

E. M. HARRISON.
COIN CONTROLLED LOCK.

(Application filed May 2, 1898.)

(No Model.)

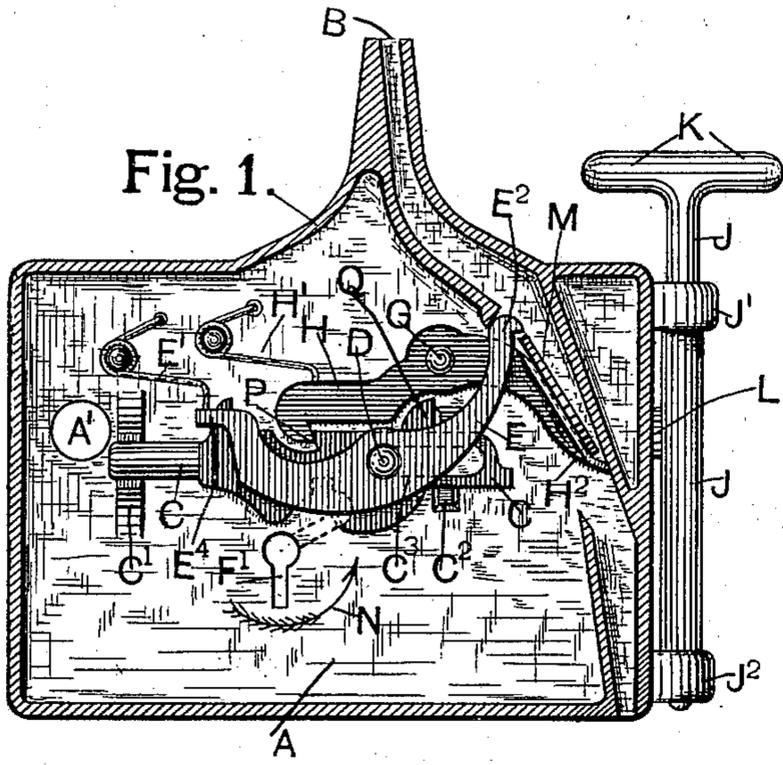


Fig. 1.

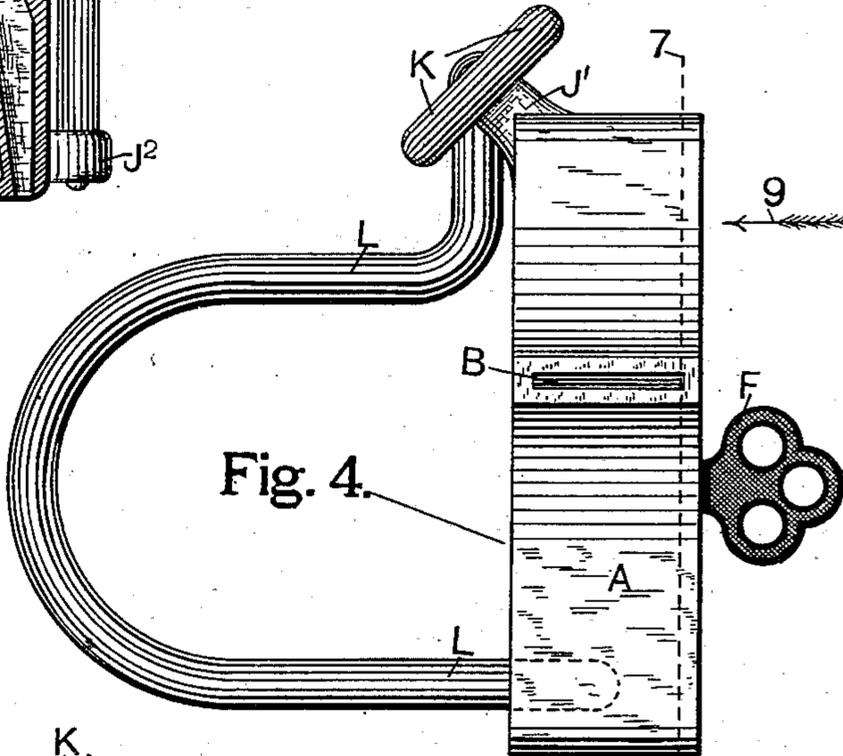


Fig. 4.



Fig. 6.

