

F. EGGE.

LOCK.

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1,038,864.

Patented Sept. 17, 1912.

Fig. 1.

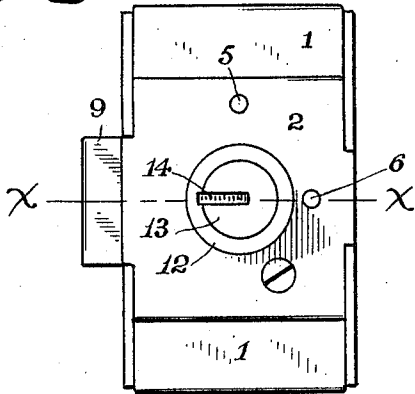


Fig. 2.

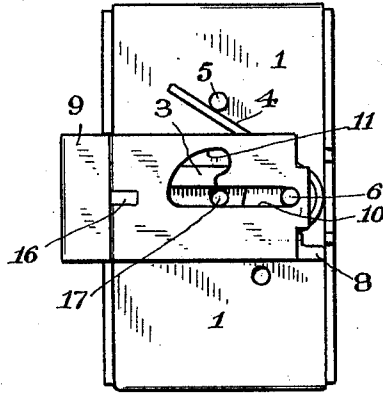


Fig. 3.

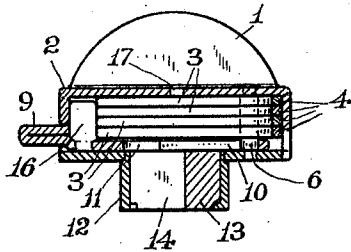


Fig. 4.

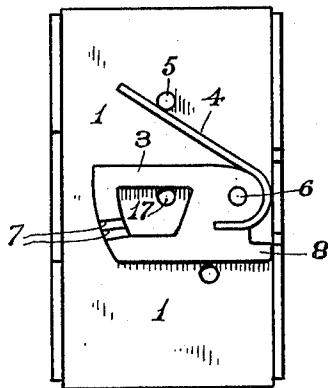
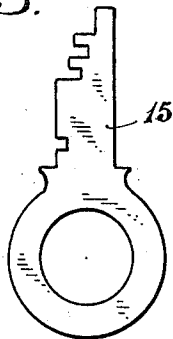


Fig. 5.



WITNESSES:

H. A. Lamb.
M. J. Longden

INVENTOR.

F. Egge.

BY

W. M. Miller

ATTORNEY

UNITED STATES PATENT OFFICE.

FREDERICK EGGE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE SMITH & EGGE MFG. CO., OF BRIDGEPORT, CONNECTICUT, A CORPORATION OF CONNECTICUT.

LOCK.

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To all whom it may concern:

Be it known that I, FREDERICK EGGE, a citizen of the United States, residing in the city of Bridgeport, county of Fairfield, and State of Connecticut, have invented certain new and useful Improvements in Locks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements in locks, and has for its object to provide a device of this sort in which the bolt shall be so disposed with respect to the tumblers that successful tampering with the lock, as by means of a wire or pick tool for the purpose of opening the same, will be rendered practically impossible, and with this end in view my invention consists in certain details of construction and combination of parts hereinafter fully described and then particularly pointed out in the claim which concludes this description.

In the accompanying drawing which forms part of this application Figure 1 is an elevation of my improved lock in completed form—Fig. 2 an elevation with the cover plate removed—Fig. 3 a section at the line *x, x*, of Fig. 1—Fig. 4 a view similar to Fig. 2 but with the bolt removed, and Fig. 5 a detail elevation of the key.

Similar numerals of reference denote like parts in the several figures of the drawing.

My present improvement has nothing whatever to do with any particular construction of tumblers, but merely relates to the relative disposition of the bolt and tumblers in such manner that it is practically impossible to manipulate the latter by means of a pick tool so that their gates can be brought into alinement for the purpose of withdrawing the bolt.

1 is the casing formed of sheet metal, and 2 the cover plate secured to the casing and inclosing the mechanism of the lock.

3 are the tumblers each of which is provided with the usual spring 4 confined against the pin 5 extending from the bottom of the casing, said tumblers being pivoted around a post 6 likewise projecting from said casing, each tumbler being provided with the usual gate 7.

The tumblers near their pivoted ends are each provided with a rectangular shouldered

portion 8 which normally abuts against the side of the casing 1 so as to insure a normal fixed position of the tumblers when they are in locking positions, and the post 6 extends above the uppermost tumbler for the purpose presently to be explained.

9 is the bolt which rests upon the uppermost tumbler and is provided with an elongated slot 10 through which the post 6 extends, this construction being for the purpose of properly guiding the bolt in its movements. The bolt is cut away as shown at 11 so as to afford a striking surface for the key in projecting and retracting said bolt, and the slot 10 leads into this cut away portion.

12 is a hollow hub secured to and projecting from the cover plate 2 and within this hub is confined a solid rotary key plug 13 provided with a slotted way 14 for the key.

15 is the key which has no special novelty and is merely provided with wards to engage the tumblers to bring the gates into proper alinement, so that the lug 16 depending from the bottom of the bolt may enter said gates when the key acts on the bolt to withdraw the same.

The bottom of the casing has a perforation 17 which acts as a guide and centering point for the extremity of the key, so that when the latter is inserted through the plug 13 it will be properly centered and guided so that the wards will operate against the tumblers to bring the gates of the same in line and to subsequently impinge against the cut away portion 11 to retract the bolt, the projection of the bolt being effected by the reverse turning of the key so that the latter will impinge against the opposite wall of the cut away portion 11 and force the bolt outwardly until the lug 16 has passed the tumblers, whereupon the latter will rearrange themselves in normal position.

It will be observed that that portion of the key immediately above the wards is utilized to act against the bolt much in the same manner as the wards themselves act against the tumblers, and that the latter are protected as against tampering by the bolt itself. Were the bolt located beneath the tumblers as usual, it would be comparatively simple to insert a pick tool and effect the requisite binding of the tumblers so that the latter could be manipulated by a second pick until the gates were in line,

but in my present improvement this is rendered impossible.

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

5 In a lock, in combination, with the casing and a series of spring actuated tumblers pivotally mounted on a post, said tumblers having gates located at the front ends of the
10 tumblers, a bolt which completely overlies the outermost tumbler and the gates and formed with a narrow longitudinal slot of

but slightly greater width than the diameter of the post in which the outer end of said post engages to guide the bolt in its sliding 15 movements, said longitudinal slot being enlarged at its front end to receive the key.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK EGGE.

Witnesses:

F. W. SMITH, Jr.,
M. T. LONGDEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."