W. M. GRISCOM & F. GROSSMAN.

REVERSIBLE KNOB-LATCH.

No. 186,556. Patented Jan. 23, 1877.

Fig. 1.

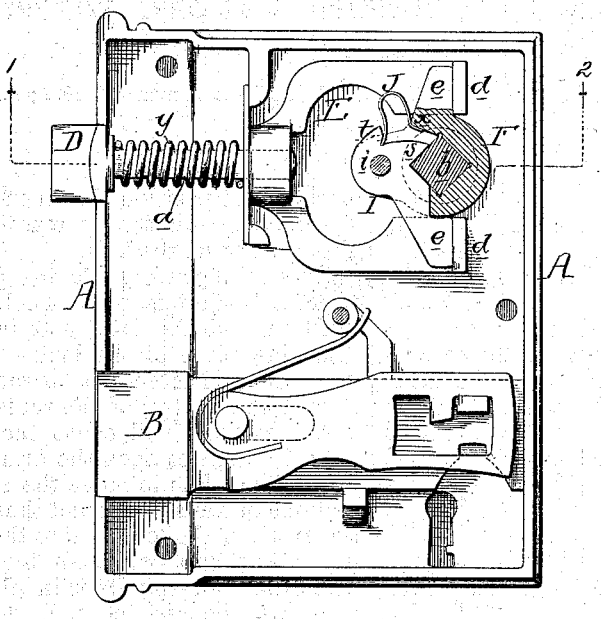


Fig. 2.

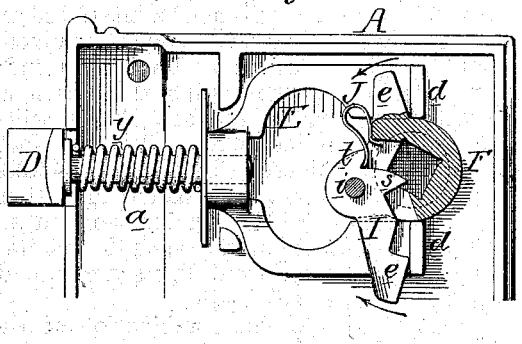
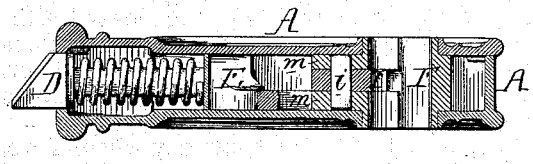


Fig. 3.



Witnesses.
Hermann Moessner
Harry Smith

William M. Griscom
and Francis Grossman
by their Attorneys.
Howson and Sons

UNITED STATES PATENT OFFICE.

WILLIAM M. GRISCOM AND FRANCIS GROSSMAN, OF READING, PENNSYLVANIA, ASSIGNORS TO SAID WILLIAM M. GRISCOM.

IMPROVEMENT IN REVERSIBLE KNOB-LATCHES.

Specification forming part of Letters Patent No. **186,556**, dated January 23, 1877; application filed January 5, 1877.

To all whom it may concern:

Be it known that we, WILLIAM M. GRISCOM and FRANCIS GROSSMAN, of Reading, Pennsylvania, have invented certain Improvements in Reversible Latch-Locks, of which the following is a specification:

The object of our invention is to so construct a reversible latch-lock that the latch can only be reversed in the absence of the knob-spindle from the hub; and this object we attain in the manner which we will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a front view of the lock, partly in section, and with the face-plate removed; Fig. 2, a view of a portion of the same with the parts in a different position; and Fig. 3, a sectional plan on the line 1 2, Fig. 1.

A is the casing of the lock, in the lower portion of which are arranged the parts for operating the locking-bolt B; but as these parts are similar in construction and operation to those usually employed in locks of this class, description of them here will be unnecessary. D is the latch-bolt, the spindle *a* of which is swiveled at the inner end to a yoke, E, which embraces the hub F on the knob-spindle *b*, and has lugs *d d*, on which usually act the arms *e e* on the hub, in order to retract the latch-bolt. In the present instance, however, only one of the arms *e* is secured to the hub, the other forming part of a lever, I, adapted to a slot cut in the hub F, and pivoted, by means of a pin, *i*, to lugs *m m* on the same. In order to cheapen the lock this pin *i* is not riveted, being retained in place by the opposite face-plates of the lock. The body of the lever I is cut away, so that when the lever is in the position shown in Fig. 1 it will not interfere with the continuity of the square opening in the hub for the reception of the knob-spindle, this cutting away of the lever forming on the same a finger, *s*. Against a lug, *t*, on the short arm of the lever, bears one end of a bent spring, J, the opposite end of which is hooked around a shoulder, *x*, on the hub, so that the risk of accidental displacement of the spring is prevented. The tendency of the spring J is to maintain the parts in the position shown in Fig. 1, so that the knob-spindle can be readily inserted into the opening in the hub.

When the parts are in the position shown in Fig. 1—that is, with the knob-spindle in position, and the latch-bolt in the recess in the edge plate of the lock—any attempt to draw the said latch-bolt forward, so as to free it from the control of the recess, and allow it to be reversed, will cause the lugs *d* on the yoke E to so act upon the arms *e* of the hub F and lever I as to move the same in the directions of the arrows, and thus tend to throw the arm *s* of the lever I into the spindle-opening of the hub, as shown in Fig. 2, so that when the knob-spindle is in place this movement will be resisted, and the reversing of the latch-bolt prevented; but when the spindle is not in place the withdrawal of the latch-bolt will not be interfered with.

We have shown our invention as applied to a latch-bolt having an independent spring, *y*, for resisting the thrust against the outer end of the bolt; but it will be evident that it can be applied to latch-bolts of a different construction with equal facility.

We claim as our invention—

1. The combination, in a reversible latch-lock, of the yoke E and its lugs *d* with the slotted hub F, its arm *e*, and pivoted lever I, as set forth.

2. The combination of the slotted hub F and its pivoted lever I, having a finger, *s*, with a spring, J, as described.

3. The combination of the slotted hub F and its pivoted lever I with the bent spring J, bearing at one end against the lug *t* on the lever, and hooked at the other end, for adaptation to a shoulder, *x*, on the hub, as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM M. GRISCOM.
FRANCIS GROSSMAN.

Witnesses:
HARRY SMITH,
S. D. DYER.