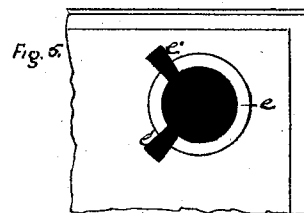
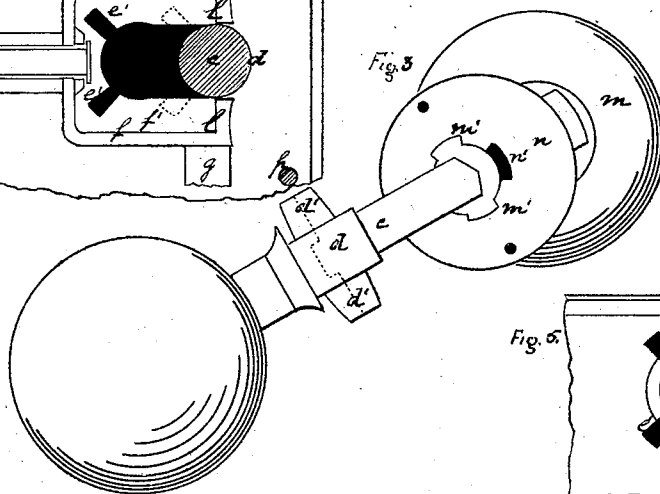
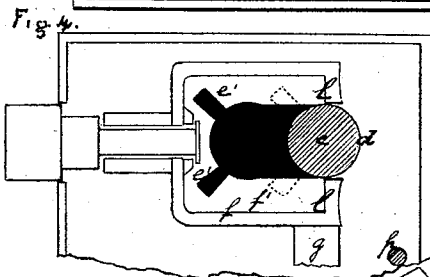
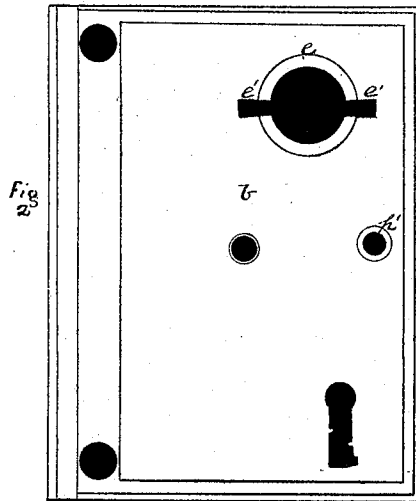
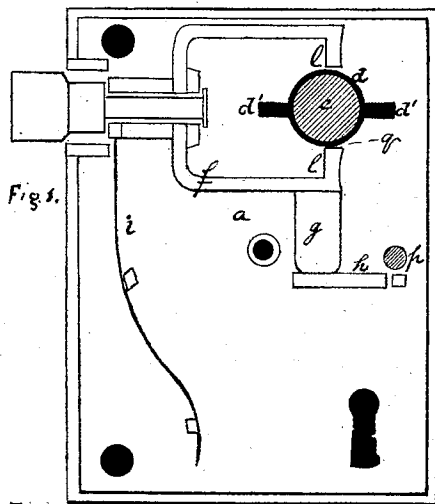


J. HAMILL & J. CLUETT.
Reversible Latches.

No. 152,369.

Patented June 23, 1874.



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UNITED STATES PATENT OFFICE.

JOHN HAMILL AND JOSEPH CLUETT, OF ALLEGHENY CITY, PENNSYLVANIA.

IMPROVEMENT IN REVERSIBLE LATCHES.

Specification forming part of Letters Patent No. **152,369**, dated June 23, 1874; application filed February 5, 1874.

To all whom it may concern:

Be it known that we, JOHN HAMILL and JOSEPH CLUETT, of Allegheny City, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Locks; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a view of our improved lock, the cap being removed. Fig. 2 is a view of the cap. Fig. 3 is a view of the knobs, circle-plate, spindle, and hub. Fig. 4 is a modified form of slide and hub, and Fig. 5 is a corresponding form of opening in the cap.

