(Model.)

J. MILTON.

KNOB LATCH.

No. 281,109. Patented July 10, 1883.

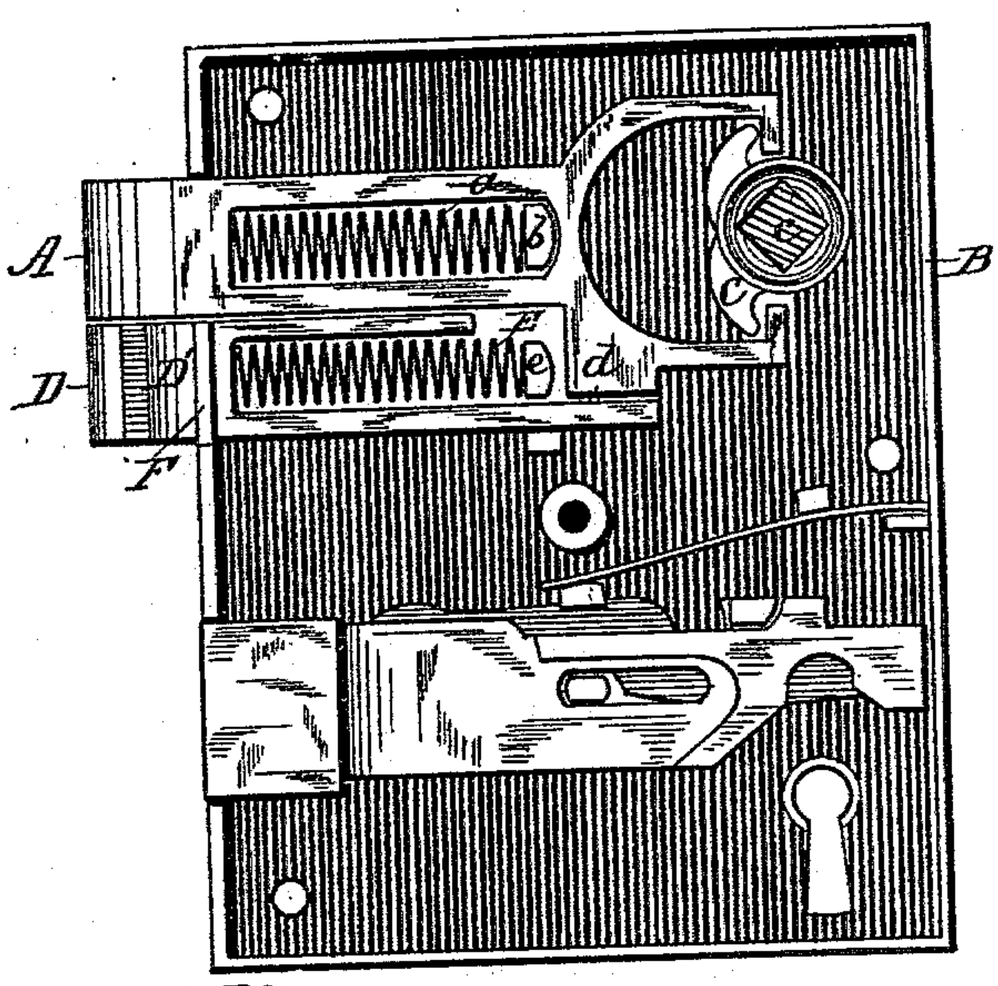

Fig. 1.

