P. VARIA.

COIN CONTROLLED APPARATUS.

APPLICATION FILED OCT. 19, 1911.

1,012,941.

Patented Dec. 26, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

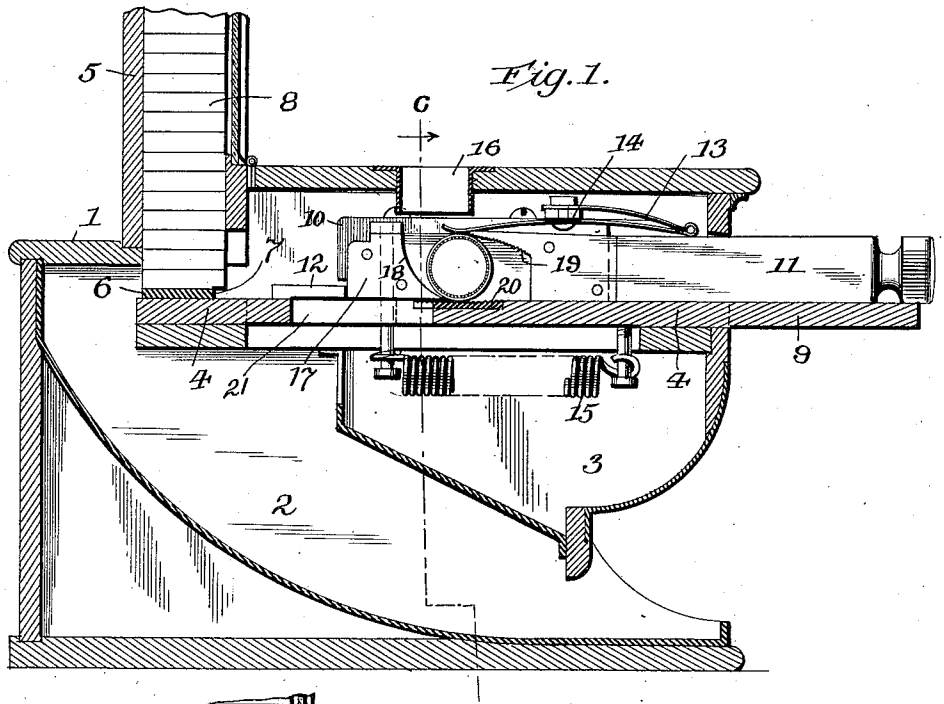
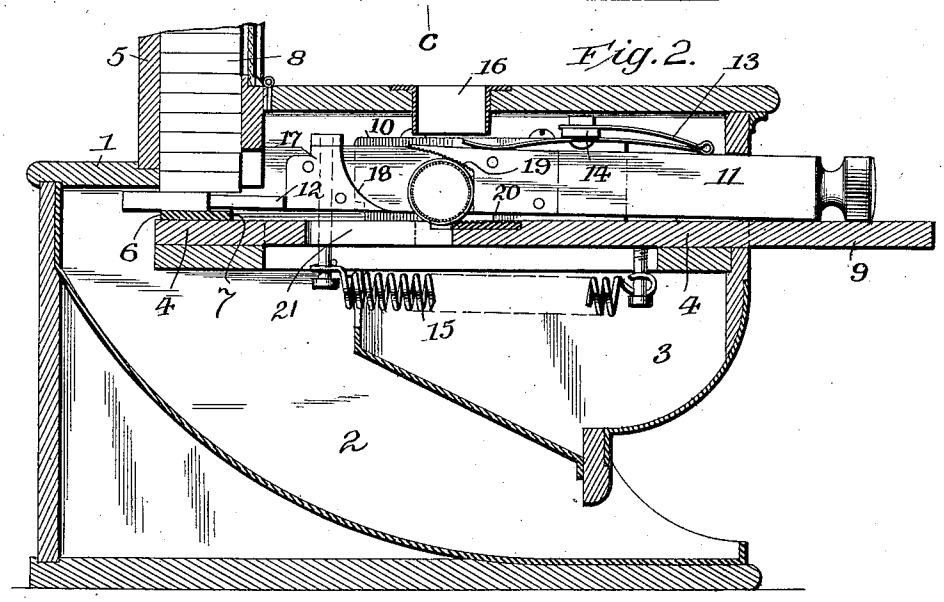


Fig. 2.



