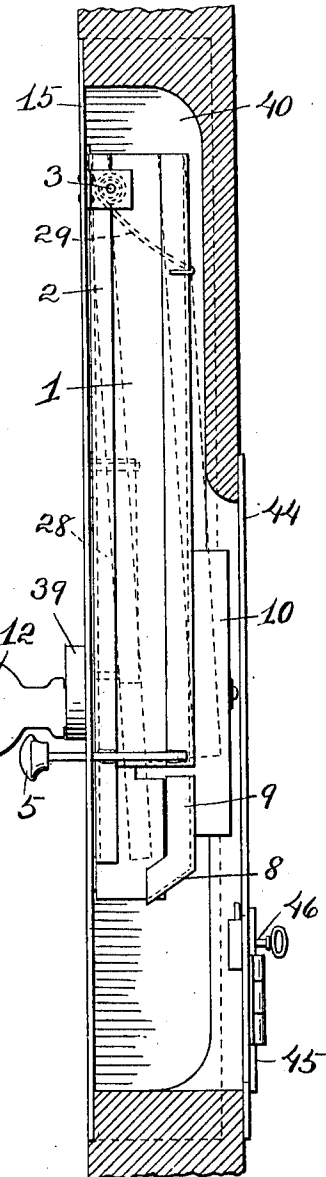
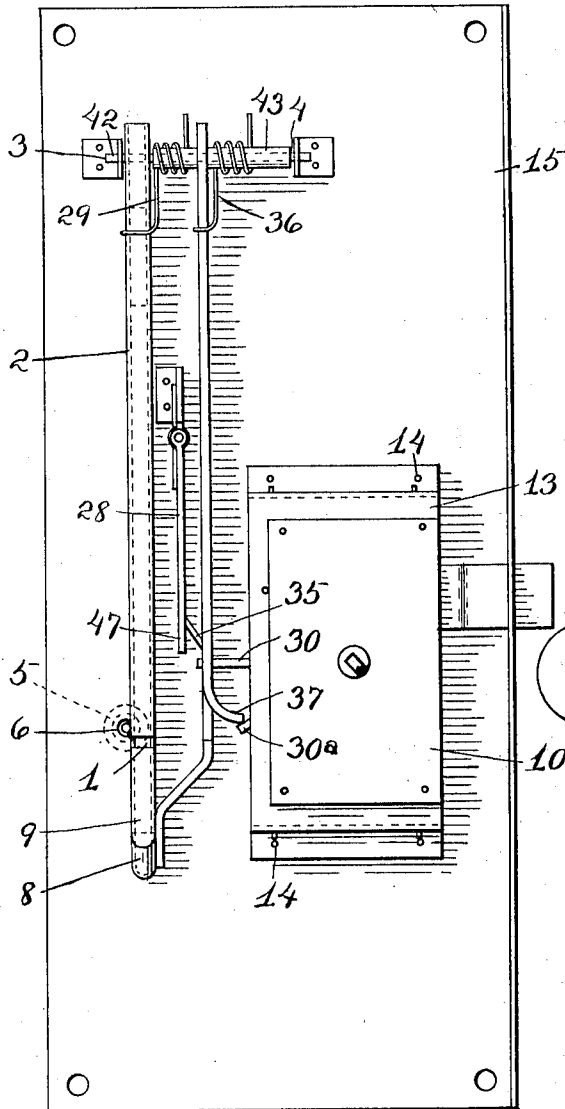


1,048,263.

4 SHEETS—SHEET 1.

Fig. 2.



Stuart Hilder.
Frances W. Anderson.

