No. 888,828. PATENTED MAY 26, 1908.

V. A. LIPPERT.

COIN CONTROLLED LOCK.

APPLICATION FILED OCT. 30, 1907.

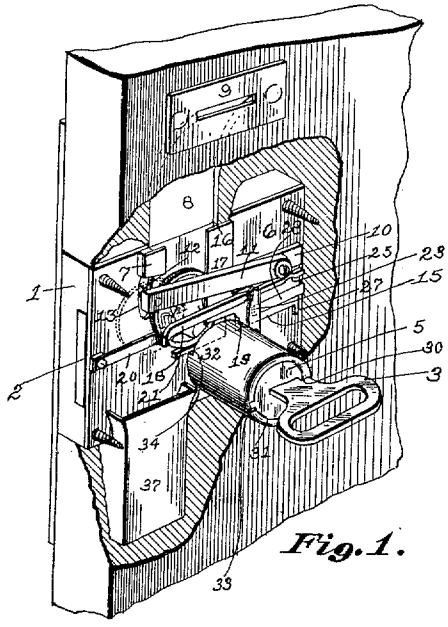


Fig. 1.

Fig. 2.

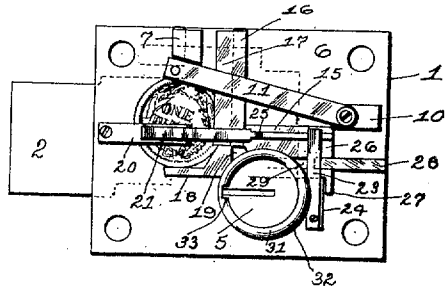
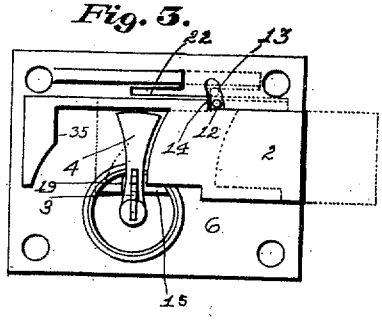


Fig. 3.



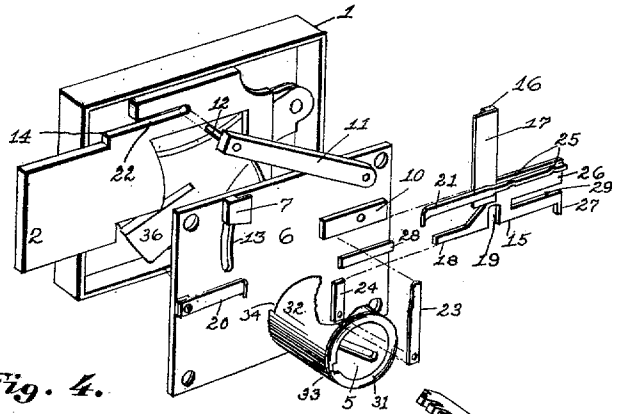


Fig. 4.

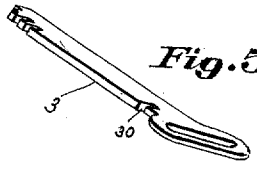


Fig. 5.

Witnesses

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COIN-CONTROLLED LOCK.

No. 888,828. Specification of Letters Patent. Patented May 26, 1908.

Application filed October 30, 1907. Serial No. 399,803.

To all whom it may concern:

Be it known that I, VICTOR A. LIPPERT, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Coin-Controlled Locks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the numerals and figures of reference marked thereon, in which—

Figure 1 is a view showing the lock connected to the door showing parts broken away and illustrating the lock open and a coin in position to actuate the bolt releasing mechanism by the movement of the key. Fig. 2 is a view showing the face of the lock illustrating the bolt moved to lock the door and the coin clamped. Fig. 3 is a back view of the front lock plate showing the bolt in position to unlock the door also showing the key in position to actuate the lock-bolt. Fig. 4 is a view showing the parts of the lock detached. Fig. 5 is a detached view of the key.

