(No Model.)

F. J. BIGGS.

REVERSIBLE LATCH.

No. 346,349. Patented July 27, 1886.

Fig. 3.

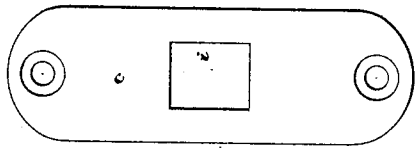


Fig. 2.

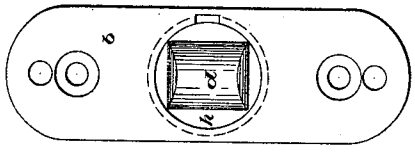
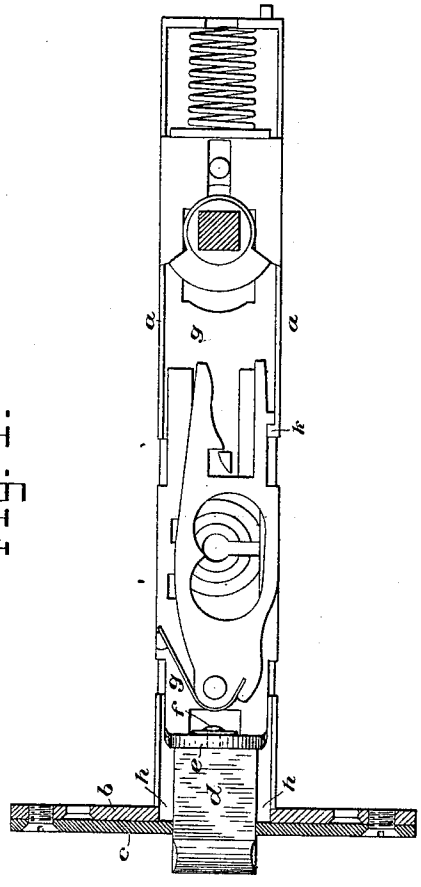


Fig. 1.



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UNITED STATES PATENT OFFICE.

FREDERICK JAMES BIGGS, OF LONDON, ENGLAND.

REVERSIBLE LATCH.

SPECIFICATION forming part of Letters Patent No. 346,349, dated July 27, 1886.

Application filed April 6, 1886. Serial No. 197,975. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK JAMES BIGGS, of London, England, merchant, have invented certain new and useful Improvements in Reversible Latches, of which the following is a specification.

My invention has reference to reversible latches in which the latch proper is capable of being reversed by a swiveling or turning movement, so as to adapt it, as required, either to a right-hand or left-hand door. With these reversible latches some contrivance is necessary to keep the latch from turning when once properly adjusted, and for this purpose a latch has been made with the face-plate hinged to the case, so that it may be turned out far enough to clear the latch to permit the latch to be turned, and when turned back against the case its latch-aperture engages the latch and prevents the turning thereof. This construction necessitates that the latch shall be turned in the proper direction before the case is fastened to the door, since it is fastened thereto by means of the face-plate, the turning out of which would necessitate that it be unscrewed and that the case be partly displaced; hence the latch cannot be turned while the case is fastened in its final position.

My invention provides a latch the case of which is secured to the door independently of the face-plate, preferably by a fore-plate connected to the case, while the face-plate, the function of which is to prevent the turning of the latch, is removable from the fore-plate and case, and is attached thereto after the case has been finally secured to the door; hence the latch is adjustable to either right or left after its case has been permanently fastened to the door.

I will describe my invention as applied to a mortise-lock, for which it is more particularly intended.

Figure 1 is a side elevation of the lock with the front half of the case removed, and with the fore-plate and the face-plate in section. Fig. 2 is a front elevation of the lock with the face-plate removed, and Fig. 3 a front elevation of the face-plate.

The lock shown is a tubular lock; but the invention is equally applicable to mortise-locks of other form.

a is the lock case or frame; *b*, the fore-plate, which is cast with or permanently fixed to one-half of the case *a*.

c is the face-plate, and *d* the latch, one side of its front portion being beveled or inclined in the ordinary manner.

The latch *d* is free to be turned on its axis, being swiveled to the bolt *g* by means of a pin formed on it, which passes through the ear *e* on the bolt, and through a washer, *f*, being riveted down thereon. The fore-plate *b* has an aperture, *h*, for the latch, which is large enough to enable the latch *d* to be turned on its axis therein. When the face-plate *c* is removed, the latch can be turned so as to adapt it to either a right-hand or a left-hand door. The face-plate has a latch-aperture, *i*, Fig. 3, which is not large enough to permit the latch to be turned therein. This aperture *i* is preferably rectangular, fitting the cross-section of the latch; but this is not essential, as any shape that will engage the latch *d* and prevent its turning will serve. With this arrangement, when the lock has been fitted to the door and the fore-plate *b* has been screwed thereto in the usual way, the position of the latch can be reversed, if necessary, before screwing on the face-plate *c*, while after the face-plate has been screwed in place the latch cannot be turned.

The stop *k*, which limits the inward travel of the bolt *g* with the latch *d*, should be so placed as to prevent the latch in its inward travel passing quite beyond the face-plate *c*, as if it did so it would be liable to move slightly on its axis, and would not be able to return. The lock mechanism may be of any ordinary character.

In the case of locks having a latch whose height or thickness from top to bottom is greater than the width of the lock, a hole in the fore-plate *b* for the latch to turn in could not be made large enough. This difficulty can be overcome by adjusting the play of the locking-plate, so that when thrown forward by means of a key or otherwise the latch proper, *d*, is entirely beyond the fore-plate *b*, and can therefore be turned when the face-plate *c* is not in place. In this case it is desirable, but not essential, that the disk or piece *e* should occupy the aperture *h* in the fore-plate when the locking-plate is thrown forward.

Although specially intended for mortise-locks, my invention can also be applied to other locks—such as rim-locks, for example. In this case a removable face-plate would be attached to the ordinary fore or front end plate of the lock-case, and would have an aperture not large enough to allow the latch to turn therein, while the fore or front end plate would have a latch-aperture large enough to permit the latch to turn; or, as above described, the play of the locking-plate would be so adjusted that when thrown forward the latch proper would be entirely beyond the fore or front end plate, and could therefore be turned until the face-plate was put in place; or the ordinary fore or front end plate may itself be the removable plate, and when removed allowing the latch to be turned, the aperture in the plate being too small to allow of the latch turning when said plate is in place.

What I claim, and desire to secure by Letters Patent, is—

1. A reversible latch consisting of the combination of a case, a swiveled latch capable of turning to right or left therein, a removable face-plate having an aperture for said latch, which, when applied, prevents the latch from turning, and means independent of said face-plate for securing the case to a door, substantially as set forth.

2. A reversible latch consisting of the combination of a case, a fore-plate connected thereto, a swiveled latch capable of turning in said case to right or left, and a face-plate which, when applied to said case, engages the latch and prevents its turning, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

FREDERICK JAMES BIGGS.

Witnesses:

GEORGE ADAMS,

GEORGE C. BACON.