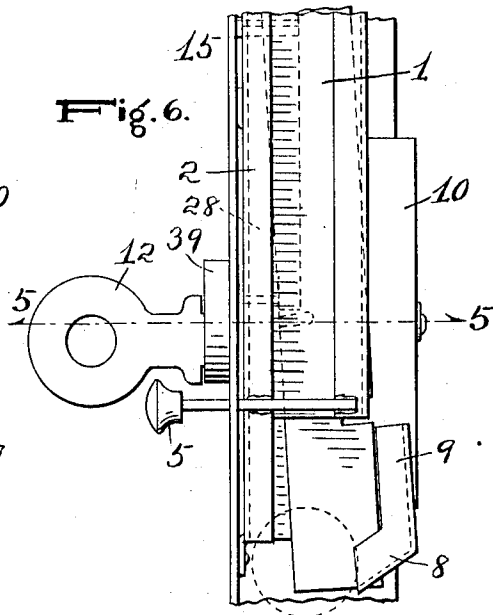
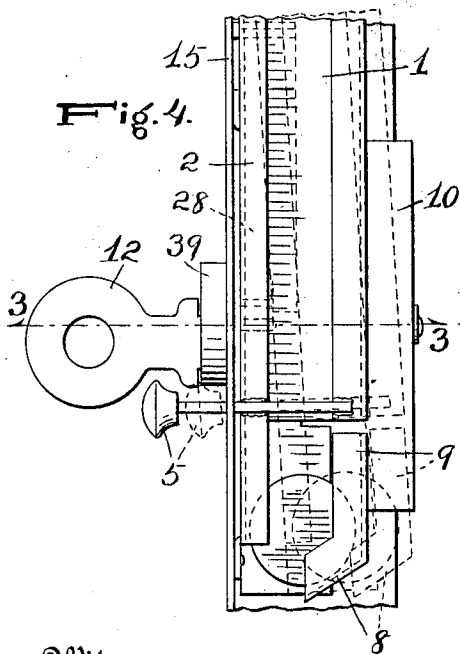
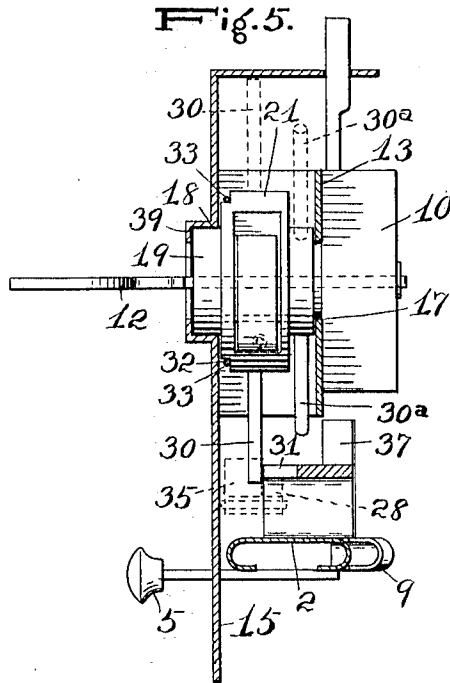
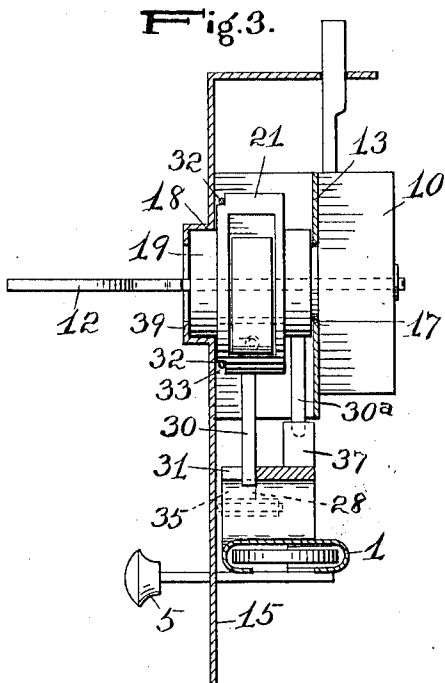
Carl J. Zurbel
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C. J. ZIRBEL.
 COIN CONTROLLED MECHANISM.
 APPLICATION FILED MAR. 25, 1912.

1,048,263.

Patented Dec. 24, 1912.

