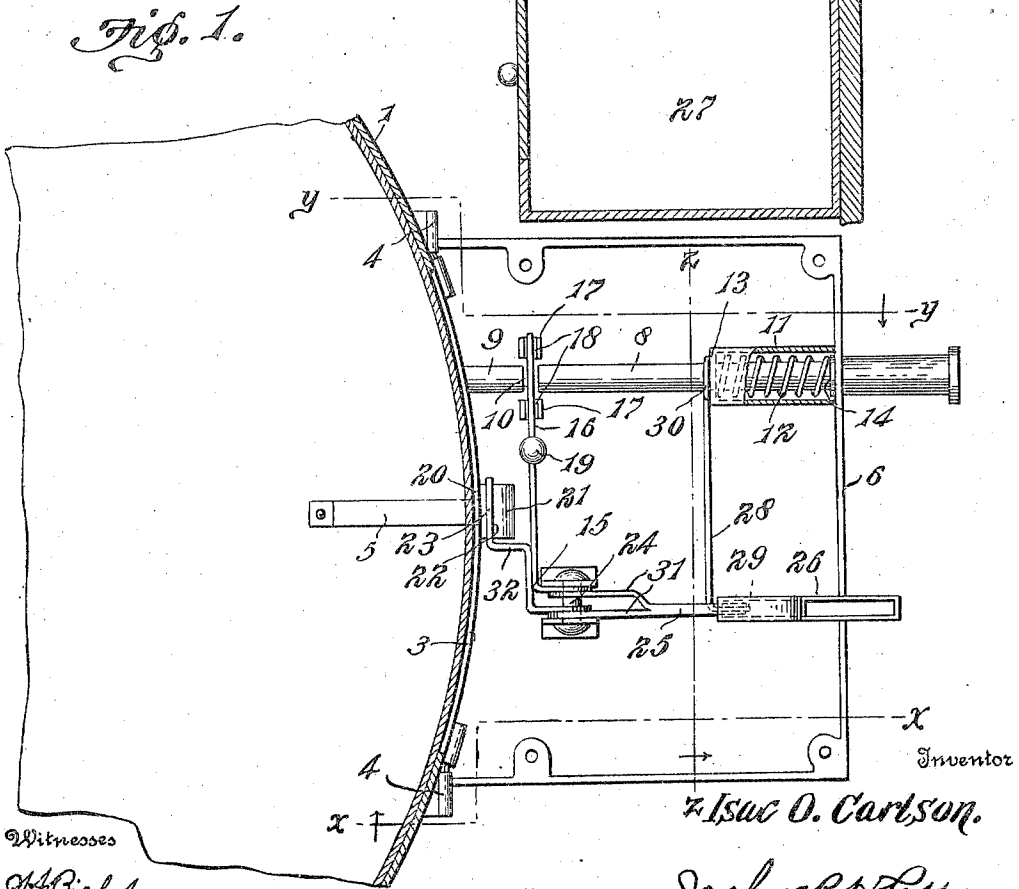
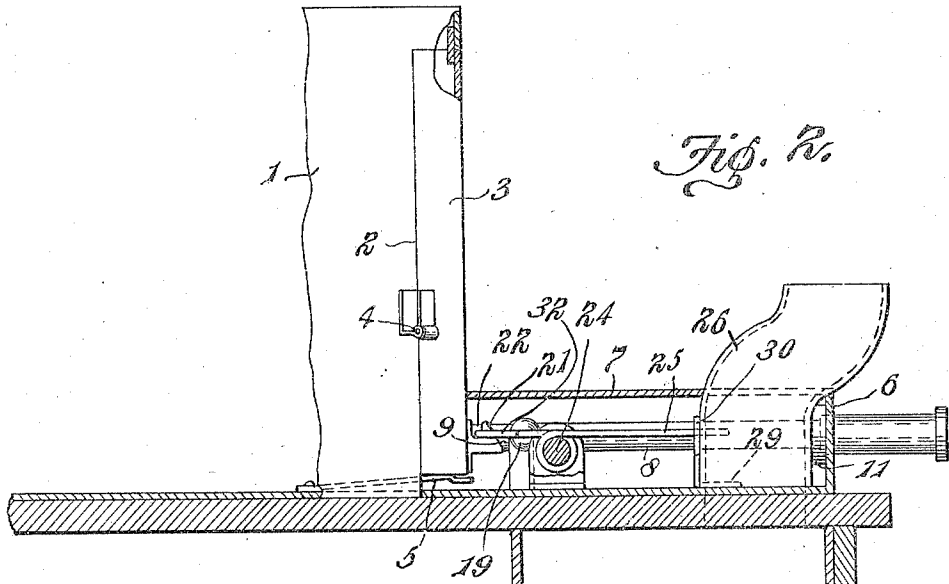


