P. MATHES.

Reversible Latch.

No. 168,036. Patented Sept. 21, 1875.

Fig. 1.

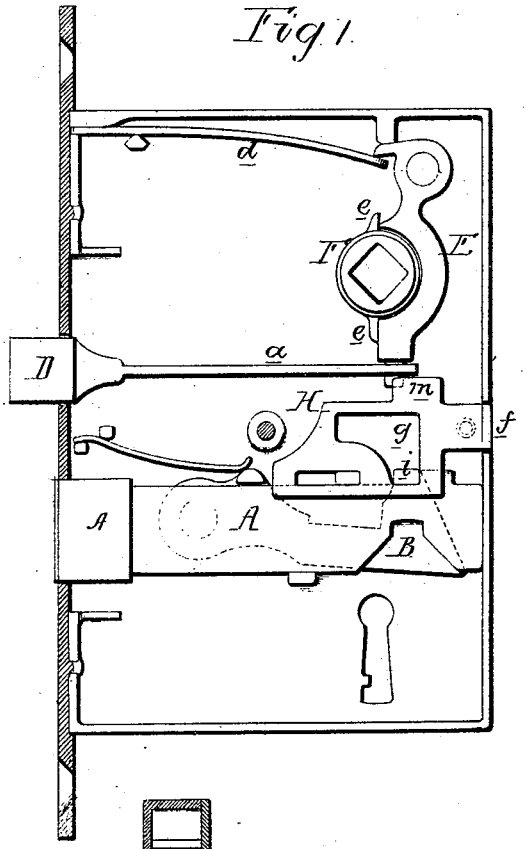


Fig. 2.

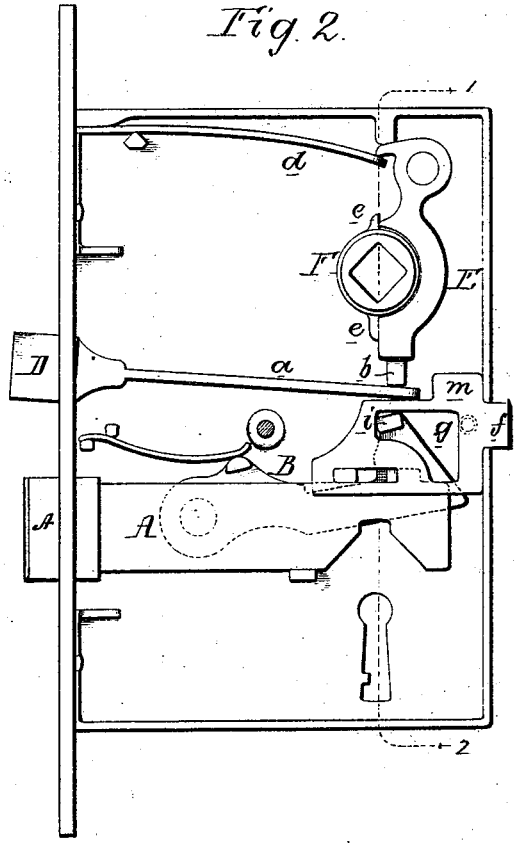


Fig. 3.

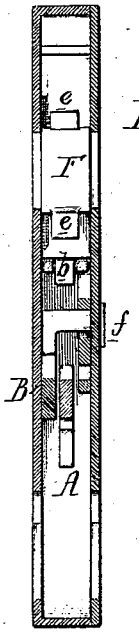
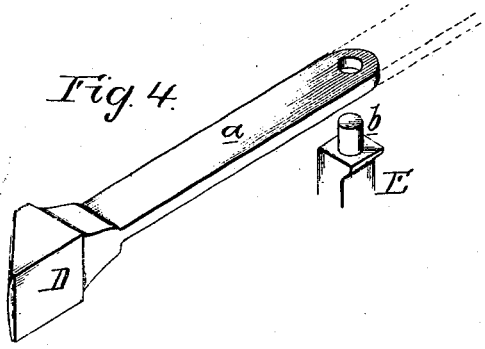


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

PHILIP MATHES, OF EASTON, PENNSYLVANIA.

IMPROVEMENT IN REVERSIBLE LATCHES.

Specification forming part of Letters Patent No. **168,036**, dated September 21, 1875; application filed August 26, 1875.

To all whom it may concern:

Be it known that I, PHILIP MATHES, of Easton, Pennsylvania, have invented certain new and useful Improvements in Reversible Latch-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a face view of the lock with the cover removed. Fig. 2 is the same view with the parts in a new position. Fig. 3 is a vertical section on the line 1 2 of Fig. 2. Fig. 4 is a perspective view of parts of my invention.

My invention relates to certain improvements in reversible latches for locks; and the object of my invention is to produce a cheap and simple door-lock with a reversible latch, so as to be easily adapted to use on right or left hand doors.

My invention consists in a combination of devices hereinafter described and claimed.

In order that those skilled in the art may make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the said drawings, A is the bolt and B the tumbler of the lock arranged to be operated by the key in the usual manner, and D is the inclined head of the latch, the stem of which consists of a flat horizontal plate, *a*, adapted at its inner end to a pin, *b*, on the lower end of the lever E, which is acted on at the upper end by a spring, *d*, as usual, and is arranged to be operated by the fingers *e e* of the hub F of the knob-spindle in the ordinary manner. H is a sliding plate provided with a projection, *f*, which extends slightly above the face of the lock-plate, so as to be grasped by the fingers in order to move said plate to and fro for a purpose explained hereafter.

An opening, *g*, contracted at the bottom is formed in the plate H, and into this opening projects a stud, *i*, on the tumbler B, while on the upper edge of the plate is formed a lug, *m*, which, when said plate is in the position shown in Fig. 1, projects under the inner edge of the stem *a* of the latch, and holds the same in position on the pin *b;* but when the plate H is moved to the position shown in Fig. 2, its lug *m* is removed from under the end of the stem *a*, which can then be depressed until it is clear of the pin *b*, when it is free to be withdrawn endwise from the lock, so that the position of the latch D can be changed to suit either a right-handed or a left-handed door. When the bolt A, however, is in either of its extreme positions the stud *i* of the tumbler B projects into the contracted lower portion of the recess *g* of the plate H, so that all movement of the same, and consequently of the latch-stem *a*, is prevented; but when the bolt has been moved by the key to a position about half-way, or thereabout, between its extreme positions, the stud *i* of the tumbler is brought into line with the enlarged upper portion of the recess *g*, and the plate H can be moved to and fro at pleasure.

It will be observed more especially in Fig. 4, that the stem *a* is flat, and secured to the head D of the latch in a horizontal position, the object of this arrangement being to present the resisting power of the stem in the most effective manner against any strain upon the same.

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

The plate H, provided with the projection *f*, recess *g*, and lug *m*, in combination with the lever E *b*, the latch D, having the stem *a*, and the tumbler B, provided with the stud *i*, substantially as and for the purpose set forth.

PHILIP MATHES.

Witnesses:

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