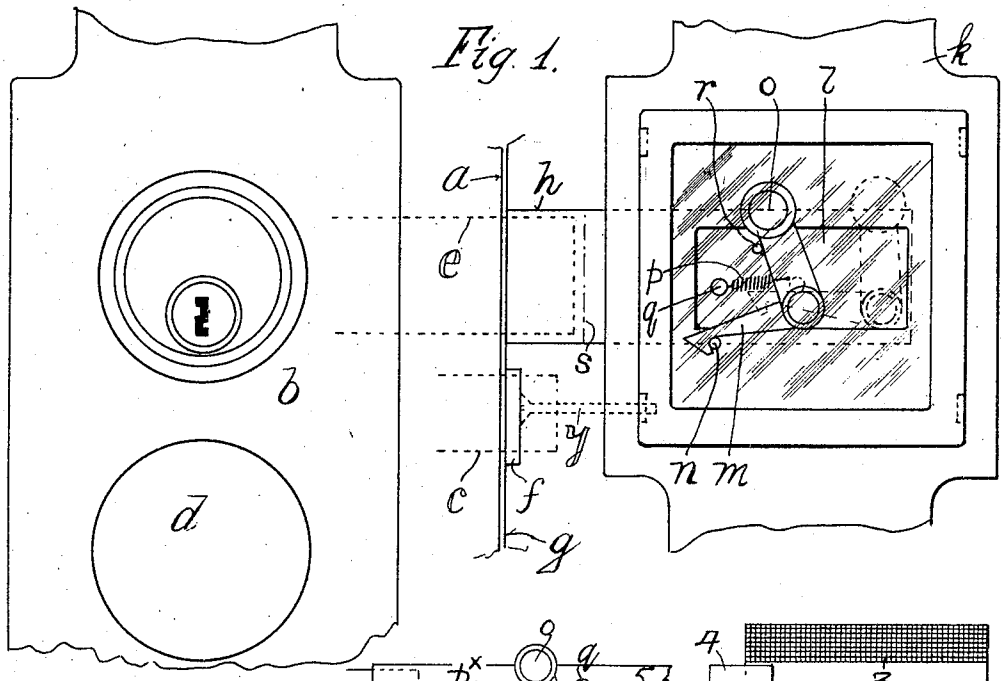
No. 779,173. PATENTED JAN. 3, 1905.

B. F. MERRITT.

LOCK.

APPLICATION FILED MAY 28, 1904.

Fig. 1.



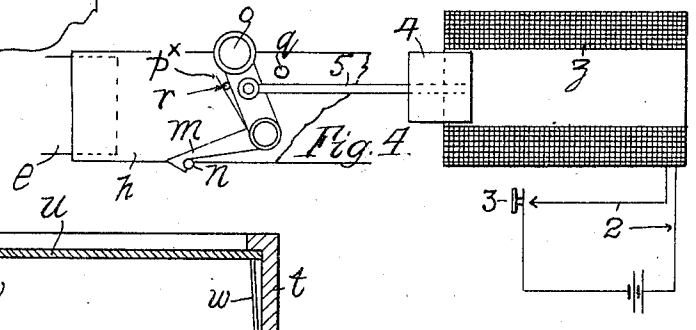


Fig. 4.

Fig. 2.

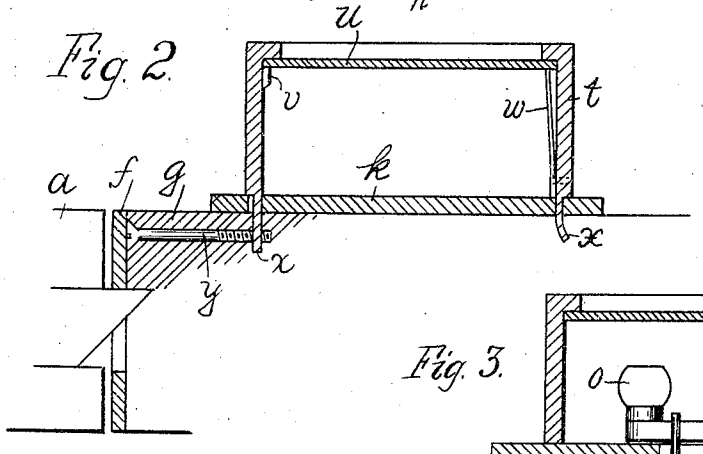
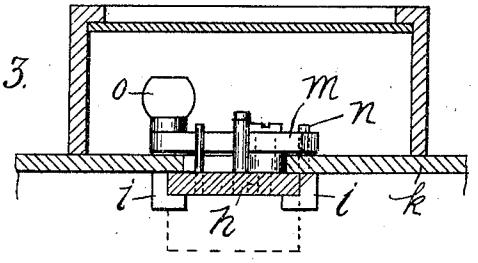


Fig. 3.



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UNITED STATES PATENT OFFICE.

BENJAMIN F. MERRITT, OF EAST ORANGE, NEW JERSEY.

LOCK.

SPECIFICATION forming part of Letters Patent No. 779,173, dated January 3, 1905.

Application filed May 28, 1904. Serial No. 210,225.

To all whom it may concern:

Be it known that I, BENJAMIN F. MERRITT, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Locks, of which the following is a specification.

