

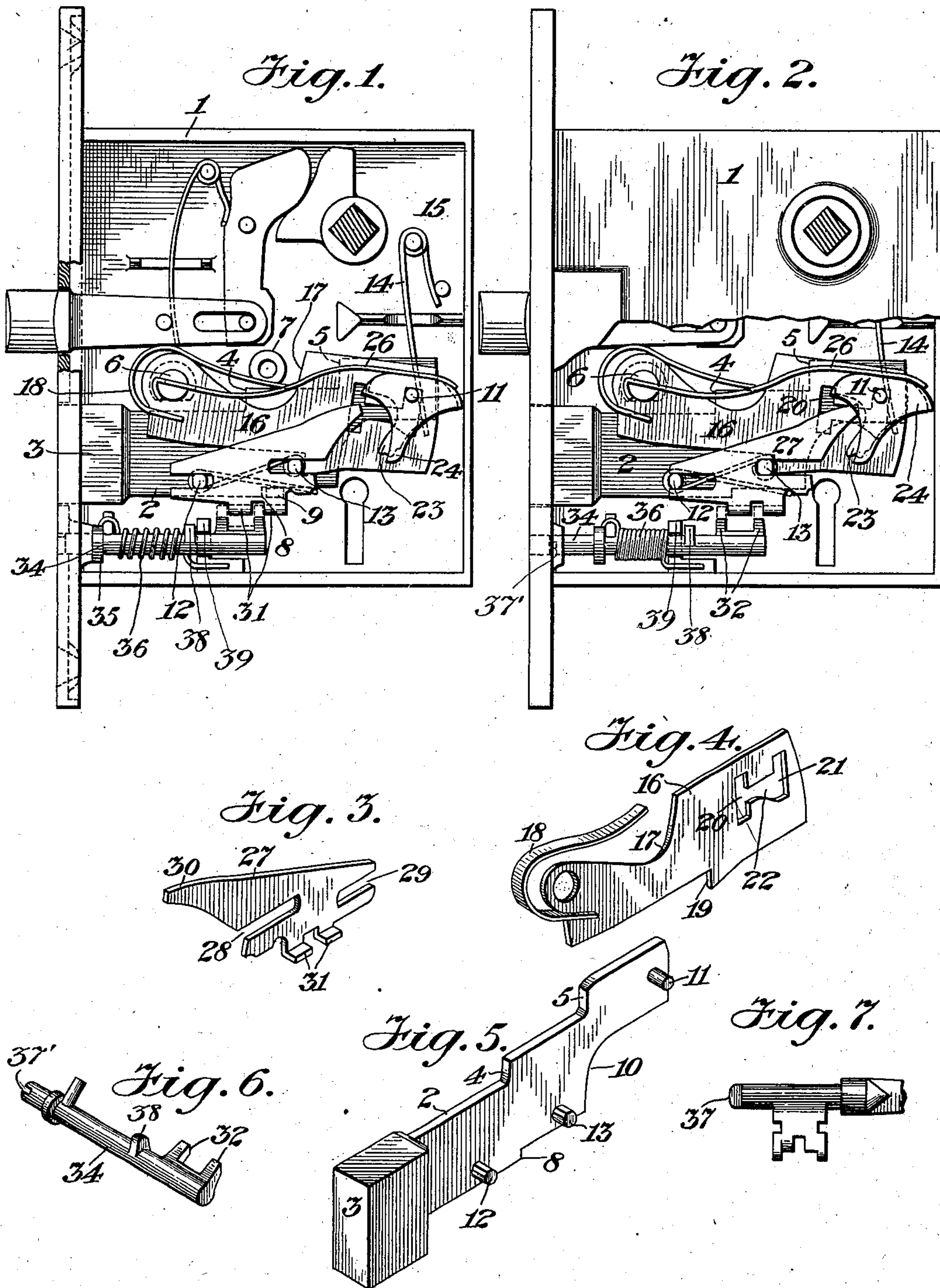
No. 721,470.

PATENTED FEB. 24, 1903.

W. SCHLUETER.
LOCK.

APPLICATION FILED SEPT. 17, 1902.

NO MODEL.



Witnesses
Chas. J. Clagett
For Secretary.

Inventor
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By his Attorney, J. R. Little

UNITED STATES PATENT OFFICE.

WILLIAM SCHLUETER, OF YONKERS, NEW YORK.

LOCK.

SPECIFICATION forming part of Letters Patent No. 721,470, dated February 24, 1903.

Application filed September 17, 1902. Serial No. 123,690. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHLUETER, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to locks; and its primary object is to provide novel and effective means for changing a lock from a safety-lock to an ordinary sliding-bolt lock, or vice versa.

The invention is especially designed as an attachment for or improvement upon the locks for which I received Letters Patent No. 672,181, dated April 16, 1901, and No. 676,448, dated June 18, 1901.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawings, which form part of this specification, and its novel features will be particularly defined, and set forth in the appended claims.

In the drawings, Figure 1 is an elevation of the lock, showing the position thereof when the bolt is unlocked. Fig. 2 is a similar view showing the locked position of the parts, and Fig. 3 is a detail perspective view of the means for operatively connecting the locking-bolt with the tumblers. Figs. 4 to 7, inclusive, show parts in detail.

