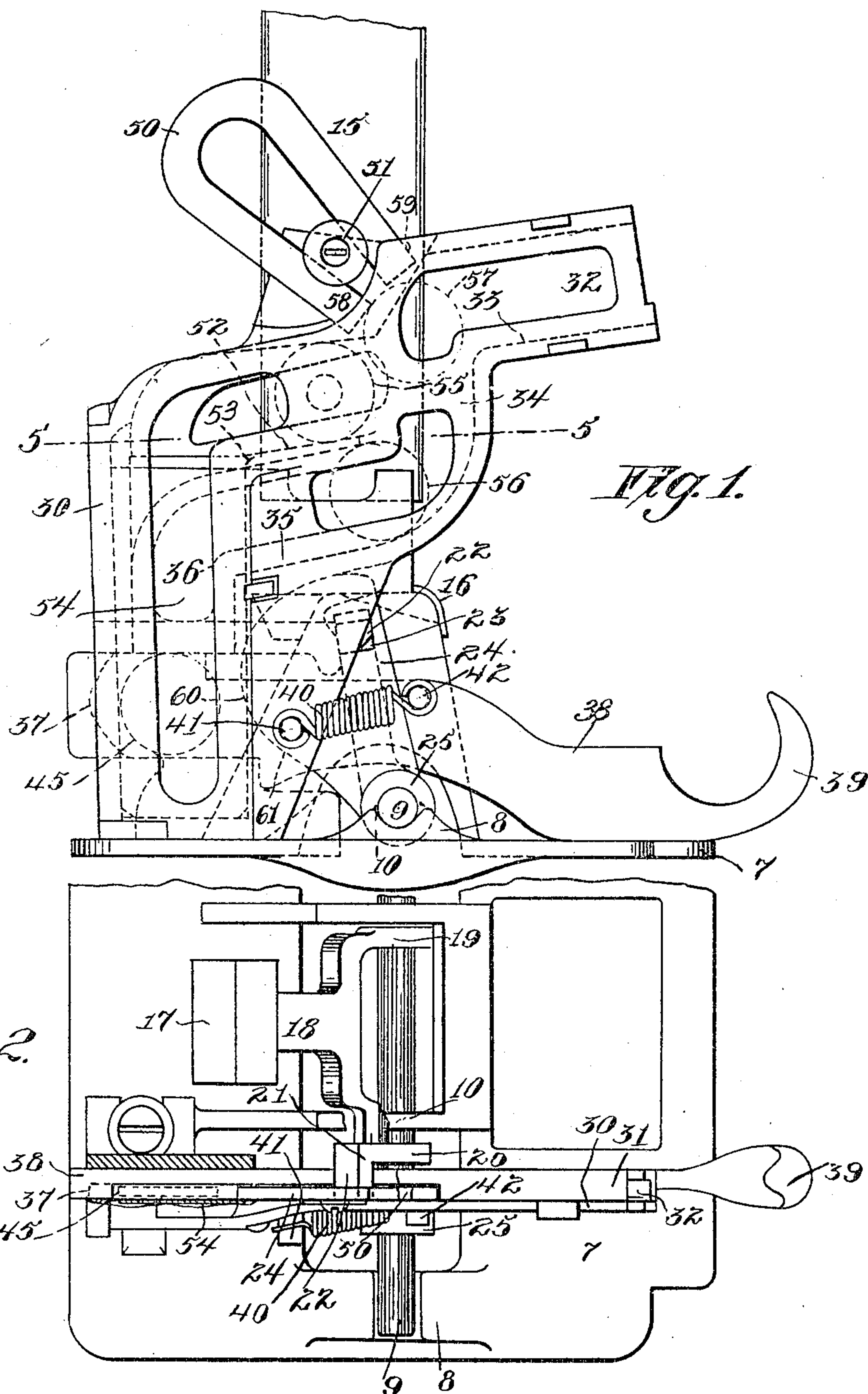


No. 812,331.

