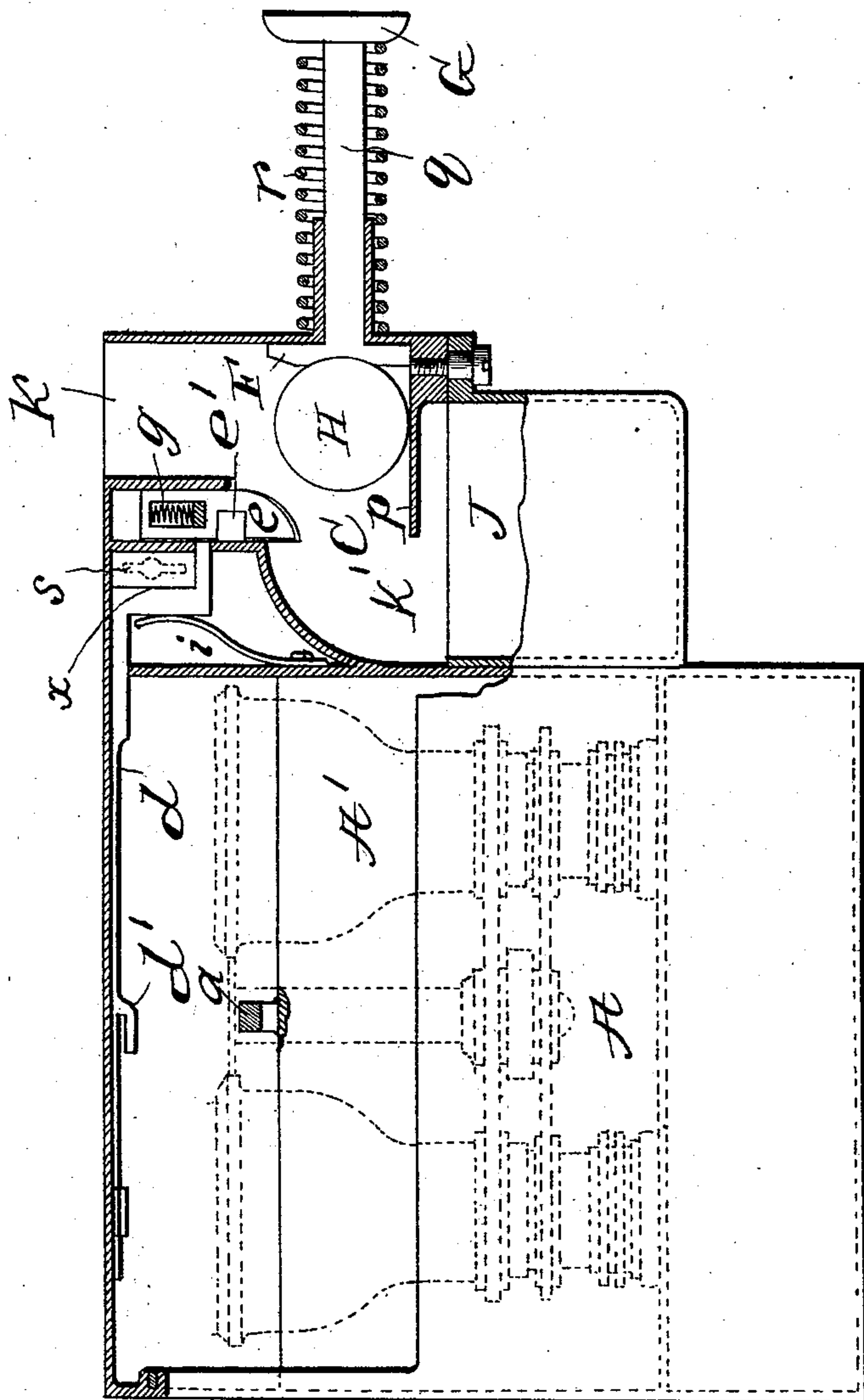


(No Model.)

J. W. PATTERSON.
COIN ACTUATED LOCK.

No. 531,328.

Patented Dec. 25, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

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COIN-ACTUATED LOCK.

SPECIFICATION forming part of Letters Patent No. 531,328, dated December 25, 1894.

Application filed September 28, 1889. Serial No. 325,421. (No model.)

To all whom it may concern:

Be it known that I, JAMES WILLIAM PATTERSON, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Coin-Actuated Locks, of which the following is a specification.

This invention relates to locks designed to be unlocked by the insertion of a coin. Locks of this character are applicable to boxes for the renting of opera glasses in theaters, to the doors of telephone cabinets, and to the doors of closets or apartments, and in fact to any device which it is desired to have opened by a person who has first to deposit a coin for the privilege of opening it.

My invention provides an improved construction of coin-actuated lock applicable to such apparatus.

The lock casing is formed with a coin conduit into which a coin may be inserted and within the casing a coin propeller is located arranged to be movable to thrust or carry a coin through said conduit. The coin propeller extends out of the casing to the exterior or is connected to some part upon the exterior which is adapted to be moved by hand, whereby motion is communicated manually to the coin propeller. Within the casing is a movable part projecting normally into the path traversed by the coin when moved by the propeller and adapted to be displaced by the thrust of the coin in its movement. The displacement of this movable part effects the unlocking of the lock either directly or indirectly, that is to say, the bolt or fastening provision of the lock is connected to the movable part so as to be moved thereby or as a consequence of the movement thereof. Hence, the insertion of a coin and the manual movement of the coin propeller results in the unlocking of the lock. Preferably, the lock when thus unlocked remains so until it is relocked or reset by an attendant who is provided with a special key for the purpose.