I. O. CARLSON.  
 COIN CONTROLLED MECHANISM.  
 APPLICATION FILED MAY 24, 1909.

951,434.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses  
*W. Bishop.*  
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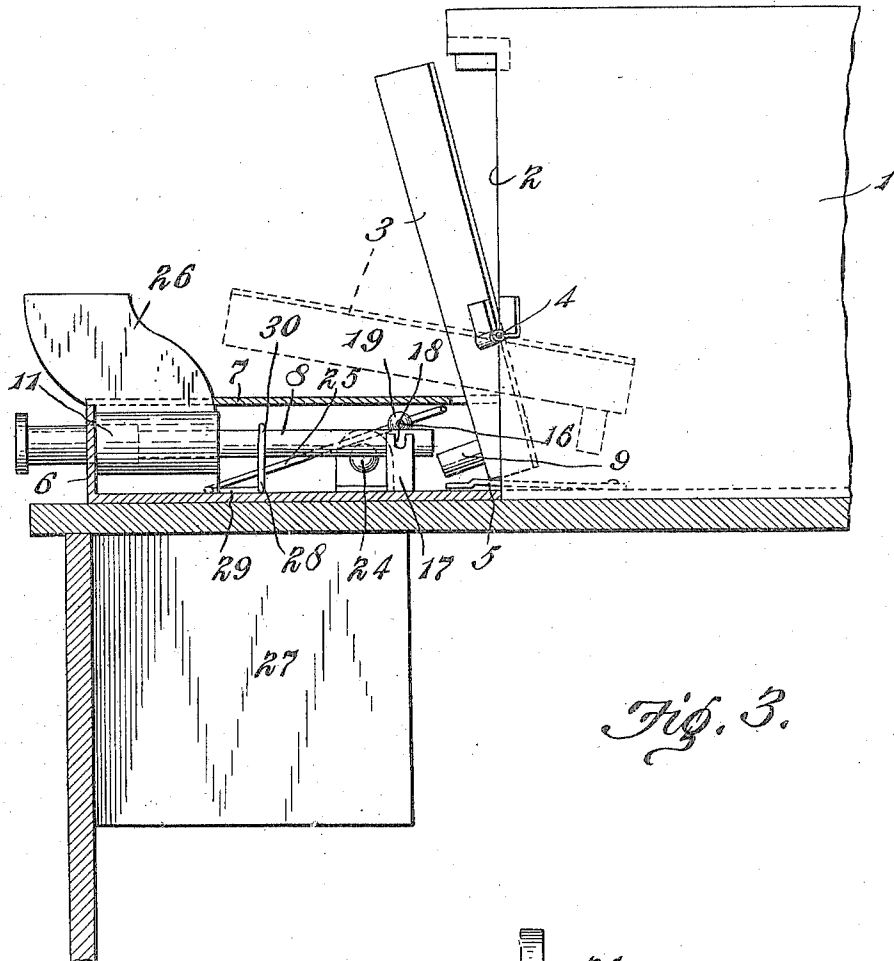
Attorney

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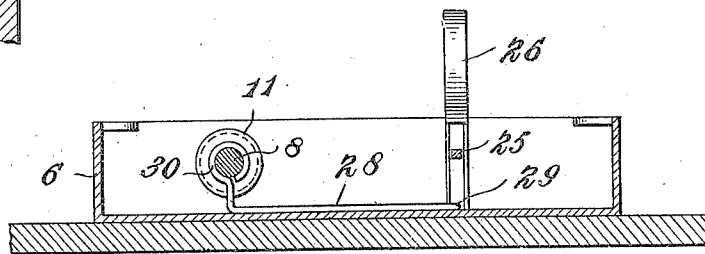
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2 SHEETS—SHEET 2.



