A. M. Hill,

Reversible Latch.

No. 108,261. Patented Oct. 11. 1870.

fig. 1.

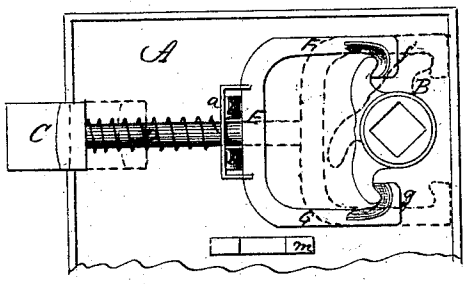


fig. 2

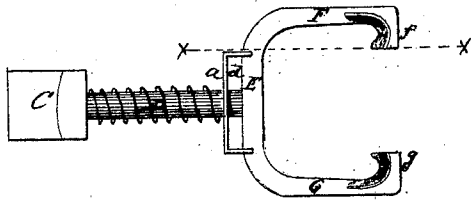


fig. 3

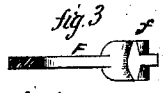
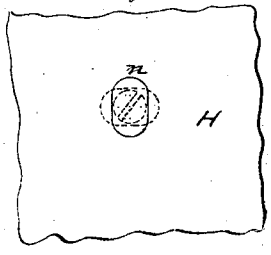


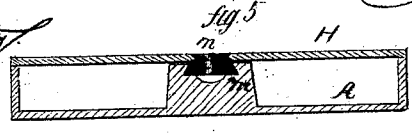
fig. 4



Witnesses
A. L. Tibbits
J. H. Stunnenberg

Albert M. Hill
Inventor
By his Attorney.
Wm. E. Earl

fig. 5



United States Patent Office.

ALBERT M. HILL, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 108,261, dated October 11, 1870.

IMPROVEMENT IN REVERSIBLE KNOB 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, ALBERT M. HILL, 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 drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents in—

Figure 1, a view of the latch, with the plate removed;

Figure 2, the yoke and latch-bolt, detached;

Figure 3, a section of the yoke, on line *x x*;

Figure 4, an inside view of the plate, showing the cam; and in

Figure 5, a section, showing the manner of attaching the plate to the case.

This invention relates to an improvement in "reversible knob-latches," and consists in constructing the lugs of the yoke with a double incline, so that the bolt may be easily inserted, either side up, without derangement of the follower.

A is the case, of common construction.

B, the follower, constructed and arranged to receive the knob-spindle in the usual manner.

C, the latch-bolt, formed upon or attached to a spindle, D, and the said spindle formed upon or rigidly attached to the yoke E, the yoke being constructed with the two arms F and G, each of the arms provided respectively with lugs *f g*, both turning inward onto the follower, as seen in fig. 1.

On the spindle I arrange a loop, *a*, the ends of which turn against the yoke, and so as to leave a space, *d*, between the loop and yoke, as seen in fig. 2.

In the case a slotted stud, *b*, is formed, corresponding to the space *d* between the loop and yoke, so that, when the bolt and yoke are set within the case, the stud *b* will pass into the space between the loop and yoke, as seen in fig. 1.

Between the loop and bolt-head a spring is arranged, as seen in figs. 1 and 2, so that, when the bolt is drawn or pressed in, as denoted by broken lines, fig. 1, the loop remains against the stud to support the spring, and when released, the spring throws out the bolt in the usual manner.

For the purpose of reversing the latch I form the lugs *f g*, as seen in fig. 3, with a double incline, (outward,) so that, when the bolt is set into position, the incline will allow the yoke to pass freely down onto the follower, without any liability of disarranging the follower. To reverse the latch, remove the plate, take out the yoke and bolt, as seen in fig. 2, turn it over, and replace it.

H is the plate, or removable side of the case. Upon its inside I form a cam, *n*, turning upon a center, which extends through to the outside, as seen in fig. 5. The extremes of the cam are of dovetail form, the two sides flat, as seen in figs. 4 and 5.

m is a stud formed upon the case, and fitted to receive the said cam, the seat for the cam being dovetailed, and corresponding with the extremes of the cam; therefore, with the cam in position, as seen in fig. 4, set the plate in position. The cam passes into the recess in the stud *m*. Then, with a screw-driver or other suitable instrument, turn the cam in position as denoted by broken lines, fig. 4, and as also seen in fig. 5. The ends of the cam lock into the recess and secure the plate in position. By this arrangement the plate is removed by simply a quarter turn of the screw-driver, and there is no liability to lose the screw, as in a common method of securing the plate, and the expense of the cam is no more than a screw.

I do not wish to be understood as broadly claiming the latch-bolt and yoke, constructed so as to be reversed by removing them from the case, as such, I am aware, are very old; but

I do claim—

The double inclined lugs *f g*, formed upon the arms of the yoke E, combined with the follower B, so as to be set onto the said follower, substantially as set forth.

ALBERT M. HILL.

Witnesses:

H. H. BUNNELL,

F. B. LANE.