

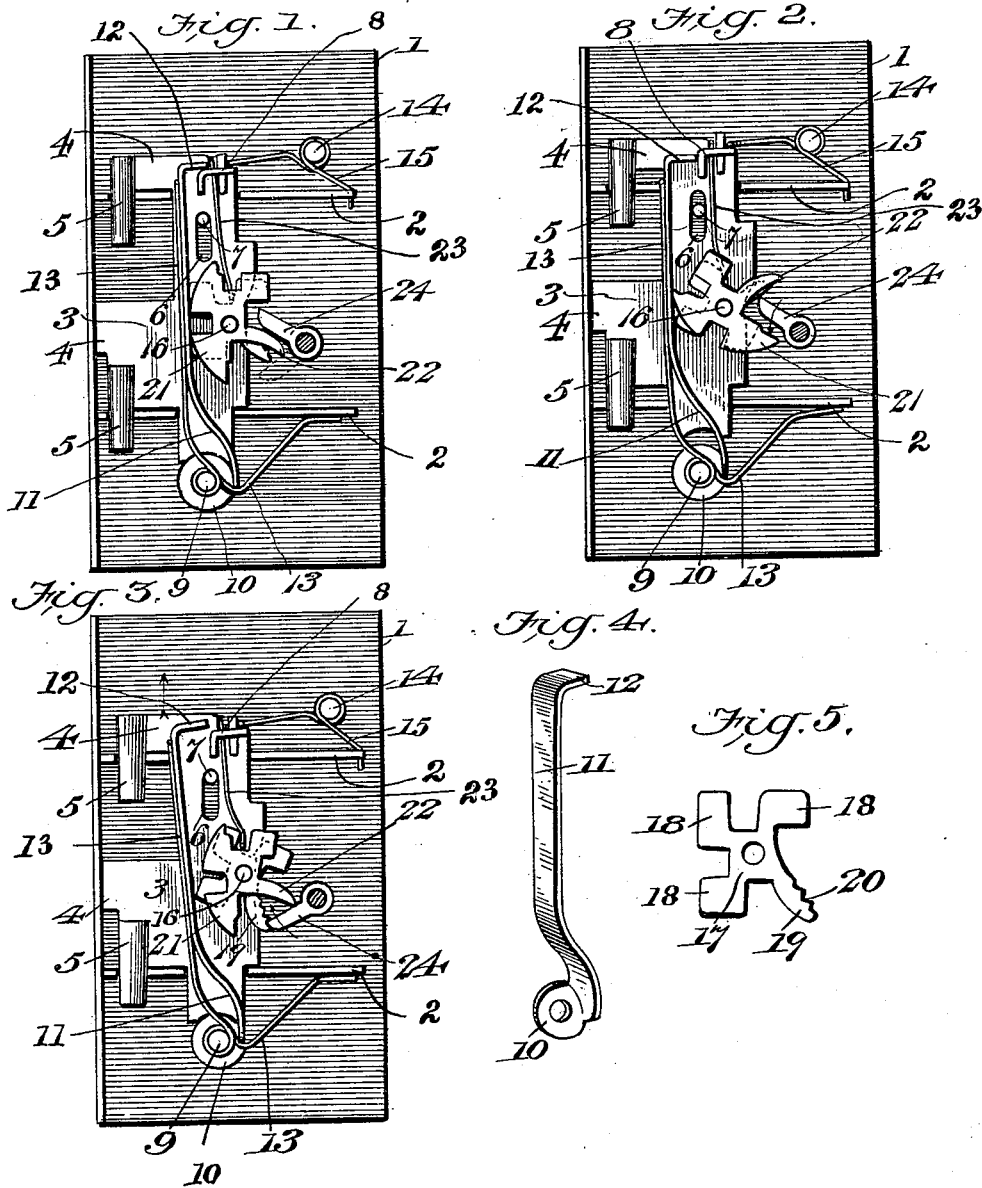
No. 676,448.

Patented June 18, 1901.

W. SCHLUETER.
LOCK.

(Application filed Feb. 2, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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LOCK.

SPECIFICATION forming part of Letters Patent No. 676,448, dated June 18, 1901.

Application filed February 2, 1901. Serial No. 45,764. (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 new and useful Improvements in Locks, of which the following is a specification.

This invention relates to new and useful improvements in locks; and it is more especially an improvement upon the lock shown and described in the application filed by me on September 8, 1900, Serial No. 29,395, and allowed September 29, 1900.

The primary object of this invention is to provide a lock having a pivoted tumbler which is arranged adjacent to a false or "blind" tumbler, which is adapted to prevent the operation of the device unless the key is properly manipulated.

A further object is to provide means of novel construction for locking the sliding bolt of the lock in either position to which it may be moved.

With these and other objects in view the invention consists in certain novel features of construction and combination of parts, which will be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is an elevation of the mechanism of the lock and showing the first and second positions of the key in solid and dotted lines, respectively. Fig. 2 is a similar view showing the key's third position. Fig. 3 shows the fourth position of the key and the mechanism ready to be slid into unlocked position. Fig. 4 is a detail view of the locking-strip, and Fig. 5 is a similar view of the tumbler.