4 SHEETS—SHEET 2.



Witnesses
 Stuart Hilder.
 Francis W. Anderson

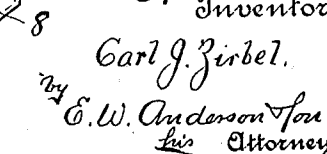
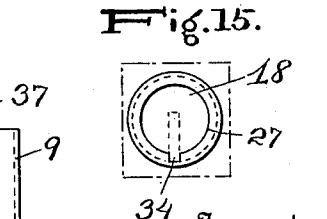
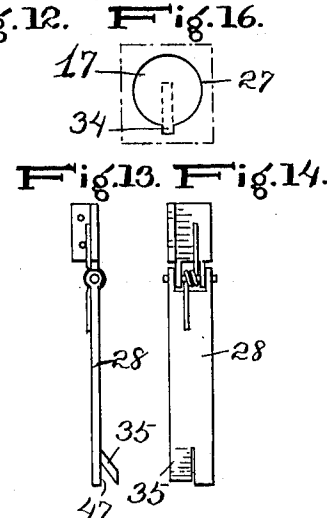
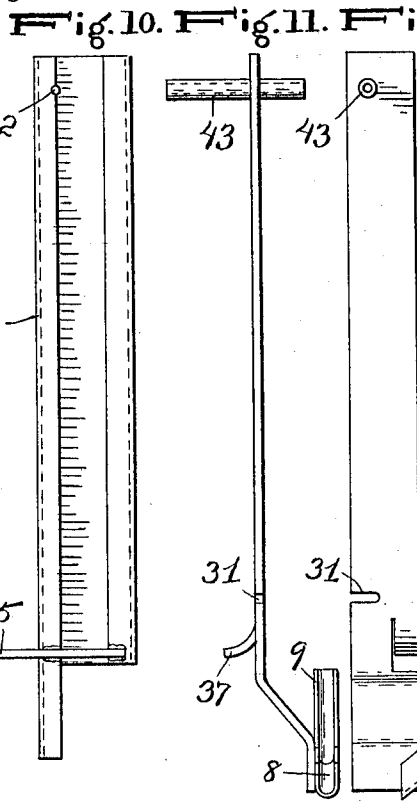
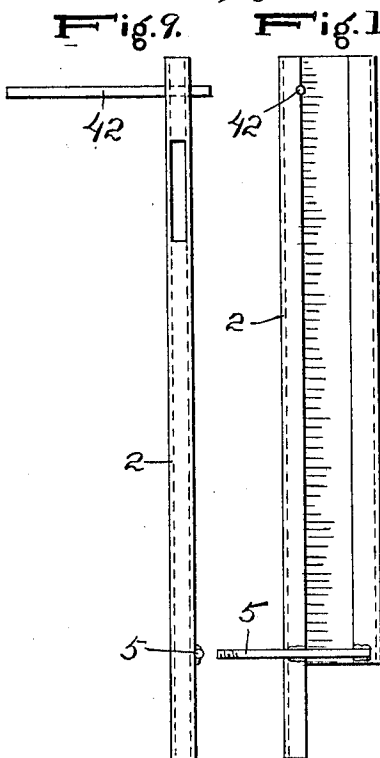
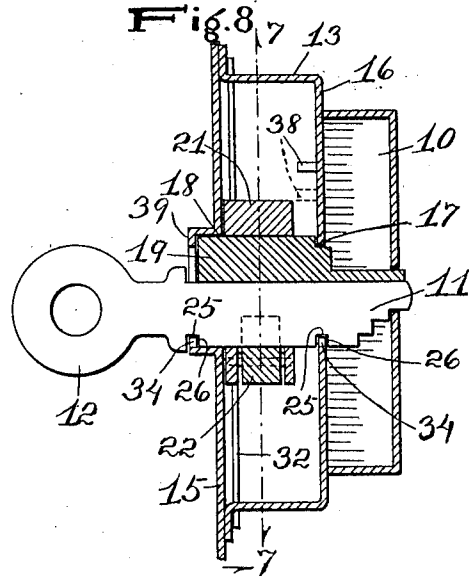
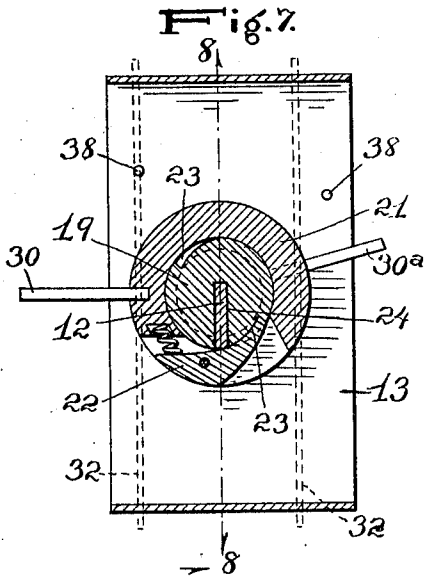
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C. J. ZIRBEL.
 COIN CONTROLLED MECHANISM.
 APPLICATION FILED MAR. 25, 1912.