The present invention has relation to coin controlled locks and it consists in the novel parts hereinafter described and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the lock case, which is of the usual construction and in which lock case is slidably mounted the lock-bolt 2, which lock-bolt is adapted to be moved back and forth or reciprocated by the key 3 in the usual manner or in other words by the movement of the blade 4, which is extended from the spindle 5. These parts are of the usual construction and do not pertain to the present invention, except that they are necessarily present in order to carry out the proper movement of the sliding bolt or lock-bolt 2, by the coin controlled mechanism when said lock-bolt is released. To the plate 6 is attached the coin guide 7 from which guide leads the slot 8, which communicates with the slotted metal plate 9. The plate 6 is provided with the raised or flanged plate 10, to which raised plate 10 is pivotally attached the bar 11, the free end of which bar is provided with the pin 12, which pin is passed through the curved slot 13 formed in the plate 6. When the bar 11 is in the position illustrated in Fig. 1 the pin 12 will engage the shoulder 14, thereby preventing any end movement or extended movement of the lock-bolt 2, and no action of said lock-bolt can take place by the manipulation of the key 3. Let it be assumed that the coin is in the position illustrated in Fig. 1 and the key in the position shown in said figure. By turning the key the coin will be moved into the position illustrated in Fig. 2 and after the coin is moved in the position illustrated in Fig. 2 the bar 11 will be elevated or brought into the position illustrated in Fig. 2, thereby disengaging the pin 12 from the shoulder 14, which releases the lock-bolt 2.

For the purpose of bringing the coin from the position illustrated in Fig. 1 to the position illustrated in Fig. 2, the slide plate 15 is provided, to which slide plate is attached the coin push bar 16, said push bar coming in direct contact with the edge of the coin.

For the purpose of insuring the proper contact and assisting in holding the coin in proper position the plate 17 is provided, which plate comes over the outer face of the coin as best illustrated in Fig. 2.

For the purpose of holding the coin in the position shown in Fig. 2 during the time the door is locked or the lock-bolt thrown into the position illustrated in Fig. 2 the sliding plate 15 is provided with the bar 18, which bar comes under the coin as illustrated in Fig. 2. The bar 18 also serves to hold the coin against downward movement when dropped into the position illustrated in Fig. 1. The sliding plate 15 is provided with the notch 19 into which notch the stem of the key 3 is placed or passed when the key is brought into position to manipulate the lock-bolt and the coin controlling mechanism by which arrangement a reciprocating movement is imparted to the sliding plate 15 by the movement of the key 3.

For the purpose of assisting in holding the coin the plate 6 is provided with the spring tang 20, and when the coin is moved into the position illustrated in Fig. 2 the coin will come under said spring tang as illustrated and the finger 21 will be extended over the free end of said spring tang thereby assisting in holding the coin or in other words clamping the coin between the face of the lock-plate 6 and the inner face of the spring tang 20.

The operation of the lock is as follows: When a coin is placed in the position illus-

trated in Fig. 1 the key is manipulated in the usual manner to throw the lock-bolt 2 and when the lock-bolt 2 is moved the sliding plate 15 is also moved and the coin moved by means of the push bar 16, which movement of the coin causes the pin 12 to ride upon the periphery of the coin and elevate the bar 11, which disengages the pin 12 from the shoulder 14 and as the lock-bolt 2 is moved the pin 12 enters the slot 22. After the lock-bolt 2 has been thrown to its full length as illustrated in Fig. 2 the key 3 is removed and taken away by the person depositing the coin. When it is desired to open the door or unlock the lock proper the key is inserted in the usual manner and turned to bring the lock-bolt in the position illustrated in Fig. 2, at which time the coin drops by gravity.

For the purpose of preventing any accidental movement of the sliding plate 15 and for the purpose of frictionally holding said plate the spring bar 23 is provided, which spring bar is connected to the flange 24 or its equivalent and said spring bar adapted to engage the shallow notches 25 formed in the sliding plate 15 or more specifically in the right angle plate 26 which may be formed integral with the plate 15.

For the purpose of stopping the movement of the sliding plate 15 it is provided with the tang 27 which tang comes in contact with the flange 24 when said plate is moved in the position illustrated in Fig. 2.