PATENTED FEB. 13, 1906.

F. J. DOLE.
COIN CONTROLLED APPARATUS.
APPLICATION FILED DEC. 30, 1904.

3 SHEETS—SHEET 1.



Witnesses:
Arthur A. C. C. Fuss.

Inventor:
Frederick J. Dole;
By his Attorney,
F. A. Richards.

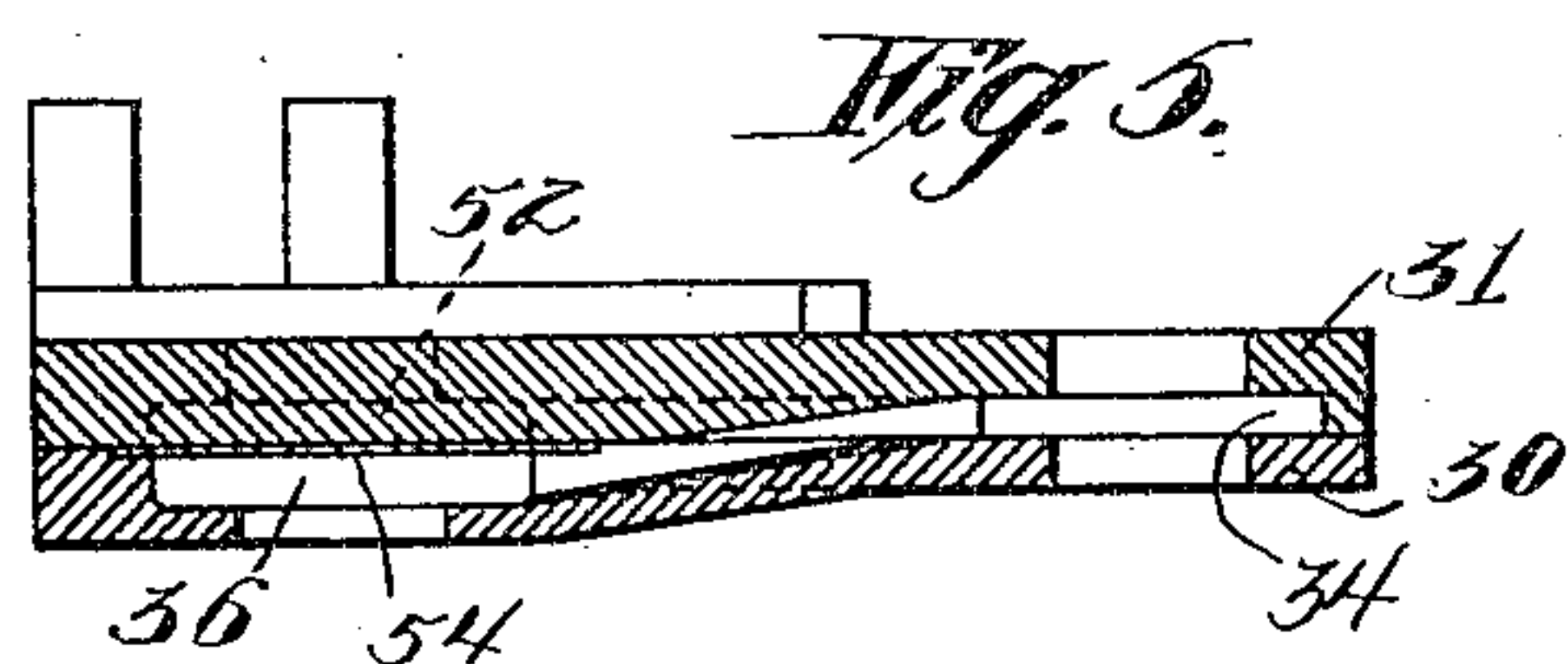