1,048,263.

Patented Dec. 24, 1912.

4 SHEETS—SHEET 3.



Witnesses
 Stuart Hilder.
 Francis M. Anderson.

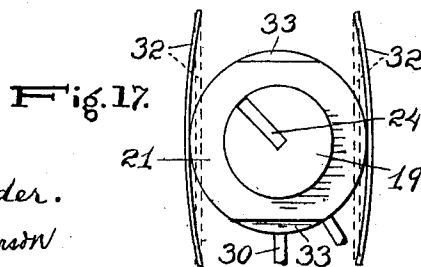
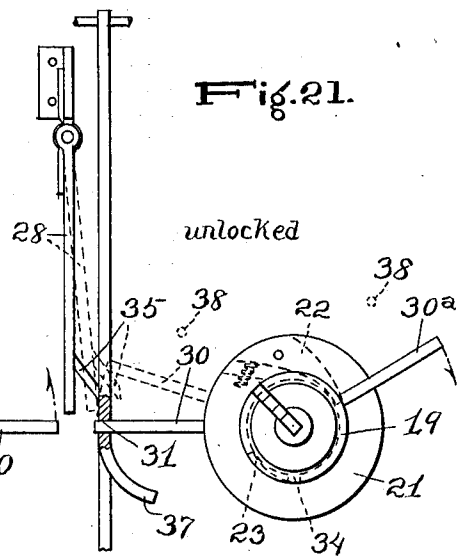
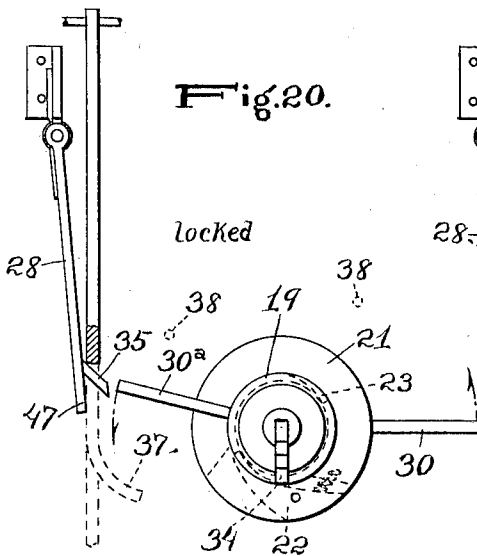
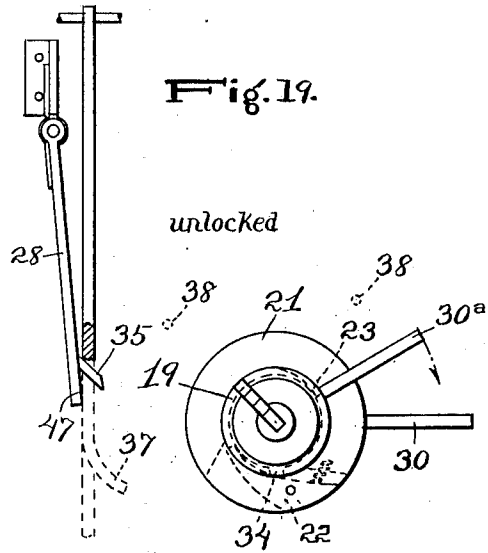
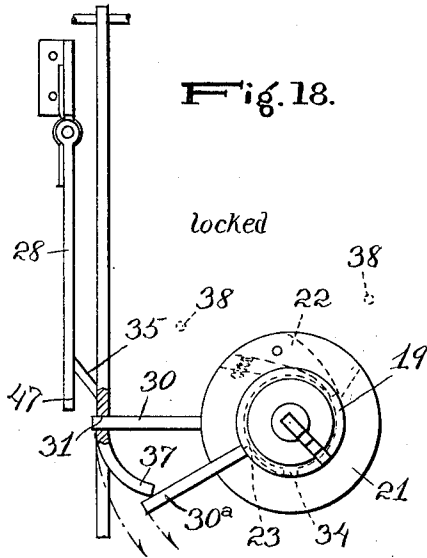
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C. J. ZIRBEL.
 COIN CONTROLLED MECHANISM.
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1,048,263.

