

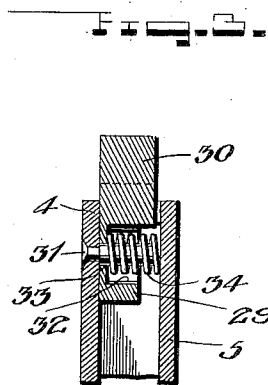
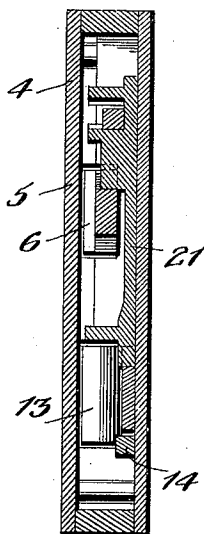
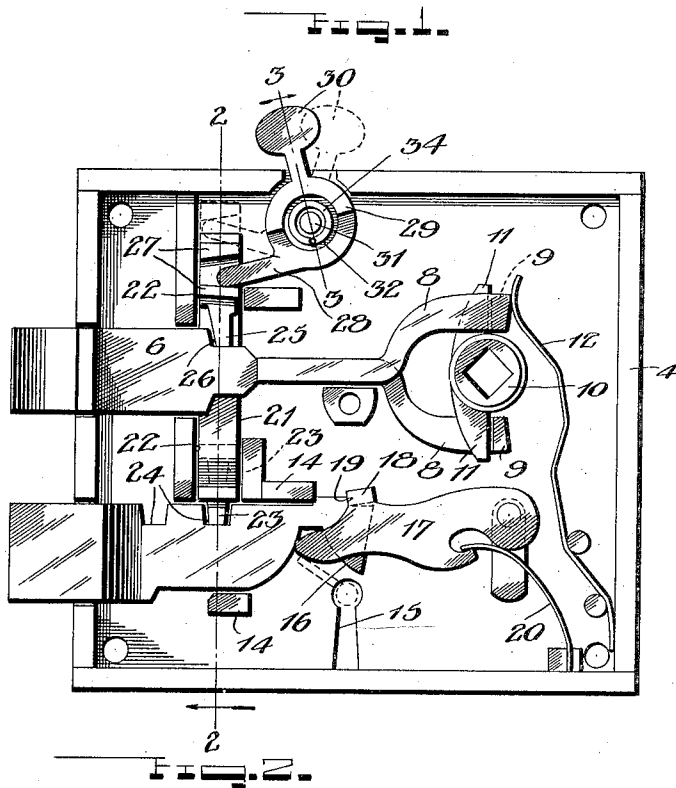
F. CONNAGHAN.

LOCK.

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1,057,330.

Patented Mar. 25, 1913.



WITNESSES

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LOCK.

1,057,330.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANCIS CONNAGHAN, a citizen of the United States, residing at Paola, in the county of Miami and State of Kansas, have invented new and useful Improvements in Locks, of which the following is a specification.

The present invention relates to combined locks and latches, and the primary object is to provide a simple but very practical mechanism, in which the sliding bolt can be locked in both its projected and retracted positions, and the latch also locked against retraction, irrespective of the position of the bolt.

The preferred embodiment of the present invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the lock, with one of the side walls of the casing removed. Fig. 2 is a sectional view on the line 2—2 of Fig. 1. Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed, the casing, designated 4, may be of the usual angular box formation, having one removable side wall 5. Within this casing, is located a spring-projected latch 6, carrying at its rear ends, oppositely arranged arms 8 that are provided with terminal oppositely offset lugs 9. A roll back 10, has oppositely extending fingers 11 that engage behind the lugs 9, so as to retract the latch upon the rotary movement of the knob in one direction, as will be readily understood. A spring 12 serves to normally maintain the latch in its projected relation. Below the said latch, is a sliding locking bolt 13 guided between suitable lugs 14, and having its rear end located above the key-hole 15. The said rear end is cut away, as shown at 16, to receive the key, and a pivoted tumbler 17 is provided with an offset projection 18 that engages behind a shoulder 19 to hold the lock in projected relation. This tumbler has a portion disposed across the cut-away part 16 of the lock, and is thus arranged in the path of movement of the key, so that it will be elevated to carry the lug 18 out of engagement with the shoulder when the key is turned to retract the bolt. A spring 20, engaged with the tumbler 17, urges the same to its operative position.

Slidably mounted transversely of the latch 6 and bolt 13 is a holding device, in the form of a reciprocatory bar 21 operating in guideways 22, and arranged behind the latch. The lower end of this holding bar has a tooth 23 arranged to engage in either of two recesses 24 formed in the upper edge of the bolt 13, the said tooth engaging in one of the recesses when the bolt is in projected relation and engaging in the other recess when the said bolt is retracted. The bar is furthermore provided on one side with another tooth 25 that is arranged to engage behind a shoulder 26 formed upon the upper side of the latch 6. The upper end of the holding bar has a pair of laterally projecting lugs 27, and between these lugs is engaged one arm 28 of an operating bell crank 29, the other arm 30 projecting from the casing and providing a finger piece, by which the device can be actuated. This bell crank 29 is journaled upon a pivot pin 31 located within the casing, and a portion of the said bell crank around the pivot is counterbored, as illustrated at 32, providing a socket with a bottom 33. A coiled friction spring 34 surrounds the pivot, and is located in the counterbore, one end of the spring bearing against the said bottom 33, the other end bearing against the removable wall 5. In this way, it will be evident that a friction means is provided for holding the operating device in either of its two positions, and consequently maintaining the holding bar 21 in either its operative or its inoperative relation.

The operation of the mechanism, it is thought, will be entirely clear by reference to Fig. 1. The latch and bolt can both be positively secured in projecting relation by first projecting said bolt and then moving the operating device to the position illustrated in full lines. The tooth 23 will then be engaged in the rear recess 24 of the bolt and behind the shoulder 26. If it is desired to secure the latch only in projecting relation, the bolt can be positively locked in its retracted position, as illustrated.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacri-

ficing any of the advantages of the invention.

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

1. In a lock of the character set forth, the combination with a casing, of a spring projected latch mounted therein and having a shoulder, a sliding bolt also mounted in
10 the casing and having spaced recesses, a reciprocatory holding device slidably mounted in the casing transversely of the bolt and latch and arranged to engage in either recess of the former accordingly as said bolt
15 is in projected or withdrawn position, said device having a tooth that engages behind the shoulder of the latch when the latter is projected, and actuating means for the holding device projecting from the casing.

2. In a lock of the character set forth, the combination with a casing, of a key-operated bolt slidably mounted therein and having spaced recesses in its upper edge, a
25 spring-projected latch slidably mounted in the casing above the bolt and having a

shoulder, a reciprocatory holding bar operating transversely of the latch and bolt, said bar having a lower terminal tooth arranged to engage in either recess of the bolt and having an upper tooth on one side that is
30 arranged to engage behind the shoulder of the latch, said bar furthermore having at its upper end spaced upstanding lugs, a pivot disposed at one side of the upper end of the bar, a bell crank journaled on the
35 pivot, one arm of the bell crank engaging between the lugs of the bar, the other arm projecting from the casing, said bell crank having a counterbore surrounding the pivot, and a coiled friction spring located in
40 the counterbore, one end of the spring bearing against the side of the casing.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANCIS CONNAGHAN.

Witnesses:

BERNARD C. SHERIDAN,
AGNES TAYLOR.

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