Our invention consists in a reversible latch, in which the reversal is permitted by removing the hub through the cap or face by a suitable opening, and in providing the slide with a plate or overlapping lips to cover the openings through which the hub is inserted.

To enable others skilled in the art to make and use our invention, we will describe the same more fully.

The case *a*, with its cap *b*, and its operative parts in general, are made in the usual way. The spindle *c* and the hub *d* are cast together in one piece, or the hub may be cast upon the spindle, and the spindle is inserted through its ordinary aperture *e*, which is provided with side openings or slots *e'* for the passage of the ends of the hub. The slide *f* is provided with an arm, *g*, the lower end of which rests against the guide *h*. This slide is operated by a spring, *i*, in the usual way, to throw forward the latch-bolt. Upon the sides of the slide I place the plate *f'*, having recesses or openings *f''* corresponding to the openings *e'* radiating from the hub-opening in the lock-case. To insert the hub into place, it is then necessary to push the slide back by pressing on the latch-head until the opening in its plate *f'* is coincident with the opening in the side of the lock. The hub being then inserted, the slide springs forward to place, the plate *f'* extending across the end slots in the sides of the lock, as shown in Figs. 1 and 4. The knob *m*, the neck of which is furnished with the usual square hole for the reception of the outer end of the spindle, is provided with a pair of lugs, *m'*. These

lugs are designed to be passed through corresponding openings in the circle-plate *n*, and, when turned past such openings, encounter the square edges or sides of the opening *n'*, so that the knob cannot be detached therefrom without turning it back to its entering position. The attachment-point, for convenience, is marked by corresponding lines or cuts made on the plate *n*, and on the neck of the knob *m*. When these two lines are coincident the attachment-point is indicated. The circle-plate is then fastened by its screws to the side of the door, and the rotation or turning of the knob, which is necessary for the purpose of opening or closing the door, is not sufficient to cause the lugs to turn enough to pass out of the openings *n'*. The knobs being attached, a screw, *p*, is inserted in the screw-hole *p'* in the rear of the stop or arm *g*, which is attached to the slide, so that the backward movement of the slide is arrested thereby, and the wings of the hub prevented from turning past the corner of the lugs on the rear end of the slide. It is then evident that, when this screw is inserted, the parts of the lock and the detachable knobs are firmly secured in their proper position, as the slide has a movement so limited as to prevent the wings of the hub from coming opposite to the openings through which they are inserted into the case, and, hence, prevents the withdrawal of the spindle from the detachable knob, or from the lock; and the movement of the slide is also so limited that the lugs on the neck of the detachable knob shall not turn enough to pass through the openings *n'*. When it is desired to reverse the latch-bolt, the screw *p* is taken out and the hub withdrawn. Then the slide is free to spring forward, by means of the spring *i*, sufficiently far to allow the latch-head to clear its square opening. It may then be reversed in the usual way—pushed back, the hub righted, the screw inserted, and the lock may be applied to the door. The wings of the hub may project on the sides of the spindle at various angles, as indicated in Figs. 4 and 5, the only difference being that the knob is turned a little more than when they extend out at right angles. If desired, the spindle and hub may be cast in two parts, which, when in place, key into each other, as shown in Fig. 3. In this

case, the overlaps f^1 hold the two parts together.

This improvement enables us to use these locks without the objection of having the side openings exposed.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The slide f , provided with a plate, f^1 , which covers the side slots e' of the opening e , as described.

2. In a reversible latch, the hub or follower formed on the spindle, and removable, through the side of the case by a suitable opening, to

allow the slide to spring the latch-head beyond its opening, so that it may be turned, as described.

In testimony whereof we, the said JOHN HAMILL and JOSEPH CLUETT, have hereunto set our hands.

JOHN HAMILL.

his
JOSEPH $\times$ CLUETT.
mark.

Witnesses:

JAMES J. KAY,
T. B. KERR.