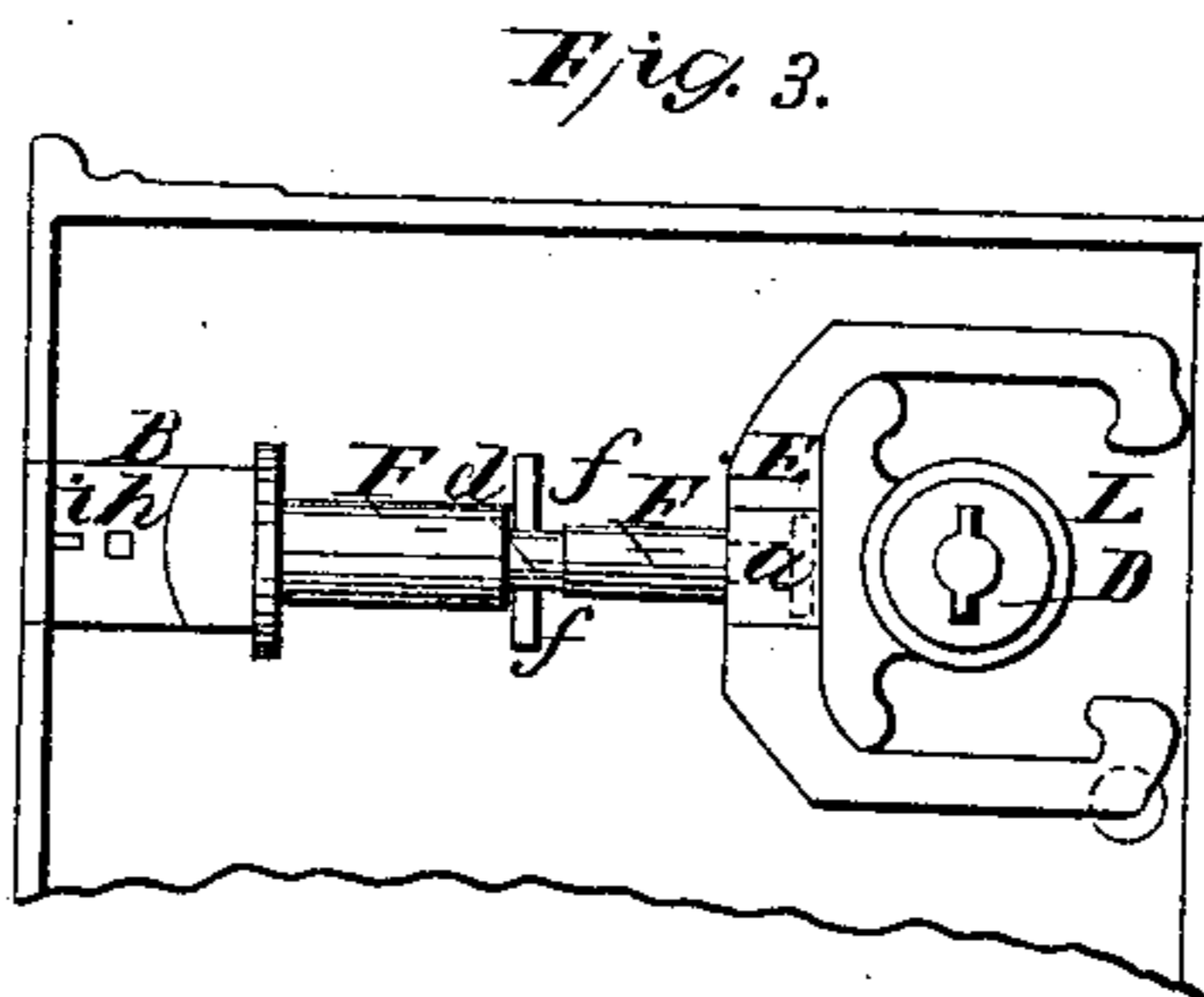