In the accompanying drawing, the figure illustrating my invention is a front elevation, the lock portion being partly in section.

The coin-actuated lock C is constructed with an inclosing case E in box form, which is fastened to the back or other convenient part of the theater chair. The tumbler *e* may be variously mounted, but in the construction

shown it is arranged to slide in vertical direction in guides or keepers *ff*, and is provided with a spring *g* tending to press downward. This spring may be constructed to work in recesses in the tumbler and to react against cross-rivets *h* which also constitute a stop to limit the movement of the tumbler. The bolt *d* is rendered normally retractile by being provided with spring *i* which tends to press the bolt back so as to unlock the opera-glass box, but is resisted by the ends of the bolt coming against the tumbler *e*, as stated. This tumbler is formed with a notch *e'*, into which the end of the bolt may enter when the tumbler is pressed upward. This pressing upward of the tumbler is accomplished by the insertion of a coin and by pushing the coin between the tumbler and the plate *p*.

A coin-slot *j* is formed in the top-plate of the box or case E, and from this slot a coin-chute or conduit *k* extends downward within the case being constructed by means of two parallel vertical plates, or in any other practicable manner. The space between these plates should be just sufficient to easily admit the prescribed coin. When the coin is inserted in the slot *j* it drops down to the bottom of the conduit *k*, where it rests on a plate *p*. A coin-propeller in the form of a plunger or pusher F is arranged to enter between the plates forming the slot, being mounted on a rod *q* which passes out at the right-hand side of the case and has fixed on its end a push-button G. After the coin has been inserted the person operating the lock presses in this push-button, thereby moving the coin-propeller F toward the left so that it pushes the coin (designated by the circle lettered H) before it and forces the coin through the space between the tumbler *e* and the plate *p*, thereby forcing the tumbler upward, and consequently unlocking the lock. The coin on being pushed through between the tumbler and plate *p* drops down within the conduit *k'* and falls through a slot or opening into the coin-receptacle J beneath the case E. This receptacle will be mounted and fastened in any suitable way so that it cannot be opened to take out the coins except by a cashier or money-collector who is provided with a special key. Any suitable lock or fastening may be

employed, the details of which it is not deemed necessary to illustrate as such key-actuated locks are well known. As soon as the operator releases the pressure upon the button G the button and the coin-propeller F are retracted by the action of a spring *r* applied to the stem *q*. When the lock has thus been unlocked the opera-glass B may be lifted out of the box A. When the user is through with the glasses he will replace them in the box.

Subsequently an attendant will examine each of the coin-actuated locks and will re-lock them. This he will do by inserting a special key, into a key-hole shown at *s*, and by turning the key will press against the bolt *d* at *t*, and thereby pressing the bolt outwardly against the tension of the spring *i* so that the hook or projection *d'* will enter the hasp *a* formed on the top of the lid A' of the box to hold the lid closed. Upon so doing the tumbler *e* will be released by the disengagement of the bolt *d* with the notch *e'* and the tumbler spring *g* will cause the tumbler to move downward, thus restoring the lock ready for the next operation.

It will be observed that in the use of my coin-actuated lock thus described the actual work of unlocking the lock is done by the power derived from the hand of the operator and transmitted through the push-button G, and is not at all dependent upon the weight or momentum of the coin which is inserted into the lock. This form of lock is hence well adapted for use with coins of light weight such as silver dimes, for example, the weight of which could not be relied upon to do the work of unlocking the lock. The insertion of too large a coin is prevented by the coin-slot *j* being made barely large enough to admit the prescribed coin. If too small a coin be inserted it will pass through between the tumbler *e* and plate *p* without displacing the tumbler sufficiently to bring its notch into register with the end of the bolt.

The sliding-bolt *d* is arranged to work across the top of the box or receptacle A being formed with a hook or projection *d'* adapted

to engage a hasp *a* formed on the top of the lid A' of the box to hold this lid closed. This lid is shown partly dropped down in the drawing in order to more clearly show the construction and the lock is shown in the locked position. The right-hand end of the bolt is pressed by a leaf-spring *i* against the tumbler *e* and when the latter is pressed back by a coin so as to bring its notch *e'* into coincidence with the end of the bolt, the latter is thrust by the spring *i* into this notch and its fastening projection *g'* is displaced out of the hasp *a* thereby releasing the door.

My invention may be variously modified in matters of detail without departing from those essential features which will be expressed in the claims.

I claim as my invention the following-defined novel features or combinations, substantially as hereinbefore set forth, namely:

1. In a coin actuated lock the combination with a casing formed with a coin conduit, of the movable coin propeller, the sliding tumbler provided with a recess, and the sliding locking bolt adapted to directly engage said tumbler.

2. In a coin actuated lock the combination with a casing provided with a coin conduit, a plate extending partially across the coin conduit, a coin propeller, a sliding tumbler provided with a recess, and the sliding locking bolt adapted to directly engage said tumbler.

3. In a coin actuated lock the combination with a casing provided with a coin conduit, a plate extending partially across said conduit, a coin propeller, a sliding tumbler provided with a recess, the sliding locking bolt adapted to engage said tumbler and a spring bearing against the sliding bolt.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES WILLIAM PATTERSON.

Witnesses:

GEORGE W. FRASER,
CHARLES K. FRASER.