WITNESSES

C. H. Raeder

Fannie Hise

INVENTOR

Pietro Varia

by Dodge & Sons, Attorneys

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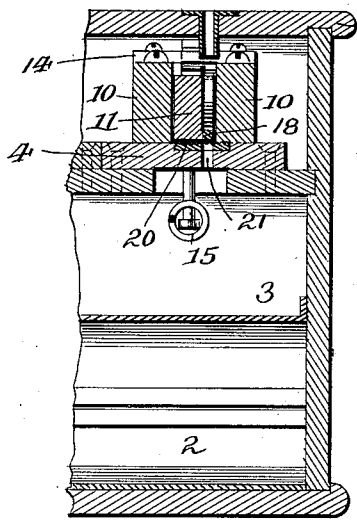

Fig. 3.

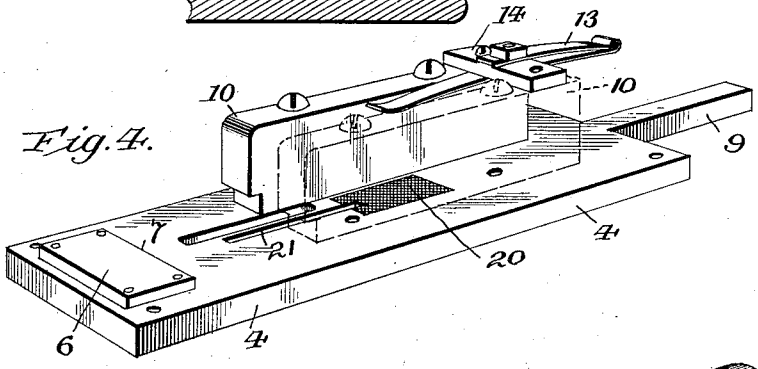

Fig. 4.

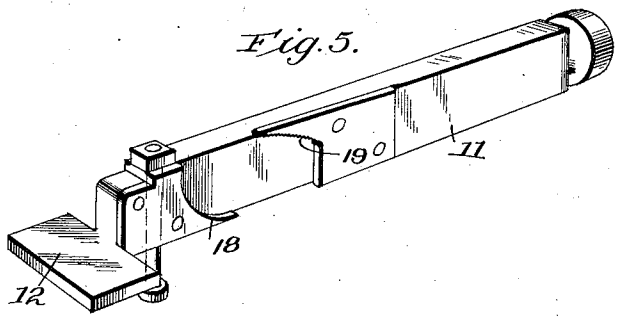

Fig. 5.

Witnesses

C. L. Raider

Fannie Weis

Pietro Varia,

Inventor

by Dodge & Dodge,

Attorneys

UNITED STATES PATENT OFFICE.

PIETRO VARIA, OF WHITE PLAINS, NEW YORK.

COIN-CONTROLLED APPARATUS.

1,012,941. Specification of Letters Patent. Patented Dec. 26, 1911.

Application filed October 19, 1911. Serial No. 655,500.

To all whom it may concern:

Be it known that I, PIETRO VARIA, a subject of the King of Italy, now residing at White Plains, in the county of Westchester and State of New York, United States of America, have invented certain new and useful Improvements in Coin-Controlled Apparatus, of which the following is a specification.

This invention relates to coin controlled vending machines of the type in which a plunger actuated by the purchaser is used to move a package to be sold from the magazine to the delivery chute.

The invention resides in the construction of the plunger in such manner that the coin when inserted rolls beneath a cam surface on the plunger, so that during the subsequent inward motion of the plunger the inner end of the plunger is raised and passes clear of a stop and then engages the package and forces it into the delivery chute. When a coin is not inserted the plunger is prevented from inward movement to any operative extent by the stop above mentioned.

Various fraud detectors or preventers of well known type, might be combined in obvious manners with plungers made in accordance with my invention, but as such are well known I shall here describe the simplest possible embodiment of my invention devoid of such attachments, in the accompanying drawings, in which:—

Figure 1 is a vertical section through a vending machine embodying my invention, showing the parts in their normal positions; Fig. 2 is a similar view showing the plunger moved part way in and showing the coin about to be discharged into the receptacle provided therefor; Fig. 3 is a section on the line *c*—*c* of Fig. 1, looking in the direction of the arrow; Fig. 4 is a perspective view of the plunger guides, the plunger being removed; and Fig. 5 is a perspective view of the plunger.