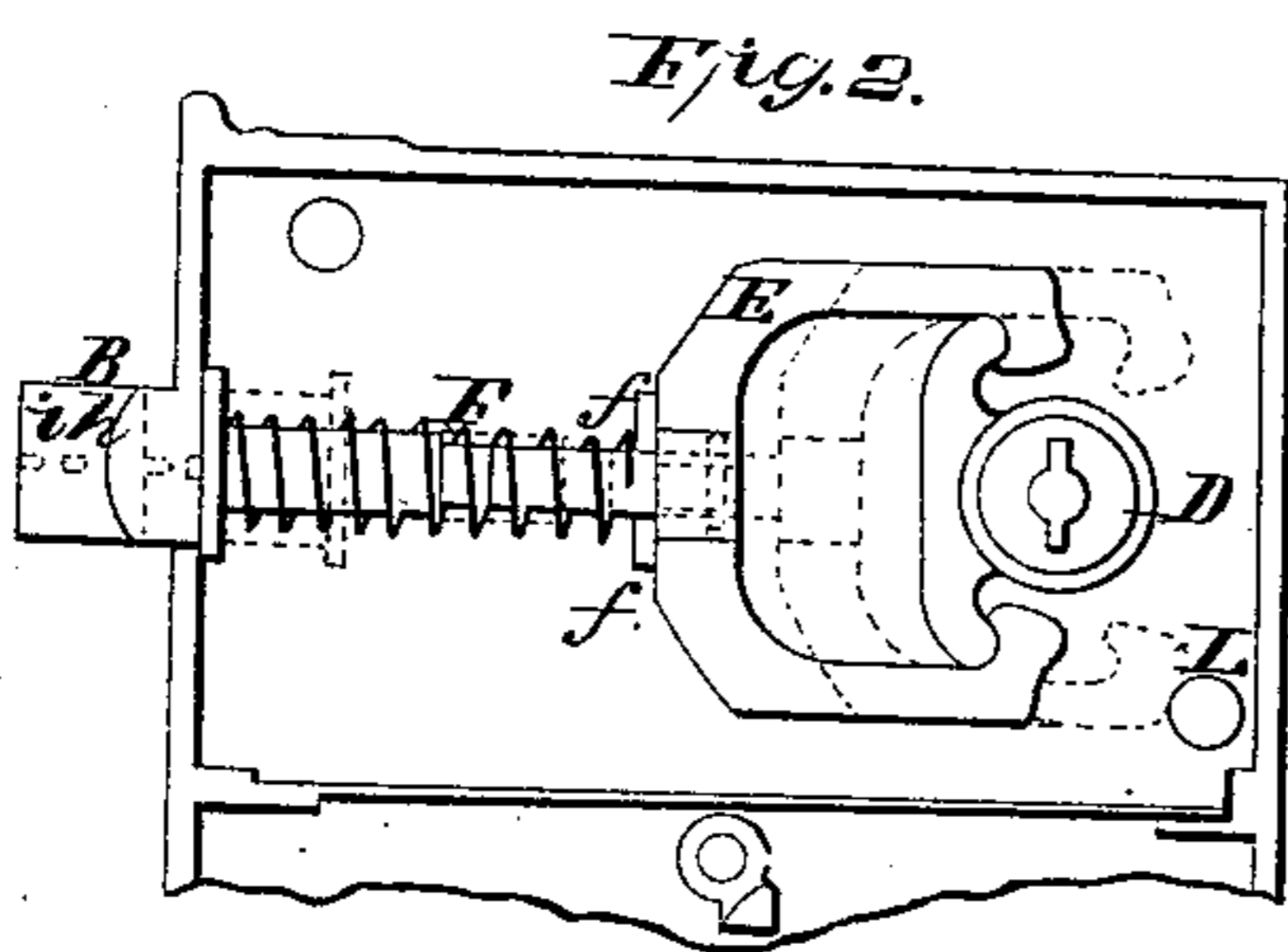
