No. 712,899. Patented Nov. 4, 1902.

W. S. BARTHOLOMEW.

LATCH.

(Application filed Apr. 16, 1902.)

(No Model.)

Fig. 1

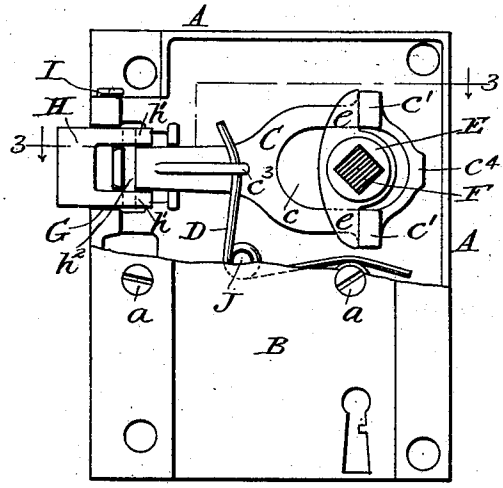


Fig. 2.

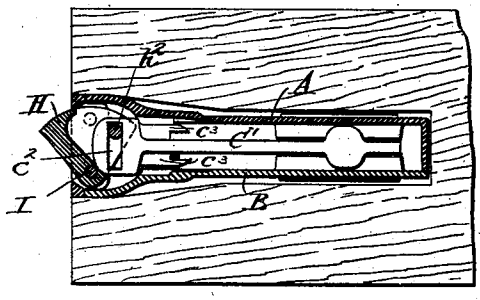


Fig. 3.

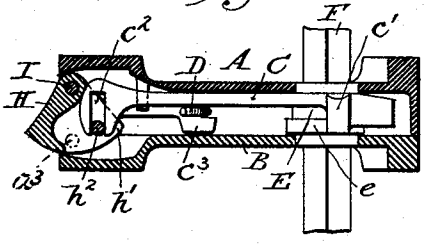


Fig. 4.

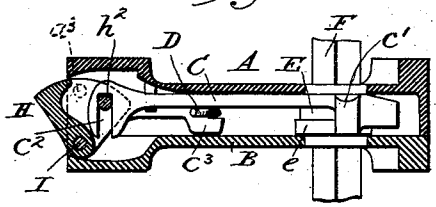


Fig. 5.

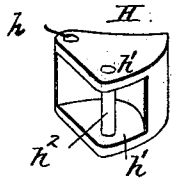


Fig. 7.

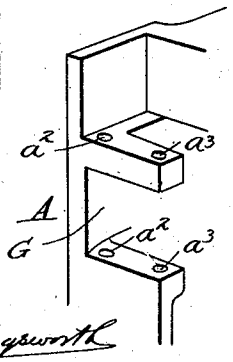
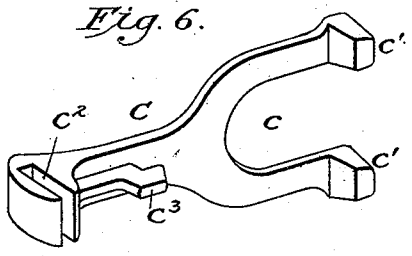


Fig. 6.



Witnesses

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LATCH.

SPECIFICATION forming part of Letters Patent No. 712,899, dated November 4, 1902.

Application filed April 16, 1902. Serial No. 103,193. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. BARTHOLOMEW, a citizen of the United States, residing at Wyncote, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Latches for Door-Locks, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

My invention relates to a latch designed to be applied to that class of locks in which the latch proper for retaining the door in closed position is pivoted to a sliding latch-bolt operated by means of a knob or handle.

The main object of my improvement is to produce a simple, cheap, and efficient lock having a swinging or pivoted latch loosely connected to the sliding latch-plate and which may be quickly and readily reversed, thus changing the pivotal point of the latch from one side of the lock to the other, whereby the lock may be adapted to doors opening either to the right or left.

So far as I am advised a reversible swinging door-latch has not been heretofore used, and while swinging latches are known in the art, as are also solid reversible latches, in no lock or latch heretofore known to me are combined the advantages of simplicity, positiveness of action, easy reversibility, and wide application believed to belong to my improvement.