Patented Dec. 24, 1912.

4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

CARL J. ZIRBEL, OF MONTEZUMA, IOWA.

COIN-CONTROLLED MECHANISM.

1,048,263.

Specification of Letters Patent.

Patented Dec. 24, 1912.

Application filed March 25, 1912. Serial No. 686,037.

To all whom it may concern:

Be it known that I, CARL J. ZIRBEL, a citizen of the United States, resident of Montezuma, in the county of Poweshiek and State of Iowa, have made a certain new and useful Invention in Coin-Controlled Mechanism; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a rear face view of the invention. Fig. 2 is a side view of the invention with the door or drawer broken away. Fig. 3 is a section on the line 3—3, Fig. 4. Fig. 4 is a fragmentary side view of the invention, with the chute sections shown as in inward moved position in dotted lines. Fig. 5 is a section on the line 5—5, Fig. 6. Fig. 6 is a fragmentary side view of the invention, with the lower chute section in inward moved position, and the coin in dotted lines. Fig. 7 is a section on the line 7—7, Fig. 8. Fig. 8 is a section on the line 8—8, Fig. 7, both of these sections being taken through the casing and through the rotary cylinders. Figs. 9 and 10 are detail front face, and side views of the upper chute section. Figs. 11 and 12 are similar views of the lower chute section. Fig. 13 and 14 are detail rear and side views of the spring catch for the lower chute section. Figs. 15 and 16 are detail views of the alined openings in the inner and outer plates. Fig. 17 is a detail front view of the cylinders, illustrating the action of the spring wires upon the outer cylinder. Figs. 18, 19, 20 and 21 are rear views of the cylinders and the parts adjacent thereto and coöperating therewith, partly diagrammatic, illustrating the positions taken by the parts at different stages in the cycle of operation.

The invention has relation to coin-operated mechanism designed for use with a lock of a door or drawer of a cabinet or other inclosure for hats, valises, parcels, umbrellas and the like, having for its object to prevent

the unlocking of the door or drawer until the coin is deposited, and to do away with the necessity of an attendant.

Other objects and advantages will hereinafter appear.

The invention consists in the novel construction and combinations of parts as hereinafter set forth.

In the accompanying drawings illustrating the invention, the numeral 1, designates a sectional coin chute, the upper member 2 of which is pivoted at one end at 3, to swing preferably in a vertical plane, the lower member of the chute being also pivoted at one end at 4 to swing in a similar or parallel plane. The upper chute member has a push button or projection 5, extending outward through a slot 6 of the carrier, and when the coin is deposited and falls to the bottom of the chute it will rest upon a laterally or outwardly projecting inclined portion 8 of the lower chute member 9 and form an operative connection between the members, so that when the push button is pressed inward, both members will move inward together into the position shown in dotted lines in Fig. 4, of the drawings. The upper chute section is always capable of moving inward but unless the coin lies between the members, the lower section or member will remain stationary.

The lock for the door or drawer may be of any suitable character that requires but about a half turn of the key to throw the bolt thereof in either direction to lock or unlock. This lock is indicated at 10, and is located in position to receive the end portion 11 of the key 12 in the ordinary manner.

13 indicates a casing, fastened to the door or drawer at 14, and having outer and inner plates 15 and 16, provided with alined perforations 17 and 18, within which a rotary block or inner cylinder 19 has bearings at its end portions. Mounted upon the inner cylinder to turn thereupon is an outer block or cylinder 21, a connection being provided between the two cylinders to cause them to turn together in one direction but to allow movement of the inner cylinder independently in the other direction, said connection

consisting preferably of a spring acting pawl 22, carried by the outer cylinder and engaging either of diametrically opposite teeth or notches 23 of the inner cylinder.

