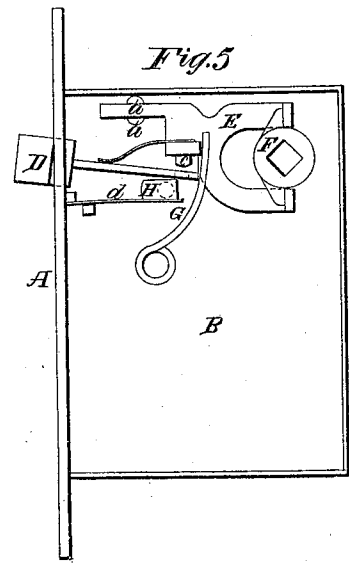
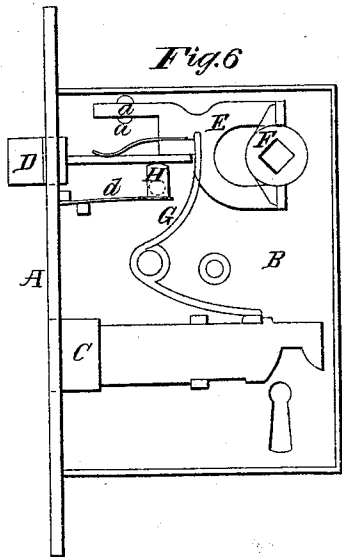
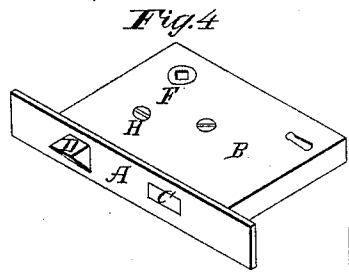
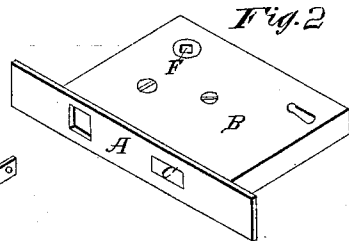
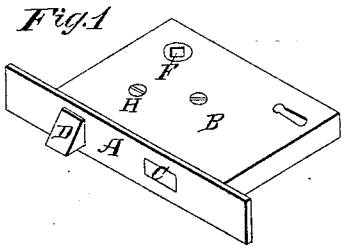


W. T. Munger,
 Reversible Latch.

No 39,203.

Patented July 7, 1863.



Witnesses:
C. C. Crosby
John E. Emler

Inventor:
Walter T. Munger

UNITED STATES PATENT OFFICE.

W. T. MUNGER, OF BRANFORD, CONNECTICUT, ASSIGNOR TO THOMAS KENNEDY, OF SAME PLACE.

IMPROVEMENT IN DOOR LOCKS AND LATCHES.

Specification forming part of Letters Patent No. 39,203, dated July 7, 1863.

To all whom it may concern:

Be it known that I, WALLACE T. MUNGER, of Branford, county of New Haven, and State of Connecticut, have invented new and useful Improvements in Door Locks and Latches; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure is a perspective view of a lock complete, the latch-bolt set for a right hand door. Fig. 2 is the same with the latch-bolt removed and shown detached in Fig. 3. Fig. 4 is the same as Fig. 1 with the latch-bolt set for left hand. Figs. 5 and 6 are interior views enlarged to illustrate the mechanism of the lock.

Same letters refer to like parts.

Door locks and latches are distinguished by the title right and left, according to the swinging of the door to which they are applied.

Before proceeding to a full description of my improvements, I will mention some of the difficulties and objections attending the sale and use of ordinary right and left hand door locks and latches. One of the greatest troubles experienced by dealers arises from the fact that a properly-styled right-hand door is often by the inexperienced termed a left hand door, and vice versa, so that a purchaser often purchases right-hand locks when he wished for left-hand; or a purchaser, not aware of any distinction, orders a quantity of locks and latches without stating either right or left. In such cases the position of the dealer needs no description, neither is further argument required to show what confusion and trouble must necessarily arise, not only to the dealer, but also to the consumer. There have been numerous devices to overcome these and other objections and difficulties, but without fully accomplishing the desired end, from the fact that in most cases it has been required to open the case of the latch and change some part of the mechanism, which, in the hands of any but an expert, but adds to the difficulties by disarranging the parts so far as to render the lock and latch useless. The demands for a lock which should overcome these difficulties, and with an adjustment so simple that the

inexperienced could not disarrange the mechanism of the latch, has suggested the improvements herein described.

My invention consists in making the latch-bolt separate from the "horseshoe," and the two arranged so that the latch-bolt may be inserted through the face-plate either right or left hand, and by turning a cam fix the latch-bolt to the horseshoe, in which position it is operated in the ordinary manner.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the face-plate; B, the case; C, the lock-bolt; D, the latch-bolt; E, the horseshoe. The said horseshoe, instead of being made part of the latch-bolt, as in the ordinary lock, has a tail-piece extending forward between guides. *a a* is operated by the cam F in the ordinary manner.

G is the spring, serving the double purpose of pressing the horseshoe forward and the lock-bolt lever down. The latch-bolt D is made with a thin tail-piece, as see Fig. 3, with a hole in the end of the tail-piece to correspond to a projection, *c*, Fig. 5, from the horseshoe.

H is a cam extending through the plate of the case, as see Figs. 1, 2, 4. I make a slot in the end for convenience of turning. In Fig. 5 this the said cam is shown in the same position in Fig. 2. When the cam is thus turned down, insert the latch-bolt, as shown in Fig. 5. Turn the cam up. This operation will raise the tail of the latch-bolt, and the projection *c* of the horseshoe will enter the hole in the tail-piece, and when the cam is fully turned up, as in Fig. 7, a spring, *d*, holds it in its proper position, and the latch-bolt is firmly fixed to the horseshoe. I perform this operation without opening the lock, simply inserting the latch-bolt in the opening in the face-plate made for the purpose, and turn the cam by means of the before-mentioned slot. To remove the latch-bolt to change from one hand to the other, turn down the cam from the position shown in Figs. 1 and 6 to that shown in Figs. 2 and 5. A spring will force the latch-bolt from the horseshoe, as seen in Fig. 5; thence it may be removed and changed to either hand. It will be readily seen that thus

I do not expose any part of the machinery of my lock to danger of misplacement or loss, as I remove simply the bolt, and that alone.

Other means than the cam described may be employed to fix and release the latch-bolt but I believe the means described to be the best and simplest.

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

1. The combination of the horseshoe E, latch-bolt D, and cam H, or its equivalent, substantially as herein specified.

2. The combination described of the latch-bolt D and cam H for the purpose substantially as herein specified.

W. T. MUNGER.

Witnesses:

C. O. CROSBY,
JOHN E. EARLE.