No. 827,448. PATENTED JULY 31, 1906.

E. C. JANSON.

VENDING MACHINE.

APPLICATION FILED AUG. 21, 1905.

Fig. 1.

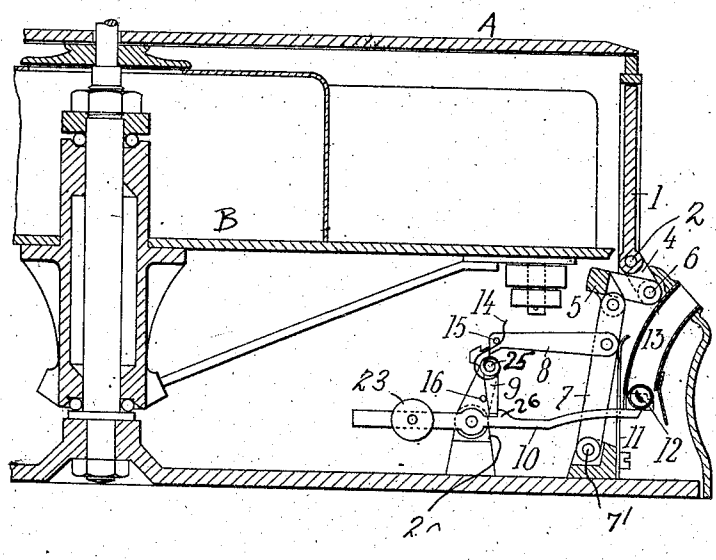


Fig. 2.

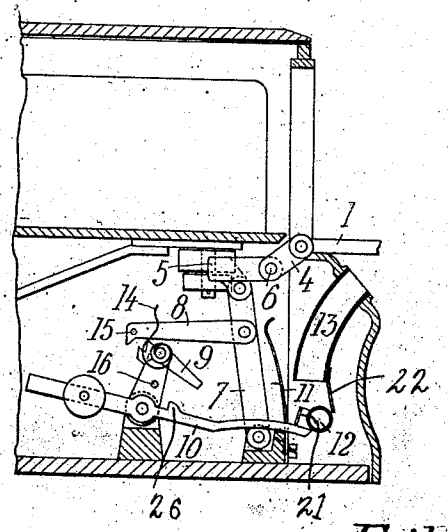
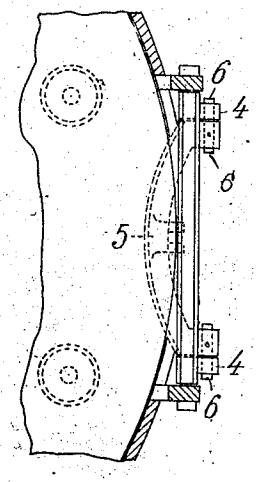


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ERIK CLAES JANSON, OF STOCKHOLM, SWEDEN, ASSIGNOR TO CARL PEHR JOSEF JONSSON, OF STOCKHOLM, SWEDEN.

VENDING-MACHINE.

No. 827,448. Specification of Letters Patent. Patented July 31, 1906.

Application filed August 21, 1905. Serial No. 275,130.

To all whom it may concern:

Be it known that I, ERIK CLAES JANSON, mounter, a subject of the King of Sweden and Norway, residing in Stockholm, Sweden, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to coin-controlled vending-machines, and has for its principal object to provide a mechanism of simple construction which may be operated on the insertion of a coin and without any subsequent manipulation for the purpose of opening or otherwise moving the delivery-door or the like, so that access may be had to the article purchased.

A further object of the invention is to provide an apparatus having a door or shutter which may be moved to open position on the insertion of a coin and is so balanced when closed that its weight will not interfere with the operation of the coin-controlled mechanism.

A still further object of the invention is to provide an apparatus of this type in which the parts may be readily adjusted to operative position by the simple closing of the door or shutter.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a sectional elevation of a portion of a vending-machine, illustrating a coin-controlled mechanism constructed in accordance with the invention. Fig. 2 is a similar view showing the parts in the positions assumed after the insertion of a coin. Fig. 3 is a sectional plan view through a portion of the casing, showing the mounting of the delivery-door or shutter.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The apparatus forming the subject of the present invention is intended principally for use in connection with devices of that class wherein a casing A is provided with a movable door or shutter 1, which may be opened after the insertion of a coin for the purpose of obtaining access to a revoluble carrier B, on which the articles exposed for sale are carried.