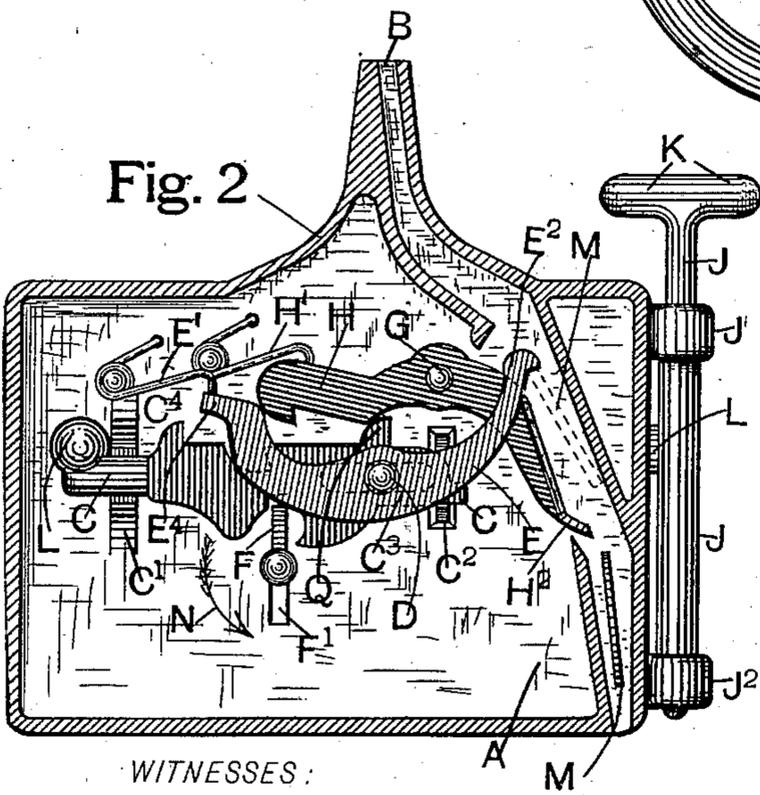
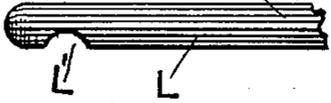


Fig. 2.

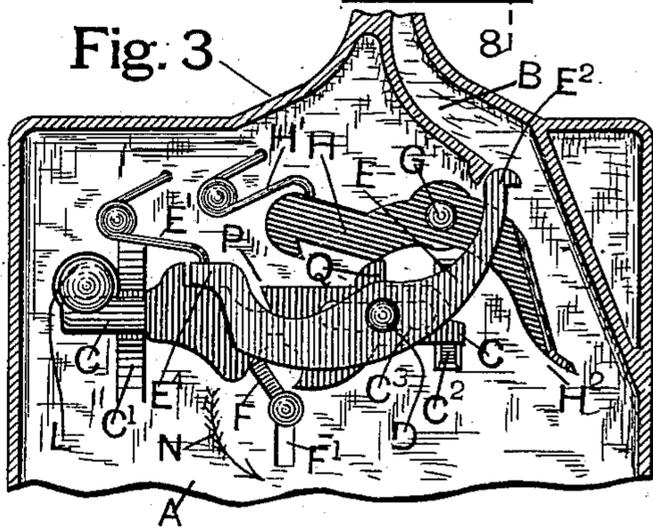


Fig. 3.

WITNESSES:

Edward Stone.
H. H. Hale

INVENTOR
Edward M. Harrison
BY
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ATTORNEY.

UNITED STATES PATENT OFFICE.

EDWARD M. HARRISON, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF
TO JOHN H. MCFARLAND, OF SAME PLACE.

COIN-CONTROLLED LOCK.

SPECIFICATION forming part of Letters Patent No. 651,854, dated June 19, 1900.

Application filed May 2, 1898. Serial No. 679,421. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. HARRISON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Coin-Controlled Lock, of which the following is a specification.

My invention relates to locks whose action is controlled by the introduction of ordinary coins or of thin disks of suitable material other than coins which may serve the same purpose. My object is to provide a simple combination of parts for this purpose having a high degree of efficiency and which may be produced at a low cost, thus adapting it to a wider range of use than is possible with the more costly kinds of locks.

My new lock is hereinafter fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the case on broken line 7 8, Fig. 4, and showing an elevation of the operative mechanism attached to the inside front cover of the case looking in the direction indicated by arrow 9, Fig. 4. The mechanism is shown in the open or unlocked position in Fig. 1. Fig. 2 is same section and elevation as Fig. 1, but with a key in the keyhole and turned around to a vertical position opposite to the position it had when first inserted and causing the operative parts of the lock to assume the position necessary to expel a coin or disk from the coin-slot, and thereby operate the key-latch. Fig. 3 is a vertical section of a portion of the lock-case as in Fig. 1 with the operative parts in elevation and in the locked position. Fig. 4 is a plan of the lock-case, showing a loop or hasp pivotally attached thereto. Fig. 5 is a plan of the key-latch, which is fully described hereinafter. Fig. 6 is a side elevation of the end of the hasp or loop, showing a notch in which the locking-bolt engages.

Similar letters indicate like parts throughout the several views.

The main body of case A in this instance is rectangular in form; but the top portion thereof is provided with a projection in which is located the coin-slot B, which is in communication with the interior of the case.

At C is a bolt which is mounted to slide

longitudinally in bearings at C' and C². Bolt C is provided with a slot, (indicated by the broken lines C³,) down through which is disposed a pin D, which is firmly secured to the side of the lock-case and projects outwardly beyond slide-bolt C, and its outer end serves as a pivotal center upon which is mounted the key-latch E, the latter being yieldingly held against the pressure of the key F by means of spring E'. Projecting from the inside of case A is a pin G, upon which is mounted a safety-detent H, which is yieldingly held in the several positions shown by the action of spring H'.