5 The key is normally in engagement with the lock and with a radial longitudinal notch or slot 24 of the inner cylinder, said key having a notch 25, the shoulder 26 of which is in engagement with the marginal edge
10 portion 27 of the perforation of one of the casing plates to prevent normally a withdrawal of the key.

The door or drawer being locked, the coin is inserted in the chute, the push button
15 pressed inward, and both chute members moved inward together, a means being provided to retain the lower chute member in inward moved position, consisting preferably of a spring acting catch 28, which
20 moves in front of said lower member. The push button being released the upper chute member moves back to normal position, preferably in a positive manner by means of a spring 29.

25 A means is provided to normally prevent rotary movement of the outer cylinder or block upon the inner cylinder in either direction, said means consisting preferably of a radial pin 30 of the outer cylinder having
30 engagement with an open-end slot 31 of the lower chute member, and when this lower chute member is moved inward as stated, the pin 30 will be released from said slot and the outer cylinder will be free to turn
35 upon the inner cylinder.

The parts being normally in the positions shown diagrammatically in Fig. 18 of the drawings, and the pin 30 being released, the key is turned one half way around to un-
40 lock in the direction of the arrow Fig. 18 to turn both the inner and the outer cylinders together to unlocked position, shown in Fig. 19. The door or drawer is now opened, the hat or other article inserted therein, the
45 door or drawer closed, and the key turned a little more than half way around in the reverse direction to lock again, the inner cylinder moving back with the key, but the outer cylinder remaining stationary, a means
50 being provided to hold the outer cylinder stationary in this position, consisting preferably of spring wires 32, engaging transverse grooves 33 of the outer cylinder, said wires yielding easily to allow the outer cylin-
55 der to turn when positively acted upon. The key is now in position with the shoulder 26 of its notch in alinement with a notch 34 of the marginal edge of the casing plate perforation and is moved outward endwise
60 and carried away by the user. When the user returns, the key is inserted in position again, and turned in the direction of the arrow, Fig. 20 a little more than half way around to unlock the door or drawer again,

the radial pin 30 moving with the inner cyl- 65
inder and taking a bearing against a lateral cam extension 35 of the hinged catch to press said catch back against the tension of its spring, as shown in dotted lines, Fig. 21 until the lower chute section is released, 70
said lower section or member moving back to normal position preferably by means of a spring 36, with the slot of said member in engagement with the radial pin to prevent movement of the outer cylinder in 75
either direction. In this last movement of the parts to unlock, both the inner and the outer cylinders move together. A final movement of the inner cylinder in the direction of the arrow, Fig. 21, completes the 80
cycle and locks the door or drawer again, a means being provided to prevent turning of the key in one direction to allow withdrawal thereof, consisting preferably of an outward projecting stop lug or extension 37 85
of the lower chute member, with which a radial pin 30^a of the inner cylinder has engagement at the end of this movement which is a half turn. The pawl and toothed con- 90
nection between the inner and outer cylinders will prevent turning of the key in the opposite direction at the end of the cycle of movements, which is the beginning of the next cycle. A means is provided to prevent 95
movement of the key too far in either direction, consisting preferably of stop pins 38, having engagement with the pin 30^a of the inner cylinder.

It is preferred to provide the outer plate 15 of the casing, with a boss projection 39, 100
having a cylindrical inner surface coincident with the perforation 17 before referred to, and to provide the key with two notches 25, and two bearing shoulders 26, in engagement with the marginal edge portions 27 of 105
the perforations of both plates 15 and 16. This arrangement will furnish duplicate means for normally preventing a withdrawal of the key, and the outer plate is provided also with a notch 34, in alinement with the 110
notch 34 of the inner plate, to allow the key to be withdrawn and inserted in position within the device at the proper times, the outer notch serving also as an indication of the proper positions of the parts for inser- 115
tion and withdrawal of the key.