Referring to the drawings, Figure 1 represents in elevation an outside or rim lock embodying my invention, a portion of the side plate being broken away to expose the swinging latch and its operating mechanism. Fig. 2 is a horizontal section through a mortise-lock, showing a modified construction of parts for operating the swinging latch. Figs. 3 and 4 are sectional views on the line 3 3 of Fig. 1, the swinging latch being shown in opposite or reversed positions. Fig. 5 is a perspective view of the swinging latch. Fig. 6 is a similar view of the sliding latch-plate. Fig. 7 is a view of a portion of the casing.

Similar reference-letters indicate similar parts in the respective figures.

The casing A, which contains the latch-operating mechanism, is covered by a plate B, secured thereto by screws *a*.

C is the sliding latch-plate, which is made in one piece, broadened at its inner end and longitudinally slotted, as at *c*. From the face of the sliding latch-plate, on each side of the slot *c*, projects a lug *c'*, normally held by means of a spring D in contact with the fingers *e* of a hub or stump E, adapted to be rotated by the spindle F to retract the sliding latch-plate C in the ordinary way.

The front edge of the casing A is formed with an opening G, Fig. 7, through which projects a swinging latch H, turning on a pivot-pin I, passing through a bore *h* in the latch and also through holes a^2 or a^3 in the casing. The swinging latch H is centrally cut away at its inner portion, there being left projections *h' h'*, between which extends a pin h^2 to engage a slot c^2 in the enlarged outer end of the sliding latch-plate C. The inward movement of the plate C is limited by means of a stop c^4, adapted to strike the casing A.

The spring D is preferably coiled around a stud J, one end of said spring resting against a fixed part of the casing and the other end upon a notched lug c^3, projecting outwardly from the sliding latch-plate C.

When the latch is to be applied to a door that opens toward the operator and swings to the right, the mechanism is arranged as in Figs. 1 and 3, the swinging latch H being pivoted to the casing by the headed pin I, passing through the openings a^2 (see Fig. 7) in the front end of the casing A. To admit of the reversal of the swinging latch H, the side plate B of the lock is removed and the pin I withdrawn. By slipping the pin h^2, which is secured to the swinging latch H, into the notch c^2 of the sliding latch-plate C, seating the pivot-pin I in the openings a^3, thus necessarily passing it through the swinging latch and replacing the cover-plate B, the lock or latch is ready for use on a door opening to the left, as seen in Fig. 4.

When employed in connection with a mortise-lock, my invention is modified, as indicated in Fig. 2, the principal change being confined to the sliding latch-plate C'. In this modified form of latch-plate the front and rear faces are similar, there being a lug c^3 on each face. The slot c^2 in the enlarged outer end of the sliding latch-plate C' is closed at

each end, the swinging latch being thus retained in connection with said plate. By this arrangement when the swinging latch is reversed the sliding latch-plate is also turned over; but, as heretofore mentioned, both sides or faces of the latch-plate C′ being alike this inversion is permissible.

I do not restrict myself to the exact details of construction, combination, and arrangement herein set forth, it being obvious that minor variations thereof not involving the exercise of invention may be made by the skilled mechanic, and such departures from what is herein described and claimed not involving invention I consider as within the scope and terms of my claim.

Having thus described my invention, I claim—

In combination with a lock or latch casing having a hollow enlargement and also concentrically-paired pivot-holes a^2,a^3 within the side walls thereof, a removable pivot-pin adapted to seat in either pair of said concentric holes, a latch, having a fixed pin, and adapted to be reversed and to swing in the enlargement of the casing when held by said pivot-pin seated in either pair of said concentric holes, a sliding one-piece latch-plate having a transverse slot through which the fixed pin of the latch passes and in which it is permitted to play, a spring for projecting the latch-plate, and a hub or stump in engagement with the opposite end of said latch-plate for retracting the latch-plate when the hub is turned, substantially as set forth.

In testimony whereof I hereunto set my hand and seal.

WILLIAM S. BARTHOLOMEW. [L. S.]

Witnesses:
B. L. COMPTON,
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