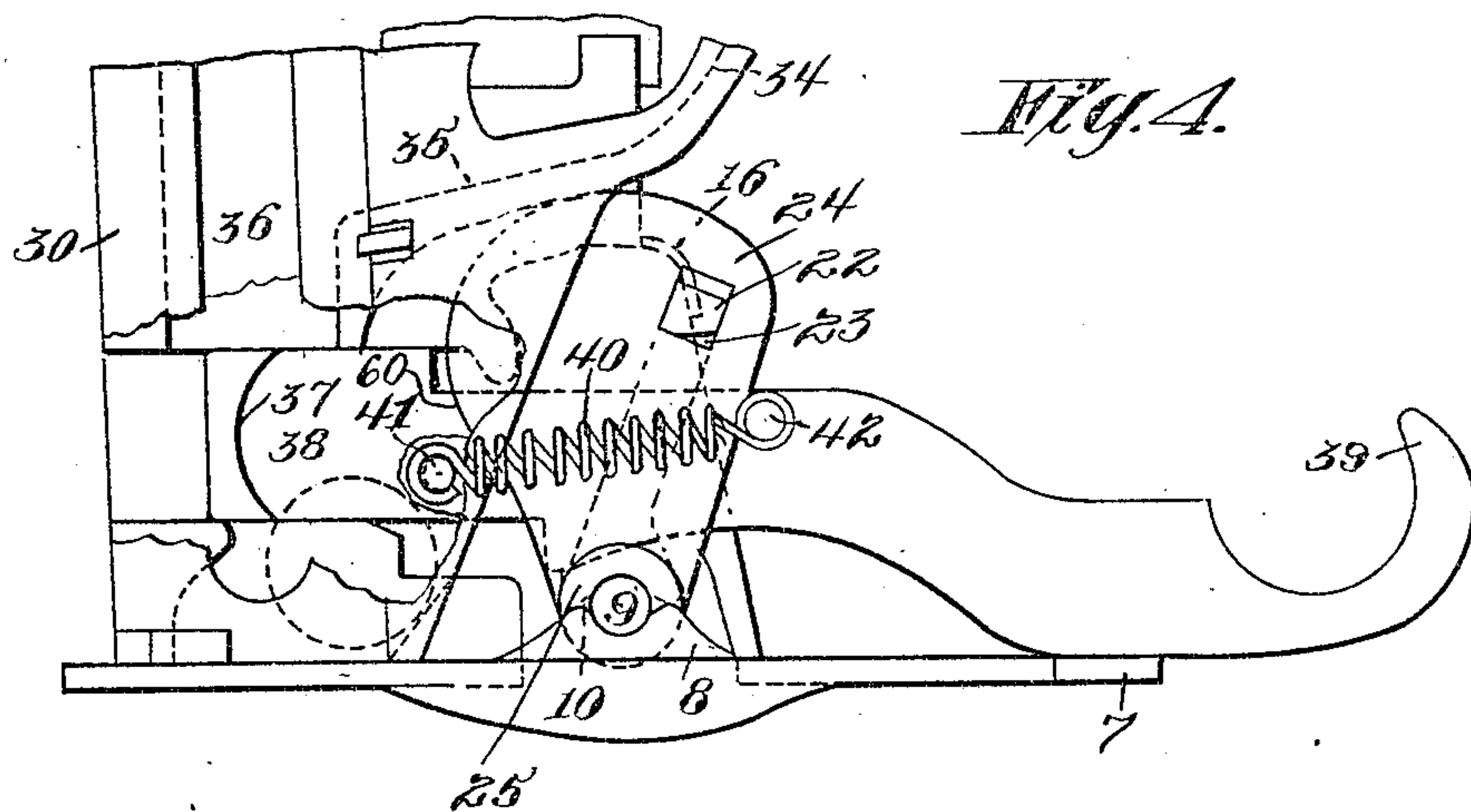
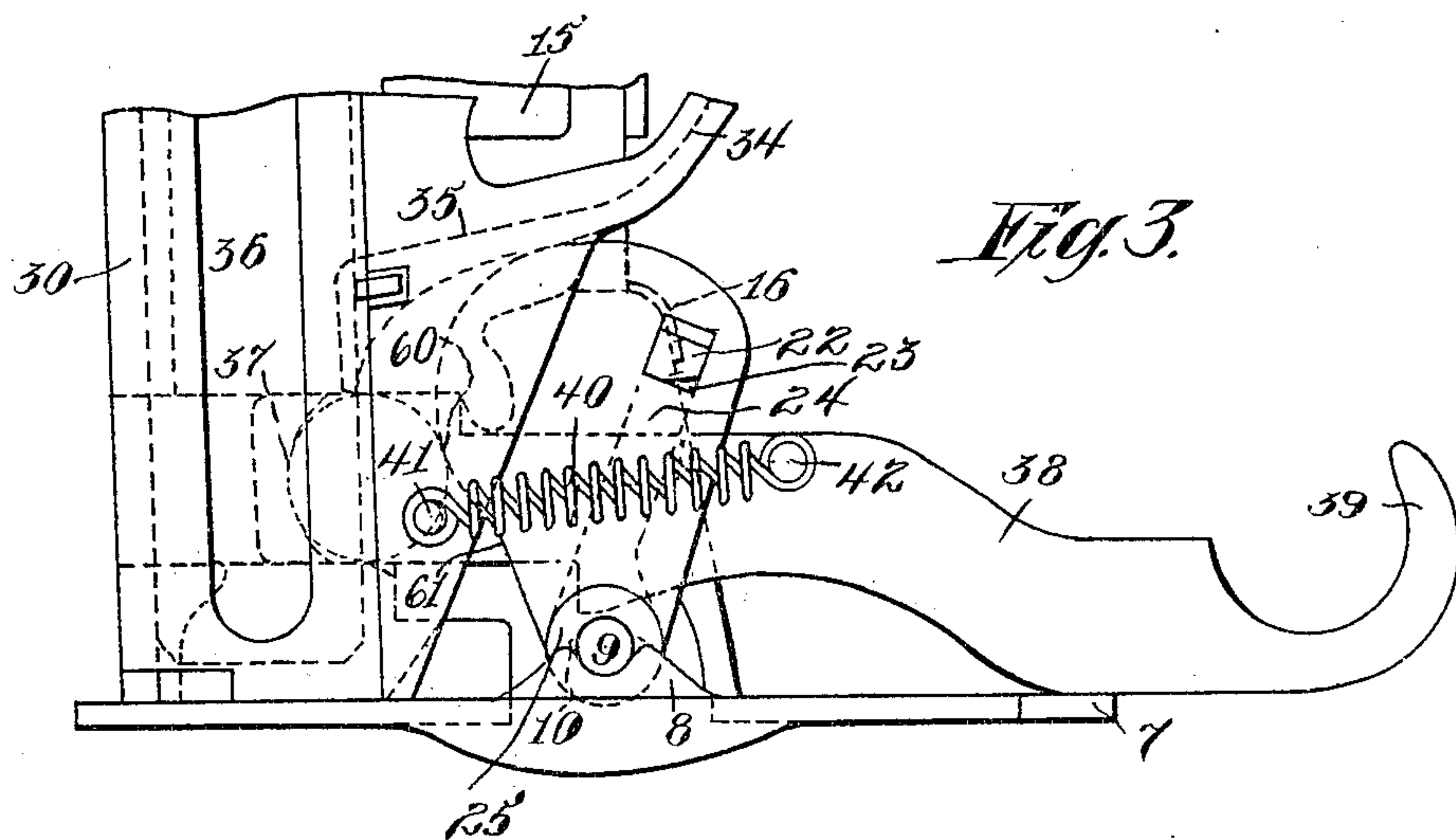
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3 SHEETS—SHEET 2.