It is desirable to locate the device within a recess 40, of the door or drawer, with the outer plate 15 closing the recess at the outside, and with both chute members pivoted 120
upon telescoping rods or shafts 42 and 43, one of which 43, is hollow, both shafts being carried by said outer plate and the hollow shaft serving as a carrier for the return springs for the two members. An inner 125
plate 44 closes the recess at the inside, and is provided with a door 45, having a lock and key 46 to provide for the removal of the

coins from time to time. These coins drop from the lower inclined portion of the lower chute member when the push button is released, to the bottom of said recess. The lateral extension 35 of the hinged catch is preferably the part of said catch that moves in front of the lower chute member to retain said member in inward moved position. This catch is prevented from moving too far to one side when it engages the lower chute member, by its lower end 47, which has contact with said member. The spring wires 32 by engagement with the corners of the grooves or recesses of the outer cylinder will act to snap said cylinder home in case of an incomplete turn or movement thereof, in this way acting to complete the movement.

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

1. In key-operated coin-controlled mechanism, an inner rotary block, having a key-hole slot, an outer rotary block, means of connection between the blocks to cause them to rotate together when the inner block is turned in one direction by the key and to allow independent movement of the inner block in the opposite direction, a radial pin upon the outer block, two concentrically pivoted members adapted to receive a coin therebetween, said coin forming an operative connection between the members whereby when one member is moved the coin and the other member are moved therewith, one of said members having engagement with the pin to hold the key from being turned and release from said pin to enable the key to be turned upon movement of both members together.

2. In key-operated coin-controlled mechanism, means for holding the key from being turned, two concentrically pivoted members adapted to receive a coin therebetween, said coin forming an operative connection between the members whereby when one member is moved the coin and the other member are moved therewith to release said means for holding the key from being turned, a circular flange having engagement with a shoulder of the key to normally hold the key from being withdrawn and to hold the key from being withdrawn when the key is turned in one direction to unlock, said flange having a notch to release the key when turned in the opposite direction to lock again, and said flange having engagement with the key again when the key is turned in the first direction for the second time to unlock and back in the opposite direction for the second time to lock.

3. In key-operated coin-controlled mechanism, means for holding the key from being turned, two concentrically pivoted members adapted to receive a coin therebetween, said

coin forming an operative connection between the members whereby when one member is moved the coin and the other member are moved therewith to release said means for holding the key from being turned, a circular flange having engagement with a shoulder of the key to normally hold the key from being withdrawn and to hold the key from being withdrawn when the key is turned in one direction to unlock, said flange having a notch to release the key when the key is turned in the opposite direction to lock again, and said flange having engagement with the key again when the key is turned in the first direction for the second time to unlock and back in the opposite direction for the second time to lock, and yieldable means to hold said outer block in position as rotated in one direction.

4. In key-operated coin-controlled mechanism, an inner rotary block having a key hole slot, an outer rotary block, means of connection between the blocks to cause them to rotate together in one direction and to allow independent movement of the inner block in the opposite direction, a radial pin upon the outer block, two concentrically pivoted members adapted to receive a coin therebetween, said coin forming an operative connection between the members, one of said members having engagement with the pin to hold the key from being turned and release from said pin to enable the key to be turned upon movement of both members together, a circular flange having engagement with a shoulder of the key to normally hold the key from being withdrawn and to hold the key from being withdrawn when the key is turned in one direction to unlock, said flange having a notch to release the key when it is turned in the opposite direction to lock again, and said flange having engagement with the key again when it is turned in the first direction for the second time to unlock and back in the opposite direction for the second time to lock.

5. In key-operated coin-controlled mechanism, means for holding the key from being turned, two concentrically pivoted members adapted to receive a coin therebetween said coin forming an operative connection between the members whereby when one member is moved the coin and the other member are moved therewith to release the means for holding the key from being turned, a circular flange having engagement with a shoulder of the key to normally hold the key from being withdrawn and to hold the key from being withdrawn when it is turned in one direction to unlock, said flange having a notch to release the key when it is turned in the opposite direction to lock again and said flange having engagement with the key again when it is turned in the first direction

for the second time to unlock and back in
the opposite direction for the second time to
lock, yieldable means to hold said outer
block in position as rotated in one direction,
5 and means to prevent movement of the key
and of the inner block too far in either di-
rection.

In testimony whereof I affix my signa-
ture, in presence of two witnesses.

CARL J. ZIRBEL.

Witnesses:

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HENRY PUMPHREY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