*Fig. 3.*



*Fig. 4.*

Witnesses

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# UNITED STATES PATENT OFFICE.

ISAC O. CARLSON, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED MECHANISM.

951,434.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed May 24, 1909. Serial No. 497,939.

*To all whom it may concern:*

Be it known that I, ISAC O. CARLSON, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented a certain new and useful Coin-Controlled Mechanism, of which the following is a specification.

My invention relates to coin controlled mechanism and particularly to the coin controlled mechanism illustrated and described in my co-pending application for patent on food vending machines, Ser. No. 481,171.

The object of my invention is to provide an improved coin controlled mechanism provided with a manually operated plunger and one wherein the plunger and the parts to be operated thereby shall be unlocked or released by the coin.

A further object of my invention is to provide a coin controlled mechanism which shall be particularly adapted to operate the closure of the dispensing opening in the above mentioned food vending machine.

A further object of my invention is to provide a device as mentioned which shall be simple of construction and one that shall not readily get out of order.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in a dispensing device having a part to be actuated, a plunger for actuating said part, a rock lever normally locking said part and said plunger and a coin chute, one end of said lever extending into said chute so that a coin deposited therein will actuate the same to release said part and said plunger.

My invention further consists in a mechanism as above described in combination with means for supporting the portion of the lever adjacent the plunger in such a manner as to prevent said lever being bent or broken by the plunger when an attempt is made to actuate the machine without depositing the coin to release the parts.

My invention further consists in means for supporting the coin in lever operating position until the plunger is actuated and to release the same as the plunger is pushed inwardly.

My invention further consists in various details of construction and arrangements of parts all as will be fully described hereinafter and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which,

Figure 1 is a plan view of a coin controlled mechanism embodying my invention in its preferred form, Fig. 2 is a vertical section taken on substantially line  $x-x$  of Fig. 1, Fig. 3 is a similar view taken on substantially line  $y-y$  of Fig. 1, and Fig. 4 is a detailed section taken on the line  $z-z$  of Fig. 1.

Referring now to the drawings 1 indicates the casing of a vending machine and 2 the dispensing opening therein which is closed by a door or closure 3. The door is mounted upon hinges 4 to swing upon a horizontal axis, and the hinges are preferably arranged at a distance from the bottom of the door in order that pressure applied to the outer lower end of the door will open the same.

5 indicates a leaf spring adapted to engage the lower edge of the door to normally and yieldingly hold the same in closed position.

Arranged in front of the closure 3 is a casing for the coin controlled door operating mechanism, said casing comprising preferably a rectangular member 6 having a top closure 7. The closure 7 is preferably below the plane of the hinges 4 in order that the door 3 may open freely. Slidably mounted in the casing 6 is a plunger 8 which is adapted when pressed inwardly to engage the door 3 below the plane of the hinges or a projection 9 formed on said door. The projection 9 extends from the door into the casing 6 in alinement with the plunger 8, and said projection and said plunger are of such length as to provide a gap 10 between them when the parts are in normal position. The plunger extends through a tubular guide 11 secured to the front wall of the casing and a spring 12 is arranged within said guide for returning the plunger to initial position after having been actuated, said spring being interposed between the end 13 of the guide and a shoulder 14 formed on the plunger. When the plunger is moved inwardly it engages the projection 9 on the door and moves the same, together with the door into the position shown in full lines in Fig. 3. The upper end of the door being heavier than the lower end

will thereupon open the door into the position shown in dotted lines in the same figure.

Pivotally mounted within the casing 6 is a lever 15 having an arm 16 which normally extends through the gap 10 between the projection 9 and the adjacent end of the plunger. Arranged close to the path of the plunger and one upon each side thereof are a pair of blocks 17 having bifurcated upper ends forming recesses 18 to receive the arm 16 of the lever when in normal position. It is obvious that so long as the arm 16 rests within recesses 18 the plunger cannot be actuated and the recessed blocks 17 prevent the arm from being bent should undue pressure be applied to the plunger.