The mechanism is inclosed in the usual case 1 having the delivery chute 2 and the money box 3. Mounted in the case is a horizontal bed plate 4 which extends rearwardly beneath the vertical magazine 5 and carries directly beneath the magazine an elevated platform 6 whose forward edge 7 serves as the plunger stop. Upon this platform 6 rests the stack of packages 8 contained by the magazine and there is just sufficient space for these packages to be forced one at a time rearwardly into the delivery chute 2. The base plate 4 also has a forward extension 9 lying beneath the plunger and designed to support the outer end thereof.

Guided on the bed plate 4 by means of the side guides 10 is the plunger 11 whose outer end extends out through the case 1 and terminates in a handle. The inner end carries a pusher or delivery plate 12 which when lifted to clear the edge 7 of platform 6 may be pushed in over the platform and thereby force a package from and under the stack 8 into the chute 1. The plunger 11 is held down against the bed plate 4 by a leaf spring 13 carried by the cross bar 14 and further by the helical spring 15 which is attached to the plunger 11 and bed plate 4 and tends to retract the plunger to its outermost position.

The case 1 carries a slot 16 through which the proper coin may be inserted and this slot registers, when the plunger is in its outermost position, with the space between a plate 17 having an inclined edge 18 and a cam plate 19 having a serrated edge, both carried by the plunger 11. When a coin is dropped through the slot it strikes the inclined edge 18 of the plate 17 and is thrown toward the front of the machine under cam 19. Thus it becomes wedged closely between the cam 19 and a roughened or knurled surface 20 mounted in or formed on the bed plate 4 at the proper point.

After depositing the coin the operator next forces the plunger inward as far as it will go. By this action the coin is caused to roll under cam 19 thus forcing the inner end of plunger 11 upwardly so that delivery plate 12 is lifted clear of platform 6 and engages a package and forces it into the delivery chute. As soon as plate 12 has safely lapped platform 6 the coin drops into the money box through a slot 21 suitably located and throughout the remainder of the inward movement the plunger is held up by the platform. As the plunger returns to its forward position the plate 12 clears the platform 6 and the plunger drops down to its normal position. A return inward movement is then prevented by the engagement of plate 12 with the edge of platform 6 until the insertion of another coin. It is to be noted that the edge 7 is located to the rear of the front edge of the stack of packages so that the plunger will drop down before mov-

ing far enough forward to engage a second package.

Having thus described my invention, what I claim is:—

1. In a vending machine the combination of a case having a magazine and a delivery chute for packages and a receiving slot for coins; a base plate supported in the case; a plunger guided on the base plate and adapted when moved inward to engage and move a package from the magazine to the delivery chute; a stop adapted normally to obstruct the inward movement of the plunger; a cam mechanism carried by the plunger and adapted to coact with a coin introduced through the slot to deflect the plunger on its inward movement so as to clear the stop; and means for retracting the plunger.

2. In a vending machine the combination of a case provided with a magazine, a delivery chute for packages, and a coin slot; a base plate mounted in the case and provided with a roughened portion; a plunger guided on the base plate and adapted to engage and move a package from the magazine to the delivery chute; a stop adapted to obstruct the inward movement of the plunger; a roughened cam surface carried by the plunger, said cam surface and the roughened portion of the base plate being so arranged as to receive between them a coin entering through the slot and to coact therewith to deflect the plunger on its inward movement so as to clear the stop; means for discharging the coin after the plunger has moved past the stop; and a spring to retract the plunger.

3. In a vending machine the combination of a plunger, an obstructing stop; an inclined serrated member attached to the plunger and adapted to roll upon the edge of a coin to deflect the plunger and cause it to pass clear of the obstructing stop on the inward movement of the plunger; and means adapted to discharge the coin after the plunger has passed the stop.

4. In a vending machine, the combination of a case provided with a magazine, a delivery chute for packages and a coin slot; an elevated platform beneath the magazine adapted to support the packages contained thereby; a plunger normally prevented from inward motion by said platform; a cam carried by the plunger and adapted to coact with a coin inserted through the slot to raise the plunger clear of the platform and into engagement with a package in the magazine as it moves inwardly; and means for discharging the coin after the plunger has passed the forward edge of the platform.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PIETRO VARIA.

Witnesses:
CHARLES S. BORGILE,
ESTHER NELSON.

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