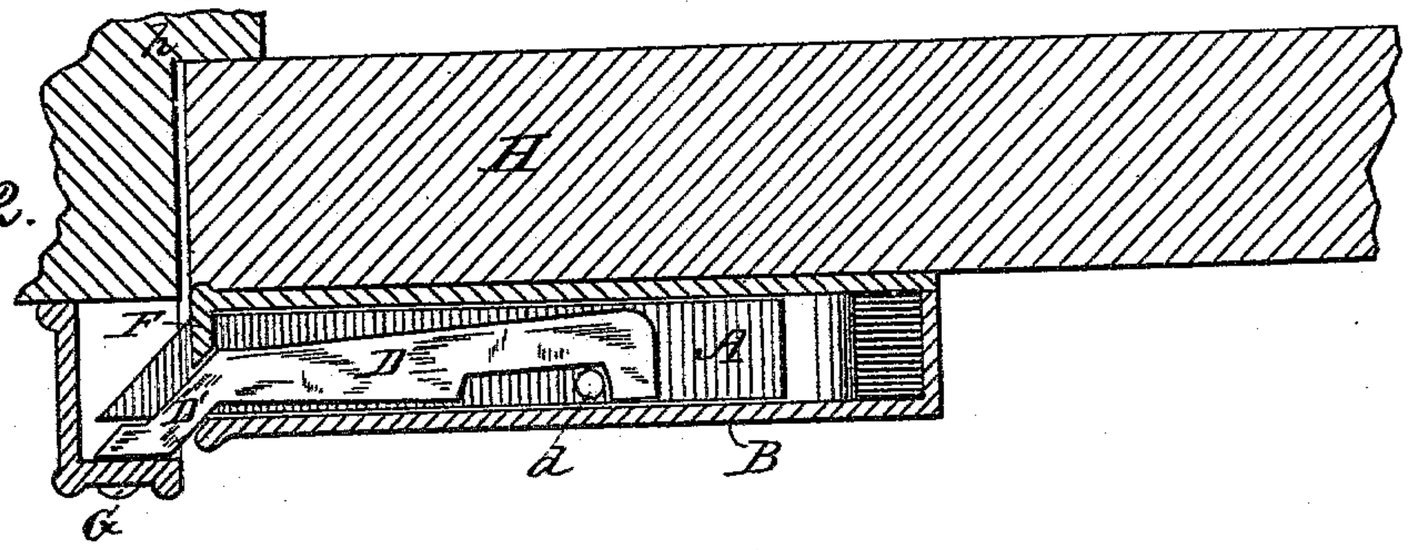

Fig. 2.

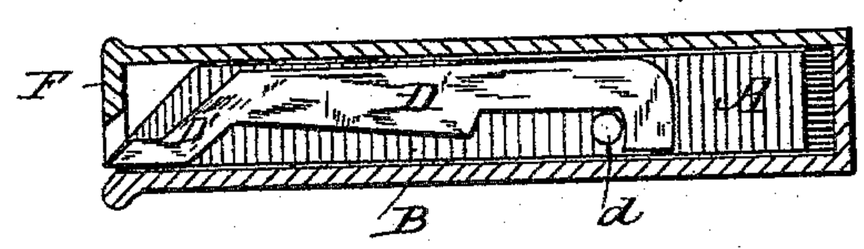

Fig. 3.

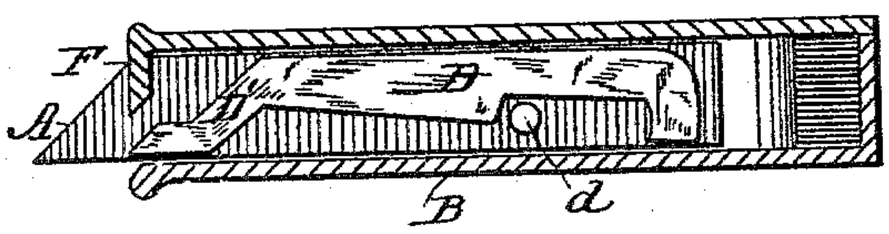

Fig. 4.

WITNESSES:

W. W. Hollingsworth

W. L. Stevens

INVENTOR:

John Milton

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN MILTON, OF HAMILTON, VIRGINIA.

KNOB-LATCH.

SPECIFICATION forming part of Letters Patent No. 281,109, dated July 10, 1883.

Application filed March 9, 1883. (Model.)