Witnesses:

Robert A. A.

C. C. Foss.

Inventor:
Frederick J. Dole;
By his attorney:

F. A. Richards.

UNITED STATES PATENT OFFICE.

FREDERICK J. DOLE, OF NEW YORK, N. Y., ASSIGNOR TO THE GREAT AMERICAN AUTOMATIC VENDING MACHINE COMPANY, OF HOBOKEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

COIN-CONTROLLED APPARATUS.

No. 812,331.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed December 30, 1904. Serial No. 238,888.

To all whom it may concern:

Be it known that I, FREDERICK J. DOLE, a citizen of the United States, residing in the borough of Brooklyn, city of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Coin-Controlled Apparatus, of which the following is a specification.

This invention relates to and has for its object to provide an improved coin-controlled apparatus.

The drawings accompanying and forming a part of this specification illustrate a form of embodiment of the invention.

Figure 1 is a side elevation of the mechanism removed from its casing, showing in dotted lines the passage of a coin from the entrance of the coin-chute to the position where it is about to be engaged by the pull-bar and also illustrates in dotted lines a washer which has been deflected by magnetic means from the coin-chute. Fig. 2 is a plan view, parts being broken away to show the coin in its operative position. Fig. 3 is a portion of the device illustrated in Fig. 1, but showing the parts in a different position—namely, that of having the ejector thrown forward by means of a coin shown in dotted lines interposed between a projection upon the pull-bar and the ejector-actuator. Fig. 4 is a view of the parts shown in Fig. 3, but with the pull-bar in its returning position and the coin dropping out of its grasp. Fig. 5 is a cross-section on the line 5 5 of Fig. 1. Fig. 6 is a perspective view of a portion of the mechanism. Part of it is broken away to show other parts. Fig. 7 is a perspective view of the ejector removed, and Fig. 8 is a perspective, on a reduced scale, of a portion of the plate and the means thereon for holding the shaft in its proper position.

In coin-controlled apparatus it is desirable to have the operating mechanism simple and in few parts, not only for economy, but for permanency of adjustment, and wherein the parts are so adjusted one relatively to the other that wires and other instruments cannot be inserted for the purpose of working the ejector and thereby obtaining the goods or other salable commodity which the apparatus is intended to dispense.

An embodiment of my invention herein illustrated comprises a bed-plate 7, having

cast upon it pillow-blocks 8 to carry a shaft 9, and which shaft is held against said pillow-blocks by means of arches 10, which may be integral with the bed-plate 7. This affords a convenient means of assembling the machine, especially one wherein there will be several ejectors mounted in alinement and which may be thus mounted upon the same shaft, which shaft by means of friction between the pillow-blocks and arches will be held from rotating with any one of the ejectors which may be operated.

There is shown a package chute or receptacle 15, having a delivery portion 16, from which the merchandise to be dispensed may be ejected by the ejector, which in the present instance comprises a head 17, adapted to traverse the bottom of the chute and eject packages one at a time upon its forward excursions through said chute. Said ejector is shown as carried by a frame 18, having bearings 19 20 upon the shaft 9, and from one of which bearings, as 20, an arm 21 is shown to project, which carries a finger 22, engaging an opening 23 in a plate 24, having a hub 25 loose upon the shaft 9, and which plate is adapted to move back and forth in the coin-chute member, which comprises a pair of plates 30 31, fastened together in some convenient manner and between which is a coin-chute 32, which coin-chute has a portion 33 of gradual declivity and a precipitate drop portion 34, after which it again assumes a gradual decline 35 and then another drop at 36. A coin traversing it will be delivered at a position between a face 60 of the plate 24 and an engaging face 37 upon a slide or pull bar 38, which has a handle portion 39 and is held in its idle position by some suitable means, in the present instance a coiled spring 40, engaging lugs 41 42 upon the coin-chute member and such slide, respectively. After the coin has dropped into the position illustrated by the dotted lines 45 the drawing forward of the pull-bar will carry the coin into engagement with the face 60 and rock the plate 24 upon the shaft 9, thereby rocking the arm 21 and the ejector-frame 18, whereby the ejector will be passed through the lower portion of the package-chute, thereby ejecting the lowermost package therein, permitting the package to pass through the delivery-opening 16. The position of this

actuating-plate 24 is such that access cannot be had from the region of its location to the coin-chute.