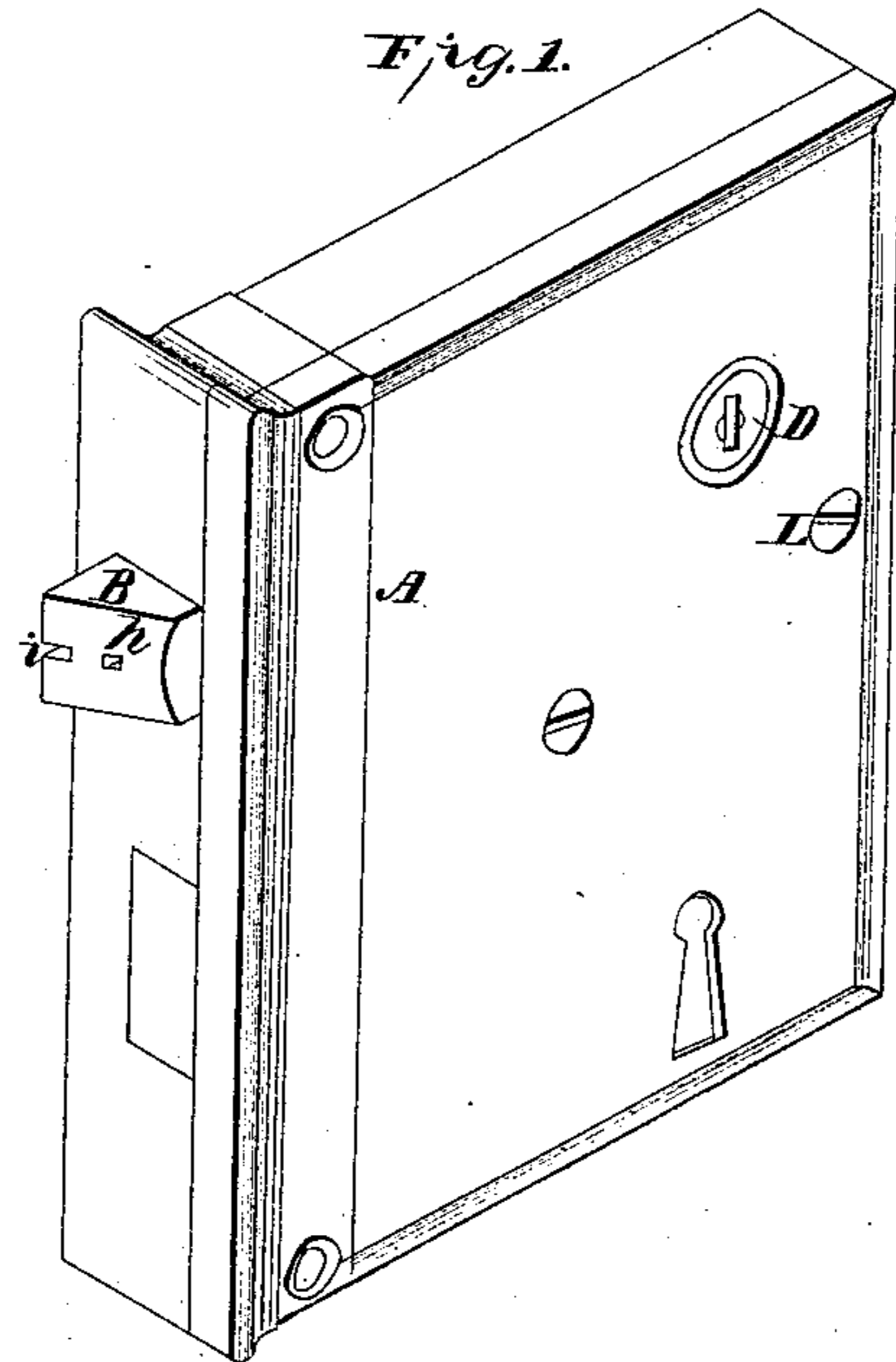