To all whom it may concern:

Be it known that I, JOHN MILTON, a citizen of the United States, residing at Hamilton, in the county of Loudoun and State of Virginia, have invented a new and useful Improvement in Knob-Latches for Doors, of which the following is a specification.

My invention relates to that class of knob-latches in which the latch is a sliding bolt continually impelled outward by a spring and operated to draw inward by a tumbler and knob; and it has for its object to prevent the door from rattling by holding it firmly against the jamb.

To this end it consists in the construction and combination of parts hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the interior of a common door-lock and bolt, showing my knob-latch attached thereto. Fig. 2 is a longitudinal horizontal section of the same attached to a common door, showing both latches extended. Fig. 3 is a similar section, showing both latches drawn; and Fig. 4 is a similar view, showing one latch extended and the other partially extended.

A represents the common latch, actuated by the spring *a*, abutting against a lug, *b*, standing from the lock-case B, to slide outward until said latch, at the inner end of the spring-slot, rests against said lug *b*. This latch is provided with the usual hook-ended arms, to be engaged by the wings of the hub C, so that turning the knob-shaft *c* either way retracts the latch.

D represents an associate latch placed above or below the common latch, A, and attached thereto by a lug, *d*, projecting from latch A into a recess in latch D. The lug *d* is so situated in said recess that when latch A is retracted it retracts latch D by means of said lug; but latch A may be advanced without advancing latch D, and latch D is independently advanced similarly to latch A by a spring, E, abutting against a lug, *e*, projecting from the lock-case B.

The forward end of my latch and the adjacent portion of the case are peculiarly shaped, as follows: The projecting end of latch D is reduced in thickness to about one-half of the thickness of latch A, and the aperture in the wall of the case B through which it projects is made to fit it by casting a lug, F, on the case-plate, so that my latch-case costs no more than the old style.

The rear portion, D′, of the projecting end of my latch D is beveled on its outer and inner faces to about forty-five degrees with the face of the door H, to wedge against the sides of its aperture in the wall of the case B as it advances or recedes, thus causing it to advance toward the keeper G at said angle of forty-five degrees, and, bearing against the inner face of the keeper, the latch presses the door H against the door-jamb *h* and prevents the door from rattling.

A portion—say three-sixteenths of an inch—of the projecting end of the latch D is parallel on its outer and inner faces to the face of the door, in order that the latch may advance enough from its casing to take a good hold upon the keeper before it begins pressing to close the door.

I do not limit myself to the exact angle of forty-five degrees for the bevel of the latch, as other angles may be found more appropriate in particular cases; but such a bevel should be used that the friction of the latch on its case will prevent the latch being crowded back in the case by any pressure on the door, the latch being in the meantime pressed forward by a moderate spring. I may also use any other spring than the one shown to press the latch forward.

This latch is operated by the same knob and at the same time as the common latch without the operator knowing any other difference than that the door, when closed, is held tightly and cannot be rattled by the action of wind, nor even by pulling and pushing on the knob, until it is freed by turning the knob.

What I claim as my invention is—

1. The combination, with a sliding knob-latch having a lug projecting from its side, a case for holding the same, and a keeper to be engaged thereby, of an associate beveled-ended recessed latch, loosely secured to the first-mentioned latch, having independent longitudinal motion relative thereto, and a spring for pro-

ducing said independent motion, said case being apertured to fit said beveled end, as and for the purpose specified.

2. The combination, with a sliding knob-latch and a keeper to be engaged thereby, of an accessory latch loosely secured thereto, to be retracted thereby, a spring to advance said accessory latch, the forward end of the accessory latch being recessed and beveled, as described, and a case for holding the same having an aperture fitted to said accessory latch, as described, whereby the forward movement of said latch causes it to advance angularly against the inner face of the keeper, to push the door closed, as specified.

JOHN MILTON.

Witnesses:
W. X. STEVENS,
J. WM. MISTER.