In Fig. 3 the parts are shown in the positions they will assume at the end of the operation of ejecting a package, and Fig. 4 shows the parts in the positions they will assume when the pull-bar is returning to its rearward position and the plate 24 remaining substantially stationary and the coin dropping before such plate has made a backward movement, the plate being returned to its idle position by the lug 42 engaging it and pressing it backward. The face 60 of the plate 24 is undercut at 61 to strike the coin after the face 37 has moved away from it, and when the handle 39 is released to the influence of the spring 40 such portion or face 61 of the plate will expel the coin downwardly, striking it as it leaves its operative position.

The parts are so overbalanced that after the ejector has been drawn forward to its ejecting position it will remain in such position until positively returned, in the present illustration by the engagement of the lug with it. This prevents the coin being held between such plate and the coin-engaging face upon the pull-bar, which if continued would permit the repeated operation of the device by means of a single coin, and the action of the expelling-face 61 insures the removal of the coin independently of gravity.

As is well known, washers and other iron disks are frequently employed for robbing these machines, to prevent which a horseshoe magnet 50 is shown fastened, by means of a screw and bur 51, to the coin-chute frame and is located above the first drop 34 in the coin-chute.

Every coin entering the machine traverses the coin-chute and strikes the ends 58 59 of the magnet, as at the dotted-line position 57, and if it is of non-magnetic metal the recoil of the impact will cause it to drop down the portion 34 of the chute; but if the coin is of magnetic metal when it strikes the magnet ends it will adhere to the end 58 for a brief time, its momentum carrying it around such end and swinging it to a position where such momentum will release it and drop it in the dotted-line position 55 and upon a continuation of the coin-chute (shown at 52) on a plane slightly lower than the plane of the first decline 33 of the main coin-chute. A washer or other magnetic body passing through the first part of the coin-chute will by this magnetic means be prevented from traversing the coin-chute and arriving at the dotted-line position

56 at the end of the chute, but will be dropped down at 53, a plate 54 diverting it from the operative position of the coin and permitting it to idly enter the till of the machine.

Changes of detail and construction may of course be resorted to as found expedient in practice.

Having thus described my invention, I claim—

1. In a coin-controlled apparatus having a coin-slot, the combination of an operating-bar having an abutment-face for engaging the edge of a coin passed through such slot, a rocking plate having an abutment-face for the engagement of the opposite edge of the coin for rocking said plate when the bar is advanced, means for returning the bar to initial position, and means for returning the plate to initial position after the bar has been partially returned, whereby the resulting separation of the abutment-faces of such plate and bar will release the coin.

2. In a coin-controlled apparatus, having a coin-slot, the combination of an operating-bar having an abutment-face for engaging the edge of a coin passed through such slot, a rocking plate having an abutment-face for the engagement of the opposite edge of the coin for rocking said plate when the bar is advanced, means for returning the bar to initial position, and means for returning the plate to initial position after the bar has been partially returned, whereby the resulting separation of the abutment-face of such plate and bar will release the coin, and for striking the coin for displacing it from an operative position.

3. In a coin-controlled apparatus having a coin-slot, the combination of an operating-bar having an abutment-face for engaging the edge of a coin passed through such slot, the said face being convex with the chord of the arc disposed substantially vertical, the curvature corresponding approximately to that of the coin, a rocking plate having an abutment-face for engagement by the opposite edge of the coin to be thereby rocked when the bar and coin are advanced, means for returning the bar to initial position, and means for returning the plate to initial position after said bar has been partially returned, whereby the resulting separation of the said abutment-faces will release the coin.

Signed at Nos. 9 to 15 Murray street, New York, N. Y., this 24th day of December, 1904.
FREDERICK J. DOLE.

Witnesses:

C. A. WEED,
JOHN O. SEIFERT.