*E. Whitney,*  
*Reversible Latch.*

*N<sup>o</sup> 85,497.*

*Patented Dec. 29, 1868.*



*Witnesses:*  
*John H. Shumway*  
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*Inventor*  
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# United States Patent Office.

ELI WHITNEY, OF NEW HAVEN, CONNECTICUT

Letters Patent No. 85,497, dated December 29, 1868.

## IMPROVEMENT IN REVERSIBLE LATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ELI WHITNEY, of New Haven, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Reversible Latches; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view;

Figure 2, an interior view, showing the construction of the latch; and, in

Figure 3, the same view, to illustrate its operation.

This invention relates to an improvement in knob-latches, whereby the latch is made reversible, so that the same latch may be used upon a door which swings either to the right or left; and

The invention consists in pivoting the latch-bolt, and arranging its connection with the horse-shoe, so that the latch-bolt can be forced into the case, and in that position reversed or set to the right or left, and so that, when forced from the latch-case, it will be retained in the position in which it is set while within the case.

In order to the clear understanding of my invention, I will fully describe the same as illustrated in the accompanying drawings.

A is the case, within which the latch-bolt B and lock-bolt C, with their operative mechanism, are placed, the latch-bolt to be operated by knobs, the spindle of which passes through the follower D in the usual manner.

E is the horse shoe, to which the spindle F of the bolt B is pivoted at *a*, as denoted in fig. 3, so that the bolt may be turned freely on its bearing in the horse-shoe.

The spindle is formed with two flat surfaces on the part F', and, between the part F' and the latch-bolt, an annular groove, *a*, is formed, so that, when the latch-bolt is pressed into the position seen in fig. 3, the said annular groove will come into position between the two lugs *f f*, so that the bolt may be freely turned, and the space between the lugs correspond to the flattened or square part F' of the bolt-spindle, so that, when the bolt is thrown forward, as in fig. 2, the opposite surfaces of the part F' will bear between the lugs *f f*, and prevent the turning of the latch-bolt.

A spiral spring, as denoted in fig. 2, is arranged on the latch-bolt spindle, between the lugs *f f* and the head of the bolt, the tendency of which spring is to force the bolt forward, as seen in fig. 2.

Therefore, when the bolt is set in one position, and it is desirable to reverse the bolt, press the bolt into the case, as denoted in fig. 3, until the groove *d* on the spindle lies between the two lugs, and the bolt-head has passed into the case, so as to be clear from the opening through the face-plate; then the latch-bolt may be turned over, and set to either position for a right or left hand; then, freed from the power which pressed it inward, the latch-bolt will, by the reaction of the spring, be forced out, as in fig. 2.

As a convenient means for thus turning the bolt, I form a small square hole, *h*, in the end of the latch-bolt, so that, by inserting a common nail or other square, pointed instrument into the hole *h*, the latch-bolt may be easily pressed into the case, and turned; or a nick may be formed in the head of the latch-bolt, so that a screw-driver or similar instrument may be inserted therein, to aid in the reversion of the bolt.

To prevent the latch-bolt from being thus forced into the case when the lock is secured to the door, I arrange one of the screws L, which secures the lock to the door, so that it will pass through the case in the rear of the horse-shoe, so that the horse-shoe, when it is forced in, will strike the said screw, as denoted in red, fig. 2, and prevent the latch-bolt from so far entering the case as to come into position where it may be reversed.

This arrangement is applicable to Janus-faced or box-locks, but for these, as well as for mortise-locks, other devices may be employed to prevent the forcing in of the latch-bolt when upon the door.

This invention, though here represented as applied to Janus-faced or box-locks, is equally applicable to locks of other construction.

Having fully described my invention,

What I claim as new and useful, and desire to secure by Letters Patent, is—

1. The arrangement of the latch-bolt, B in combination with the horse-shoe E, so that the latch-bolt must be forced within the case, so as to be reversed, substantially as set forth.

2. In a latch-bolt pivoted to the horse-shoe, so as to be reversed, forming the flattened or square portion F', in combination with the annular groove *d* and lugs *f f*, so that the latch-bolt may be reversed while within the case, and secured by the said lugs when in any other position.

ELI WHITNEY.

Witnesses:

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