The primary object of this invention is to provide means whereby a person locked in a building and having no key wherewith to unlock a door may nevertheless quickly and readily open the door from the inside, and so escape.

Another object is to provide a construction by means of which a cover-plate forming part of the means whereby the primary object of the invention is attained may be replaced.

Other objects will appear hereinafter.

The invention consists of features of construction and combinations of devices hereinafter described, and more particularly pointed out in the appended claims.

One form of the invention is illustrated in the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation, partly broken away, of a door and lock in which the invention is embodied. Fig. 2 is a horizontal sectional view. Fig. 3 is a vertical sectional view; and Fig. 4 is a front view, partly diagrammatic, of a modified arrangement.

The reference-letter *a* designates a door carrying a lock *b*, having the usual beveled working bolt *c*, operated by the usual knob *d*, and a locking-bolt *e*, which is operated by a suitable key.

The reference *f* marks a striker-plate or striker which is attached in a removable manner, as usual, to the jamb or another door *g* and with which the bolt *c* coacts, as usual.

The letter *h* marks a strike which is movable into and out of position for preventing by coaction with the bolt *e* the opening of the door. In the instance shown in the drawings the door is assumed to be a swinging door, so the strike *h* is made to move into and out of the path of the bolt *e* when the door swings and the said bolt is out in locking position; but the strike *h* may be made to move into and out of the path of a locking-bolt constructed otherwise and also moving otherwise into and out of locking position. The strike *h* shown is slidable in the guides *i* on the back of a plate *k*, which is fixed to the part *g*, the dotted lines in Fig. 3 indicating the block on the end of the strike *h*, with which the bolt *e* coacts. The plate *k* is slotted at *l*, and a catch *m* is pivoted on the strike *h* and lies in front of the plate *k* in position to engage with a pin *n*, which is fixed to the said plate, and thereby to lock the strike *h* in its working position. For convenience in working the catch *m* has a handle *o* rigidly connected therewith, and a spring *p*, connected with said handle and with a pin *q* on the strike *h*, draws the handle over against a stop *r*, also on the strike *h*.

On pushing the handle *o* to the right the catch *m* is freed from the pin *n*, and when the catch strikes against the pin *q* the strike is moved to the right until its face next the door *a* passes beyond the end of the bolt *e*, as indicated by the line *s*, when the door may be opened, notwithstanding the fact that the bolt *e* is shot for locking.

In order to protect the catch and strike *h* against molestation, a box *t* is provided for inclosing the catch and for wholly covering the slot *l*, said box having a glass front *u*, which is held in place by lugs *v* and springs *w*, and also having ears of lugs *x*, which pass through slots in the plate *k*. A pin or screw *y*, whose head is covered by the removable strike *f*, engages with one of the lugs to hold the box in place, those lugs *v* at the side of the box opposite to that having the lug wherewith pin *y* engages being bent back, as shown, so as to hold that side of the box in place.

A person without a key locked in a building having its doors provided with the above-described device and compelled to get out, as by a fire, can easily break the glass *u* and then draw back the strike *h*, and so unlock the door.

In Fig. 4 is shown a solenoid *z*, an electric circuit 2 including said solenoid, and a circuit-breaker 3, together with a soft-iron plunger 4 and a link 5 for connecting said plunger with

the catch m, whereby the device may be operated from any part of the building by one or another of a series of circuit-breakers arranged as in call-bells, as well as at the spot where the strike h is located. A flat spring $p^{\times}$, fast at one end to the catch or its handle and bearing at its other end against the pin r, draws the handle against the pin when the solenoid is deënergized. When the solenoid is energized, the core 4 is drawn inward of the solenoid, and the handle o is drawn over against the pin q, whose location on the strike h may be changed, as shown, and then the strike h and catch m are drawn along until the bolt e is freed. The endwise motion of the strike h may be limited by suitable stops, as will be understood.

What is claimed is—

1. In a lock for doors, the combination with the locking-bolt, of a striker coacting therewith and movable into and out of position for such coaction, a catch on said strike, a fixed part with which said catch engages to hold the strike in working position, and a glass-fronted box inclosing said catch and protecting catch and strike from molestation.

2. In a lock for doors, the combination with the locking-bolt, of a strike movable into and out of position for coaction therewith in locking the door, a catch on said strike, a fixed part with which said catch engages to hold the strike in working position, a removable box inclosing said catch, and a replaceable glass front to said box.

3. In a lock for doors, the combination with the locking-bolt, of a strike movable into and out of position for coaction with said bolt in locking the door, a catch for holding said strike in working position, and a breakable protection for said catch.

4. In a lock for doors, the combination with the locking-bolt, of a strike movable into and out of position for coaction with said bolt in locking the door, a catch for holding said strike in working position, a removable box inclosing said catch, and a glass front to said box.

5. In a lock for doors, the combination with the locking-bolt, of a strike movable into and out of position for coaction with said bolt in locking the door, a catch for holding said strike in working position, a glass-fronted box inclosing said catch and provided with lugs at opposite sides thereof, a plate provided with openings for said lugs and fixed to the part carrying said strike, a removable fixed strike, and a pin under the fixed strike and engaging with one of said lugs to hold the box in place.

Signed at New York, in the county of New York and State of New York, this 9th day of April, A. D. 1904.

BENJAMIN F. MERRITT.

Witnesses:

FRANK RYALL,

R. W. BARKLEY.