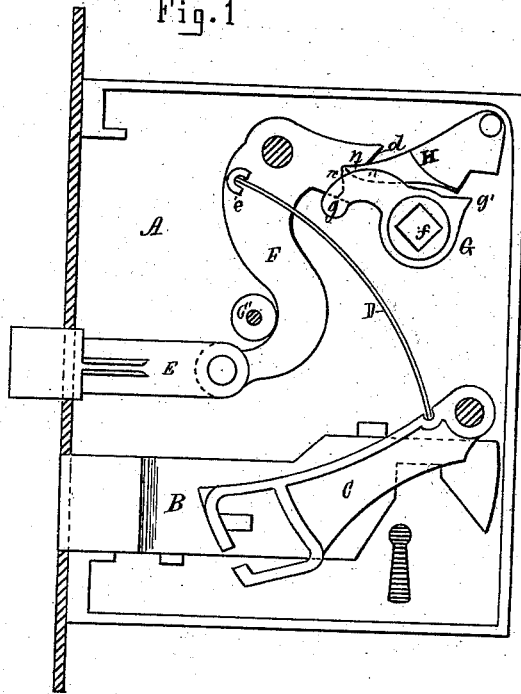
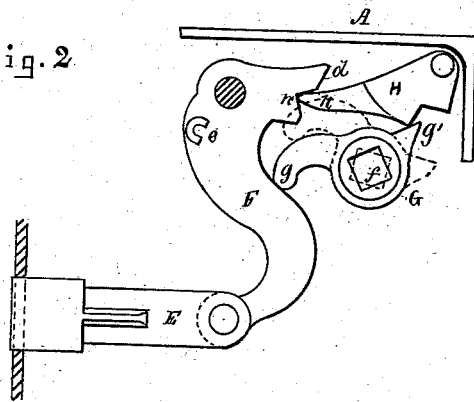


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM A. BARLOW, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DOOR-LATCHES.

Specification forming part of Letters Patent No. **187,698**, dated February 27, 1877; application filed August 3, 1876.

To all whom it may concern:

Be it known that I, WILLIAM A. BARLOW, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Door Locks and Latches; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a side elevation of a combined door lock and latch embodying my invention, with the side of the case removed, showing the operating parts; and Fig. 2 represents a detail plan of the latch and its actuating parts detached.

Like letters of reference indicate like parts.

My invention relates to the means employed in actuating the latch; and consists in the combination, with the hub and latch-lever, of an intermediate lever interposed between the hub and short arm of the latch-lever, whereby the latch is actuated by a movement of the knob in either direction, as will be more fully understood from the following description.

In the drawing, A represents the lock-case, which may be made in the form shown, or in any other suitable form that will receive the operating parts; B, the lock-bolt; C, the tumbler-bar, and D the adjusting-spring, all of which constitute no part of my said invention.

E is the latch-bolt, which passes through a mortise in the edge of the case, in the usual manner. F is the latch-lever, fulcrumed at its upper end to the wall of the case, and hinged at its lower end to the inner end of the latch, as shown, and is so arranged as to admit of an easy vibratory movement. This lever F is made in the form approximating the letter S, and its upper wing or short arm beveled to an angle of about forty-five degrees to the plane of the edge of the case, as shown at *d*, Fig. 1.

C' is a stop-pin secured to the wall of the case, and against which the latch-lever rests when not acted upon by the hub. The latch-lever is provided on its side, near its front

edge, a short distance below its fulcrum, with a lug, *e*, adapted to receive the end of spring D, by which means the latch is forced outward to the position shown in Fig. 1.

H is an intermediate lever, fulcrumed at one end to the walls of the case, and so arranged as to admit of a free and easy tilting movement. The inner end of this lever is made V-shaped, as shown at *n*, and is so adjusted relative to the short arm of the latch-lever as to pass into a notch, *n'*, formed centrally within the beveled edge *d* of the same, when the intermediate lever is moved upward.

G is the hub, journaled at its ends within the side walls of the case, and is provided at its center with a mortise, *f*, through which the knob-spindle passes, in the usual manner. This hub is provided with arms *g g'*, projecting outward from its periphery, one of which is adjusted to bear against the lower edge of the short arm of the latch-lever, and the other against the lower edge of the intermediate lever, as shown in Fig. 1.

The arrangement of the arms *g g'* is such that, as the hub is moved in one direction by turning the knob, the arm *g* is elevated so as to lift the short arm of the latch-lever, thereby moving the latch-bolt inward; and when moved in the opposite direction, the arm *g'* is elevated so as to lift the intermediate lever, which, in its turn, lifts the short arm of the latch-lever, and which again moves the latch-bolt inward; and when force is withdrawn from the knob, the spring D forces the latch-lever and latch outward to its normal position when at rest.

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

The combination, with the latch-lever F and hub G, provided with the arms *g g'*, of the intermediate lever H, interposed between the short arm of the latch-lever and arm *g'* of the hub, substantially as and for the purpose specified.

WILLIAM A. BARLOW.

Witnesses:

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