In carrying out the invention the door 1 is normally maintained in the vertical position shown in Fig. 1, said door being mounted on a pivot-pin 2, the ends of which are supported by the casing. Projecting from the opposite sides of the door are inclined arms 4, which are projected downwardly and forwardly of the pivot-pin 2 and are connected by a pivot 6 to the ends of an arcuate bar 5, said bar being arranged to extend across the vertical plane of the axis of the pivot-pin 2. The inner central portion of this bar is supported by a link 7, the lower end of which is pivoted on a pin 7′ within the lower portion of the casing, and said link is designed to support the weight of the inner portion of the arcuate bar 5, so that the door 1 will be evenly balanced and will tend to remain in the vertical closed position.

Within the lower portion of the casing is arranged a standard 20, to which is pivoted a coin-actuated bar 10, the front end of the bar being curved upward slightly and being disposed below the bottom of a coin-chute 13 in position to receive the weight and impact of deposited coins, and this end of the bar is provided with side guards 21 in order to prevent lateral discharge of the coin, the latter being compelled to pass below a slightly-inclined front arm 22, that extends from the forward edge of the lower portion of the coin-chute. The rear end of the bar 10 is provided with a counterbalancing-weight 23, which may be adjusted in accordance with the weight of the coin to be used in operating the machine, and the bar must be so balanced that when its forward end is struck by a descending coin it will be tilted down from the position shown in Fig. 1 to that illustrated in Fig. 2.

The upper portion of the bracket 20 carries a pin 25, on which is mounted a two-armed locking-lever 9, the lower and heavier arm of which is arranged to engage with a shoulder 26, formed on the upper edge of the coin-engaged bar 10. The upper arm of the lever 9 is notched to form shoulders that engage

with the pointed end of a pawl 8, that is pivotally connected to the link 7, and a spring 11, bearing against the front face of this link, tends to hold the pawl in engagement with said shoulder. Movement of the lever 9 in one direction is limited by a stop-pin 16, and a spring 14 tends to move said lever in the opposite direction for the purpose of maintaining its lower end in frictional engagement with the shoulder 26. This spring 14 is secured at one end to a pivot-pin 25 and at its opposite end bears against the forward side of a pin 15, projecting from the pawl 8, said spring serving also as a means for maintaining the pawl in engagement with the shoulder of the lever.

With the parts in the position shown in Fig. 1 it will be seen that the spring 11 tends to thrust the link 7 to the rear; but its movement is resisted by engagement of the pawl 8 with the shoulder at the upper end of the lever 9 and the force exerted by the spring is transmitted through this lever to the shoulder 26 of the coin-engaged bar 10, these parts being balanced and the movable door being maintained in its vertical closed position.

When a coin is inserted in the chute 13, it falls into engagement with the bar 10, and the weight and impact of the coin moves said bar down until the shoulder 26 is free of the lever 9, whereupon said lever is turned from the position shown in Fig. 1 to that illustrated in Fig. 2 by means of the springs 14 and 11, the link 7 being thrust to the rear and forcing the door 1 to open position, so that access may be had to one of the compartments of the vending-platform B.

The platform is then turned in the usual manner in order to restore the door to its closed position, whereupon the spring 14 moves the lever 9 to the position shown in Fig. 1 and the latter again engages with the shoulder 16 of the coin-actuated bar.

I claim—

1. In apparatus of the class described, the combination with a movable door, of a spring-actuated link serving as a door-opening means, mechanism connecting the link to the door, a coin-chute, a coin-actuated bar having one end adjacent to the bottom of the chute, a pivotally-mounted lever having one end engaging said bar, and a pawl carried by the link and arranged to engage the opposite end of said lever.

2. In mechanism of the class described, the combination with a pivotally-mounted door, of a spring-actuated link for opening said door, a coin-chute, a coin-actuated bar having one end adjacent to the bottom of the chute and provided with a catch-shoulder, a pivotally-mounted lever, the lower arm of which engages such shoulder, a pawl carried by the link and engaging the upper arm of said lever, and a spring extending between the lever and pawl and serving to transmit movement from the pawl to the lever as the door is moved to closed position.

3. In apparatus of the class described, the combination with a vertically-swinging door normally maintained in closed position, of forwardly and downwardly extending arms projecting from the pivot-point of the door, an arcuate bar connecting said arm, a link having one end connected to a fixed point, and the other end to said bar, a spring acting on the link and tending to move the door to open position, a pawl carried by said link and provided with a projecting pin, a coin-chute, a coin-actuated bar having one end adjacent the bottom of the chute, said bar having a catch, a pivoted lever, the upper arm of which is shouldered, and its lower arm being arranged to engage the shoulder of the coin-actuated bar, said pawl normally engaging the shouldered end of the lever, and a spring extending between the lever and the pawl-pin, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ERIK CLAES JANSON.

Witnesses:
M. CARLSON,
SIXTI WAHLSTRÖM.