Referring to the figures by numerals of reference, 1 is a plate having ribs 2 therein, which are cut away, serving as guides for the slotted bolt 3 of the device. This slide is provided with lateral extensions 4, at the end of each of which is formed a bolt or arm 5, these arms being arranged in alinement and parallel with the slide.

The slide 3 is slotted at 6 to receive a guide-pin 7, and an L-shaped flange 8 is arranged at one end of the slide 3 upon the face thereof. A stud 9 is arranged upon the plate 1 adjacent to that end of the slide which is

farthest removed from the flange 8, and pivotally mounted upon this stud is an ear 10, formed at one end of a hooked strip 11. The hook 12 of this strip is adapted to engage the flange 8 when the slide is locked, and the same is held normally in engagement therewith by means of a spring-strip 13, which is coiled about the stud 9 and bears at its ends upon one of the ribs 2 and upon the strips 11, respectively.

A stud 14 is arranged upon the plate 1 and adjacent to the flange 8, and coiled thereon is a spring 15, which bears at its ends upon a rib 2 and the end portion of the flange 8.

Extending from one face of the sliding bolt 3 is a stud 16, upon which is pivotally mounted a tumbler 17, having four arms extending therefrom, three of which, 18, are similar to each other, while the fourth, 19, comprises a substantially straight strip, within the inner edge of which are arranged a series of recesses or serrations 20. Two of the arms 18 normally contact with the pivoted strip 11, and when the tumbler is partly turned in either direction one of the arms will raise said strip. A second tumbler 21 is arranged upon the stud 16 and bears upon the tumbler 17. This tumbler is also provided with four arms, and one of them, 22, is substantially similar in form to but longer than the arm 19 of the tumbler 17, but is not provided with the recesses or serrations 20.

A spring-strip 23 is fitted at one end within the angular flange 8, and its opposite end lies between two of the arms of each of the tumblers, this strip serving to prevent the revolution of the tumblers and being also adapted to return the tumblers to their normal positions, which are shown in Fig. 1.

A key 24 of proper form is inserted into the lock, so as to rest in the position shown in full lines in Fig. 1. When the key is turned, it will force the arms 19 and 22 out of its path, swinging the tumblers upon their pivots, and as soon as the key reaches the position shown in dotted lines in Fig. 1 the tumblers will be moved back to their normal positions by the spring 23. The movement of the key is then reversed, causing the same to bear upon the two arms, as shown in Fig. 2, and this movement of the key continues until the notched arm 19, which is shorter than the

arm 22, escapes past the end of the key. As soon as this arm swings to its normal position the key is moved in the direction of the arrow shown in Fig. 2, the same then being in position between the two arms. As this movement is continued the key will engage each of the serrations or recesses 20 successively, and as soon as the last recess is reached the key is turned in the direction of the arrow, Fig. 3, causing the sliding bolt and its tumblers to move longitudinally, this movement being permitted in view of the fact that the strip 11 has been raised out of the path of the flange 8 by the partly-revolved tumbler 17. As soon as the slide is moved the desired distance the tumblers will escape the key and will return to their normal positions, and thereby promptly drop the hook 12 of the strip 11 in front of the flange 8 and lock the slide in opened or unlocked position. To lock or close the same, all that is necessary is to turn the key from right to left and it will lock itself.

This improvement is intended for all different kinds of locks which have a keyhole on one side only.

In the foregoing description I have embodied the preferred form of my invention; but I do not wish to be understood as limiting myself thereto, as I am aware that modifications may be made therein without departing from the principle or sacrificing any of the advantages thereof, and I therefore reserve to myself the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The combination with a plate; of a slide mounted thereon having bolts formed therewith, a tumbler pivotally mounted upon the slide and adapted to operate a catch, an arm

to said tumbler having recesses therein, and a second tumbler pivotally mounted upon and extending over the first-mentioned tumbler. 45

2. The combination with a plate; of a slide mounted thereon and having bolts formed therewith, a spring for controlling the movement of the slide, a hooked strip, means for holding said strip normally in engagement with the slide, whereby movement thereof is prevented, a tumbler pivoted upon the slide, arms thereto adapted to contact with the hooked strip and release the same from engagement with the slide, an arm to said tumbler having serrations in one edge thereof adapted to be engaged by a key, and a second tumbler pivotally mounted upon and adapted to extend over the first-mentioned tumbler. 60

3. The combination with a plate; of a slide mounted thereon and having bolts formed therewith, a spring for controlling the movement of the slide, a hooked strip, a spring for holding said strip normally in engagement with the slide, a stud upon the slide, a tumbler pivotally mounted upon the stud, arms thereto adapted to contact with the catch and swing the same out of engagement with the slide, an arm to the tumbler having recesses in one edge thereof adapted to be engaged by a second tumbler pivotally mounted upon the stud and extending over the first-mentioned tumbler, an arm to said second tumbler adjacent to and of greater length than the recessed arm, and means for returning the tumblers to their normal positions. 75

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

WILLIAM SCHLUETER.

Witnesses:

CHARLES G. BECHLE,
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