

S. N. BADGER.

LOCK.

APPLICATION FILED MAR. 18, 1909.

949,409.

Patented Feb. 15, 1910.

Fig. 1.

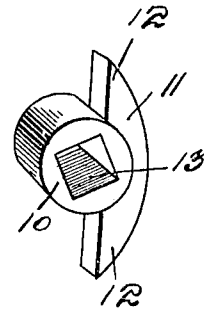
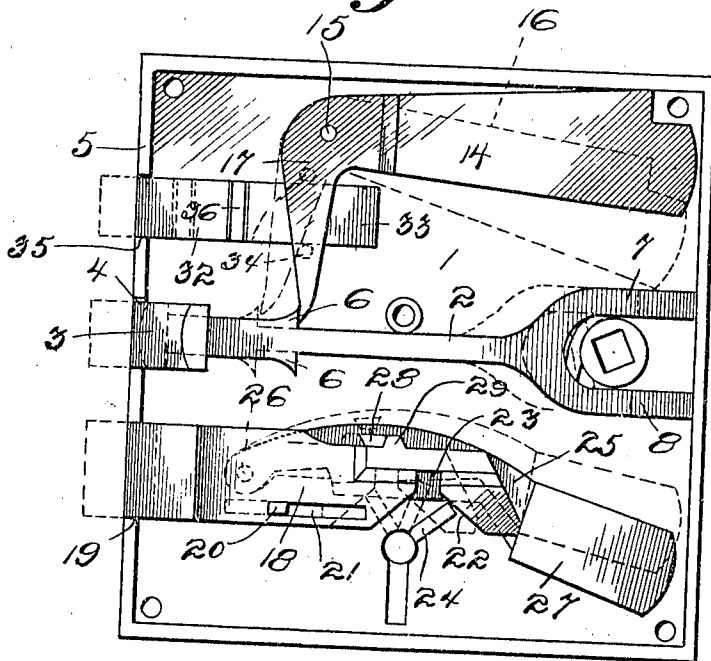


Fig. 3.

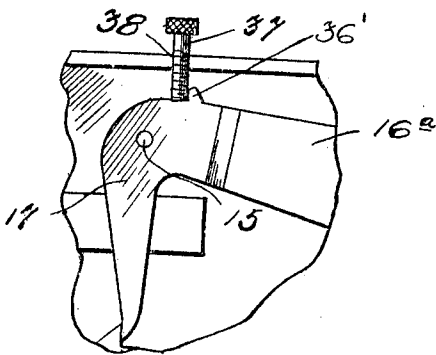


Fig. 6.

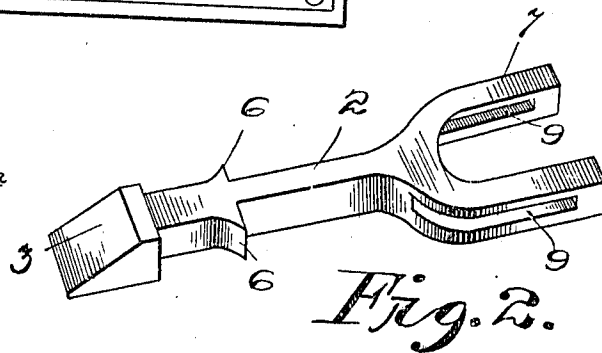


Fig. 2.

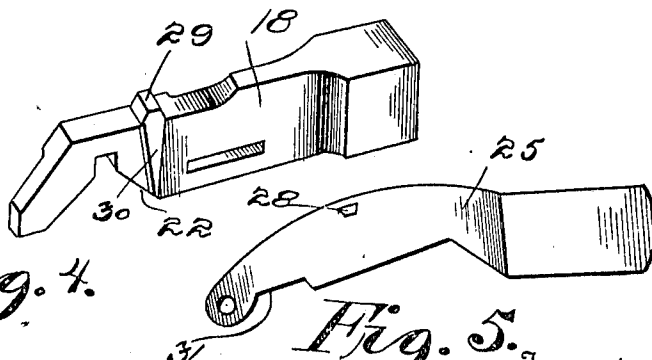


Fig. 4.

Fig. 5.
Inventor
Sanford N. Badger
By E. E. Swann
Attorney.

Witnesses
J. L. McCallahan,
J. L. McCallahan.

UNITED STATES PATENT OFFICE.

SANFORD N. BADGER, OF DERBY, INDIANA.

LOCK.

949,409.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed March 18, 1909. Serial No. 484,243.

To all whom it may concern:

Be it known that I, SANFORD N. BADGER, a citizen of the United States, residing at Derby, in the county of Perry and State of Indiana, have invented certain new and useful Improvements in Locks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improved door-latch and lock combined, and has for its object the production of a lock which is simple in construction and consists of a comparatively small number of parts.

Another object of this invention is the production of a lock, in which springs are entirely dispensed with, as springs are liable to become displaced, or broken, thus rendering the lock useless.

With these and other objects in view this invention consists of certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a plan view of my improved lock and latch with the outer plate removed; Fig. 2 is a perspective view of the latch-member; Fig. 3 is a perspective view of the sleeve for operating the latch-member; Fig. 4 is a perspective view of the sliding bolt; Fig. 5 is a perspective view of the weight-member; and, Fig. 6 is an embodiment showing the locking-means for the weight-lever cooperating with the latch-member.