Corresponding parts in all the figures are denoted by the same reference characters.

The reference-numeral 1 designates the lock-casing within which the mechanism is inclosed.

2 designates a slide carrying the bolt 3 at its outer end and recessed at its upper edge to form shoulders 4 and 5, adapted to abut against stops 6 and 7, respectively. The lower edge of the slide 2 is recessed to form a shoulder 8, which abuts against a stop 9, projecting from the casing. The lower edge of the inner end of the slide 2 is formed with a rounded recess 10 to afford room for the turning of the key, and a stud 11 projects from said inner end to serve as a pivotal support for the tumblers. The slide is also provided with studs 12 and 13 for the purpose hereinafter explained, and a spring 14, secured at one end to a stud 15 and bearing at its opposite end against the inner end of the slide, serves to project the bolt outward.

16 designates a plate having an opening to receive the stop-pin 6 and recessed at its upper edge, as at 17, to adapt it to have movement about the stop 7. A curved spring 18 is secured at one end to the plate 16 and is deflected and engaged under the stop 7. The lower edge of the plate 16 is recessed to form a shoulder 19, and adjacent to its inner end said plate is formed with parallel vertical slots 20 and 21, connected by a triangular slot 22 to permit the stud 11 of the slide 2 to pass therethrough, the engagement of said stud within the upper portions of the slots 20 and 21 serving to retain the bolt in either locked or unlocked position.

Upon the stud 11 are pivotally mounted two tumblers 23 and 24. The upper surfaces of the tumblers are rounded to receive the bearing contact of the free end of a spring 26, the opposite end of which is hooked and secured within a slot in the end of the stop 6.

To operatively connect the bolt-slide 2 with the tumblers, I employ a connecting-slide 27, formed at its ends with oppositely-extending slots 28 and 29 to receive the studs 12 and 13 and with an inwardly-projecting extension 30, adapted to engage below the adjacent arm of the notched tumbler 23. The lower edge of the connecting-slide 27 is formed with parallel flanged lugs 31, which depend over the lower edge of the bolt-slide and form a slot to be engaged by lugs 32, projecting from a rod 34 at the lower side of the casing and extending into an opening 35 in the front of the casing. An engaging lug 38 on the rod 34 engages a lug 39 when the bolt-slide 2 is operatively connected with the tumblers 23 and 24. The lug 39 is fixed on the case 1. A coil-spring 36 surrounds the rod 33, the ends of said spring bearing against a stop-pin on the rod and against the lug 39, respectively. The outer end of the rod 33 is formed with a slot similar to the slot of a screw-head to receive a tool or implement to turn the rod and move it longitudinally. For this purpose I preferably employ the key of the lock, forming a lug 37 on the end thereof to fit the slot in the coupling-rod.

In order to make the above-mentioned operative connection and convert the device into a safety-lock, the parts being priorly in the respective positions shown in Fig. 1, the

lug 37 of the key is inserted in the slot 37' of the rod 34, and the latter is first partially rotated clockwise, then pressed inwardly of the lock, and then partially rotated anticlockwise until the lug 38 engages the lug 39. A reversal of the movements mentioned converts the device from a safety-lock to an ordinary sliding-bolt lock. When arranged as a safety-lock, the bolt-slide 2 is fixed against movement by any key, and is thus rendered safe from locking except by means of a key specifically adapted to the requirements of the lock. By means of such a key the rod 34 must first be operated, as before mentioned, to permit the bolt 3 to be shot.

The tumblers 23 24 may be of any ordinary form, provided they be adapted to engage the extension 30.

This improvement is intended to be used on all kinds of locks, such as door-locks, trunk and drawer locks, &c.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a lock, the combination with a slide provided with a bolt, of a pivoted plate, tumblers pivotally secured upon bolt-slide, a connecting-slide movably supported upon the bolt-slide, and having an extension adapted to engage at least one of the tumblers, and means for moving said connecting-slide.

2. In a lock, the combination with a bolt-slide, of a pivoted plate, tumblers pivotally secured upon bolt-slide, a connecting-slide formed with guide-slots, and an extension adapted to engage below at least one of the

tumblers, and a device for engaging and moving said connecting-slide, comprising a spring-controlled rod adapted to be moved longitudinally.

3. In a lock, the combination with a bolt-slide, of a pivoted plate formed with parallel connected slots, tumblers pivotally secured upon bolt-slide, a longitudinally-slotted connecting-slide provided with an extension adapted to engage at least one of said tumblers, and a spring-controlled oscillating rod formed with means for engaging said connecting-slide.

4. In a lock, the combination with a bolt-slide, of a pivoted spring-controlled plate formed with parallel connected slots, tumblers pivotally secured upon bolt-slide, a longitudinally-slotted connecting-plate having an extension to engage at least one of said tumblers, and means for moving said connecting-plate.

5. In a lock, the combination with a bolt-slide, of a pivoted spring-controlled plate formed with parallel connected slots, tumblers pivotally secured upon bolt-slide, a connecting-plate having an extension to engage at least one of said tumblers, and a device for moving said connecting-plate.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

WM. SCHLUETER.

Witnesses:

F. O. MCCLEARY,
J. C. PYBAS.