For the purpose of holding the sliding plate in proper relative position the flanges 10 and 28 act as guides for the sliding plate 15. The flange 28 being located in the recess 29.

For the purpose of locking the key 3 so that it cannot be removed when the lock is opened the stem of the key is provided with the notch 30 into which notch the flange 31 formed upon the spindle housing 32 enters, but for the purpose of allowing the key to be removed by the person depositing the coin the flange 31 is provided with the notch 33, by which arrangement the key can be removed after the lock-bolt 2 has been thrown to lock the door proper. In describing the present invention I have considered the lock secured to a door but I do not desire to be confined to a door as it will be understood that it is immaterial as to what the lock is attached to.

For the purpose of providing room for the sliding plate 15 a portion of the inner end of the spindle housing 32 is cut away as illustrated at 34.

For the purpose of causing the blade 4 to move the lock bolt 2 so as to withdraw the lock bolt to release or open the lock said lock bolt is provided with the shoulder 35. These parts however are common and form no particular part of the present invention.

It will be understood that the ordinary tumblers 36 should be employed and are of the usual construction and are manipulated by the key in the usual manner. The tumblers form no specific part in the present invention and are illustrated simply to show the proper working of the lock, within itself without any specific reference to the coin controlled mechanism. When the lock is opened and the key locked to the housing 32 the coin will be free to drop into the pocket 37 or its equivalent, or the part 37 designated as a pocket may be extended to constitute a guide for the released coins, and the coins conveyed to any suitable receptacle such as used in coin controlled devices.

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

1. In a coin controlled lock, the combination of a lock casing, and a lock bolt located therein, a bar pivotally attached to a plate forming part of the lock casing, said pivoted bar provided with a pin, a shoulder formed upon the lock bolt adapted for engagement with the pin, a sliding plate provided with a coin push bar, said sliding plate provided with a coin retaining tang and fingers, a spring tang adapted to temporarily hold the coin and means for guiding the coin, substantially as and for the purpose specified.

2. In a coin controlled lock, a lock casing provided with coin guides and a lock bolt, a key and means for imparting reciprocating movement to the lock bolt by the key, a pivoted bar provided with a pin adapted for engagement with the coin and the lock bolt, a sliding plate adapted to be actuated by the key simultaneously with the lock-bolt, said sliding plate provided with means for moving the coin, and means for retaining the coin against downward movement when the lock is open, and means for clamping the coin when the lock is closed, substantially as and for the purpose specified.

3. In a coin controlled lock, the combination of a lock casing and a lock-bolt located therein, mechanism adapted to impart reciprocating movement to the lock-bolt, a key adapted to actuate the lock-bolt reciprocating mechanism, a spindle housing provided with a notched flange, said key provided with a notch adapted to receive the flange of the spindle housing, a pivoted bar provided with a pin, said pin adapted for engagement with the lock-bolt, a sliding plate provided with means for moving the coin in one direction, a spring bar adapted to clamp the coin when moved by the sliding plate, said sliding plate provided with a finger adapted to clamp the spring bar, substantially as and for the purpose specified.

4. In a coin controlled lock, the combination of a lock consisting of a casing and a lock-bolt mechanism adapted to impart reciprocating movement to the lock-bolt, a

coin guide a pivoted bar provided with a pin, a shoulder located upon the lock bolt, said shoulder adapted for engagement with the pin upon the pivoted bar, a sliding plate provided with a coin holding tang and a coin clamping finger, a coin push bar movable with the sliding plate, said sliding plate provided with notches and a spring bar adapted for engagement with the notches with the sliding plate and a key adapted to actuate the lock-bolt, substantially as and for the purpose specified.

5. In a coin controlled lock mechanism, a key a pivoted bar adapted to be actuated by the movement of a coin to release the lock bolt, means for holding the coin in its initial position and moved position, a lock spindle housing provided with a notched flange and a key provided with a notch adapted to engage the flange of the spindle housing, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

VICTOR A. LIPPERT.

Witnesses:
J. A. JEFFERS,
F. W. BOND.