Referring to the drawing by numerals 1 designates a casing adapted to be applied to a door. In the casing 1 is slidably mounted a latch-member 2, which has its outer end 3 sliding in a recess, or opening 4, in the flange 5 of the casing. The latch-member 2 is provided intermediate its ends, upon each side, with a lateral projection 6 and is provided with a fork-shaped inner end, comprising a pair of fingers 7 and 8. These fingers 7 and 8 are provided with longitudinally-extending slots 9. A sleeve 10 is carried by the casing 1 and is provided with a flange-portion 11, which extends around one side of the sleeve and constitutes laterally-extending portions 12. This sleeve is provided with a square aperture 13, in which is adapted to be positioned the shank of a knob for readily rotating the sleeve-member 10. The laterally-extending portions 12 of the sleeve 10 are adapted to

work in the slots 9 of the fingers 7 and 8. As the sleeve is rotated one of the laterally-extending portions 12 will engage against the rear end of the aperture 9 and withdraw the latch-member 2 within the casing 1 as shown in full lines in Fig. 1.

A weight-member 14 is pivotally mounted in the casing as at 15, and said weight-member comprises an enlarged body-portion 16 and a reduced depending-portion 17, which depending-portion 17 tapers toward its lower end. The lower end engages one of the laterally-extending portions 6 of the latch-member 2, and as the body-portion 16 of the weight-member 14 is heavier than the reduced-portion 17, when the latch-member 2 is drawn back, as shown in full lines in Fig. 1, the weight-member will tend to push the same forward, as shown in dotted lines, and, therefore, it will be seen that the latch-member 2 will be normally held in an extended position as shown in dotted lines.

Positioned in the casing, preferably, below the latch-member 2 is a locking-bolt 18, which has its forward end sliding in an opening 19 in the flange 5 of the casing 1 and the rear end of the lock-member 18 is held up by means of a lug 20, formed upon the casing and extending, or working, in a slot 21 formed in the lock-member. The locking-bolt 18 is also provided with a recess 22, which is substantially V-shaped, and terminates at its inner end in a substantially U-shaped recess 23, and this recess is adapted to be engaged by a key 24. Behind, or to one side of the locking-bolt, which is of less thickness than the casing between the walls of the casing is a weight-lever 25 having one end pivoted to the wall of the casing as at 26. Upon the other end of the lever is formed a weight 27, which keeps said end normally depressed. A lug 28 is formed upon the lever 25, which is adapted to engage a lug 29 formed upon the upper edge of the locking-bolt 18. When the locking-bolt 18 is in the withdrawn position, as shown in full lines, the lug 28 will engage the front edge of the lug 29 and the locking-bolt 18 will be prevented from being withdrawn from the casing, but when it is desired to lock, or have the bolt 18 in an extended position the key 24 is rotated, which will raise the weight-lever 25 as shown in dotted lines and reciprocate or slide the lock-bolt 18 forward, and thereby lock the same. Upon the rear face of the locking-bolt 18 is formed

a raised portion 30, which extends from the lug 29 across the body of the locking-bolt 18 to the V-shaped notch 22, and said raised portion 30 is adapted to rest upon the outer
 5 face of the weight-member 25, and, therefore, it will be obvious that the body of the locking-member 18 will be raised over the weight-member 25 preventing the contact
 10 of said locking-member 18 with the weight-member 25, and said raised portion 30 will act as a runner and allow the weight-member to be easily raised upward. Upon the under surface of the weight-member 25 is
 15 formed a notch 31, which is so formed as to prevent the weight-member 25 from coming in contact with the lug 20 in case the weight-member should drop far enough down. Near the upper end of the casing 1 is also
 20 formed a sliding bolt 32, which is provided with a reduced-portion 33, which reduced-portion works under the depending-portion 17 of the weight-member 16. The casing 1 is provided with a plurality of lugs 34 and said lugs are positioned above and below
 25 said sliding-bolt 32 and the outer end 33 of the sliding-bolt is positioned in an aperture 35 of the flange 5 of the casing 1, and said aperture together with the lugs 34 act as a guide for said bolt. On each side of the
 30 bolt 32 are formed gripping-portions 36 to allow the sliding-bolt to be easily operated or reciprocated.

In Fig. 6 I have shown an embodiment of my invention showing a locking-means

for the weight-lever 14 to hold the sliding-bolt, or the latch-bolt 2 in an extended position to lock the same in an extended position. Upon the weight-lever 16^a is formed an upwardly projecting lug 36' and a pin 37 is threaded through an aperture 38 in
 40 the upper flange of the casing 1, and said pin is adapted to engage the lug 36' and prevent the latching-member from being forced into the casing, and thus hold the same in a locked position. 45

What I claim is:—

A device of the class described comprising a casing, a latch-member, a weight-member comprising an enlarged body-portion, and a reduced-extension tapering toward its lower
 50 end, said end adapted to engage said latch-member and normally hold the same in an extended position, an extension formed upon the upper edge of said weight-lever, a threaded pin adapted to engage said extension and hold said weight-lever in a set
 55 position for preventing the reciprocation of said latch-member, and means cooperating with said latch-member whereby when said pin is removed said latch-member can
 60 be reciprocated.

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

SANFORD N. BADGER.

Witnesses:

THOS. C. HARGIS,
 DAVID C. MITCHELL.