19 indicates a weight on the arm 16 for turning the same to normal position after having been raised out of the path of the plunger.

Means are also provided for locking the door 3 except when the lever 15 is actuated to release the plunger. To this end the door 3 is provided with a latch 20 having an inclined forward end 21 and a transverse notch 22. The lever 15 is provided with an arm 23 which is adapted to rest within said notch when the arm 16 is in position to lock the plunger. When the door closes the inclined end 21 raises the arm 23 until the notch 22 passes beneath the same.

The arms 16 and 23 of the lever are upon the same side of the pivot pin 24 and the lever is provided with an arm 25 extending in the opposite direction.

26 indicates a coin chute which extends through the casing 6 and discharges into a receptacle 27 arranged beneath the same. The end of the arm 25 extends within the chute so that a coin deposited in the latter will depress the arm 25 and raise the arms 16 and 23 releasing the plunger and unlocking the door. To prevent the coin from dropping through the chute into the receptacle 27 and permitting the door 3 to be locked before the plunger can be actuated, I provide an arm 28 secured to the plunger 8 and having its end 29 extending into the chute below the arm 25 so as to form a stop for the coin holding the same in operative position until the plunger is actuated. As the plunger is moved inwardly it withdraws the end 29 from the path of the coin permitting the latter to drop and releasing the lever. The end 30 of the arm which is attached to the plunger forms a stop to limit the outward movement of the plunger by abutting the end of the guide 11.

In the preferred construction and arrangement of the above described mechanism, the arm 25 is bifurcated at its inner end as at 31 forming a broad bearing for the lever on the pivot pin 24. The inner end of the arm 16 is perforated to receive the pivot pin and is soldered or otherwise

rigidly secured to one of the portions 31 and inner end of the arm 25 is likewise secured to the other portion 31 as clearly shown in Fig. 1. The arm 25 lies parallel with the plunger and the arms 16 and 23 are bent at right-angles thereto a short distance beyond the pivot pin, the arm 16 extending transversely of the path of the plunger 8, and the arm 23 extending substantially parallel with the door 3, said arm being off-set as at 32. The arm 28 extends laterally from the plunger 8 to a point beneath the arm 25 and is then bent parallel therewith to extend into the chute.

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

1. In a device of the class described, a part to be actuated in combination with a plunger for actuating the same, a pivotally mounted lever, an arm on said lever adapted to normally rest in the path of said plunger, notched blocks arranged close to the path of said plunger and one upon each side thereof to receive said arm, a coin chute and second arm on said lever having its end extending into said chute, substantially as described.

2. In a device of the class described, a part to be actuated and a plunger for actuating the same, in combination with a pivotally mounted lever, an arm on said lever adapted to normally rest in the path of said plunger, a coin chute a second arm on said lever having its end extending into said chute and an arm on said plunger having its end extending into said chute below the end of the lever arm and adapted to support said coin in said chute, substantially as described.

3. In a device of the class described, a casing and a pivoted door therefor, in combination with a plunger adapted to operate said door, a lever pivoted in said casing, an arm on said lever adapted to normally rest in the path of said plunger, a locking catch on said door, an arm on said lever adapted to normally engage said catch to lock said door, a coin chute, an arm on said lever projecting into said coin chute and adapted to be operated by the weight of a coin to release said plunger and said door, and an arm on said plunger projecting into said chute below said lever arm, substantially as described.

4. In a device of the class described, a casing and a pivoted door therefor, in combination with a plunger adapted to operate said door, a lever pivoted in said casing, an arm on said lever adapted to normally rest in the path of said plunger, notched blocks arranged close to the path of said plunger and one upon each side thereof to receive said arm, a locking catch on said door, an arm on said lever adapted to normally en-

5 gage said catch to lock said door, a coin chute, an arm on said lever projecting into said coin chute and adapted to be operated by the weight of a coin to release said plunger and said door, and an arm on said plunger projecting into said chute below said lever arm, substantially as described.

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

ISAC O. CARLSON.

Witnesses:

CORA M. JOHNSON,  
JOHN P. GEHRING.