At J is a shaft pivotally mounted in the two lugs J' and J², which project from the case, the shaft terminating at the top end in a double handle K, which may be grasped to turn shaft J, and thereby insert the terminal end of hasp L into and through hole A' in the case, where the hasp may be engaged by sliding bolt C and held in the locked position, as shown in Figs. 2 and 3, or the terminal end of the hasp when disengaged from the locking-bolt C may be withdrawn by a movement of the handle K the reverse of that above described, when the hasp will stand in the open position.

In operation when the parts are in the unlocked position (shown in Fig. 1) if a coin is dropped into slot B it will fall to the position shown, resting against the side wall of the slot at one side and against the lower terminal end H² of detent H and under the hook at the end E² of key-latch E, the coin being prevented from further descent by the terminal end H² of detent H being in contact with the wall of the slot. If now key F is inserted in keyhole F, Fig. 1, and turned in the direction indicated by arrow N, it will first contact with the lower edge of key-latch E and lift the left-hand end portion E⁴ and cause the opposite end portion at the hook E² to descend and force coin M downwardly between the wall of the slot and the end H² of detent H, which action releases the detent from the notch P in bolt C and permits the bolt to slide outwardly or from right to left, Fig. 2, to the position shown. In the meantime a projection at Q on bolt C will engage with detent-lever H and turn it to the position shown, when the coin is released and may fall down

through the slot and out of the case into any proper receptacle underneath. By continuing to revolve the key the bolt C will finally be moved to its extreme outward position and into complete engagement with the notch L' at the end portion of hasp L, thus locking it in position. The continued turning of key F in the same direction from position shown in Fig. 2 to that shown in Fig. 3 will not only cause the locking-bolt C to move to its extreme outer position, but finally permit the arm or end portion E⁴ of key-latch E to descend by virtue of spring E' and a side projecting portion thereof, E⁵, Fig. 5, fall in behind the upward projection C⁴ of bolt C, and effectually prevent the bolt from sliding backwardly from the locked position shown in Fig. 3. In unlocking the key is inserted and turned in the opposite direction, (indicated by the arrows, (the key-latch being first lifted from behind projection C⁴, where the latch is held until the further turning of the key slides bolt C backwardly to the position shown in Fig. 1, when, with the key in the position indicated by the broken lines, the key-latch and the safety-detent will be free under the pressure of springs E' and H' to assume the positions shown in Fig. 1, when the hasp L may be turned around on its pivotal center to the open position. The usual notch in the locking-bolt C in which the key operates is so limited in width that the key cannot be removed after the locking-bolt is thrown back to the unlocked position, (shown in Fig. 1;) but, as before stated, after the insertion of a coin any movement of the key in the direction indicated by arrow N is transmitted first to lever E and through the coin to the end H² of the detent-arm, which is forced away from the wall of the slot, and thus releases the detent from the locking-bolt.

I claim as my invention—

1. In a coin-controlled lock, a case having a hasp mounted thereon, a hasp locking-bolt mounted within the case, a detent mounted within the case and adapted to engage the bolt and prevent it engaging the hasp, and a lever operated by a key adapted to operate the detent and release the locking-bolt through the medium of a coin, substantially as hereinbefore stated.

2. In a coin-controlled lock, a case having a hasp mounted thereon, a locking-bolt mounted within the case and adapted to engage the hasp, a detent mounted within the case and adapted to engage the bolt and prevent it en-

gaging the hasp, and also serving as a stop for a coin, a lever within the case and operated by a key and adapted to operate the detent through the medium of a coin within the case, whereby the locking-bolt is released and is adapted to be operated by the key into locking engagement with the hasp, substantially as hereinbefore shown and described.

3. The combination with a casing and grip-arm, of a bolt arranged to lock the grip-arm, coin-actuated mechanism and key-actuated mechanism having independent operative relation with the bolt, and means for operatively connecting said mechanisms through the medium of a coin, substantially as described.

4. The combination with a casing and grip-arm, of a bolt arranged to lock the grip-arm, coin-actuated mechanism and key-actuated mechanism having independent operative relation with the bolt, means for operatively connecting said mechanisms through the medium of a coin, and means for preventing the withdrawal of the key before the establishment of such operative connection, substantially as described.

5. The combination of a casing, a grip-arm adapted to engage and hold a bicycle, a bolt arranged in the casing and adapted to be moved into locking engagement with the grip-arm, a dog arranged to hold said bolt against movement and adapted to be moved out of engagement with the bolt by the turning of the key, and a coin-controlled dog also arranged to hold said bolt against movement and actuated by said key-actuated dog to release said bolt, substantially as set forth.

6. The combination of a casing having a coin-chute, a bolt arranged in the casing and adapted, when released, to be moved by a key, a dog arranged to hold the bolt against movement and having a part projecting into the coin-chute in position to be engaged by a coin inserted therein, and a part actuated by the movement of a key and adapted to engage the said coin and force the same in operative engagement with said dog to move the dog out of engagement with the bolt, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 29th day of April, 1898, in the presence of witnesses.

EDWARD M. HARRISON.

Witnesses:

OSCAR SNELL,
ELEANORE HARRISON.