

L. HORINKO.
 COIN OPERATED MECHANISM FOR VENDING MACHINES.
 APPLICATION FILED JULY 18, 1910.

986,985.

Patented Mar. 14, 1911.

Fig. 1

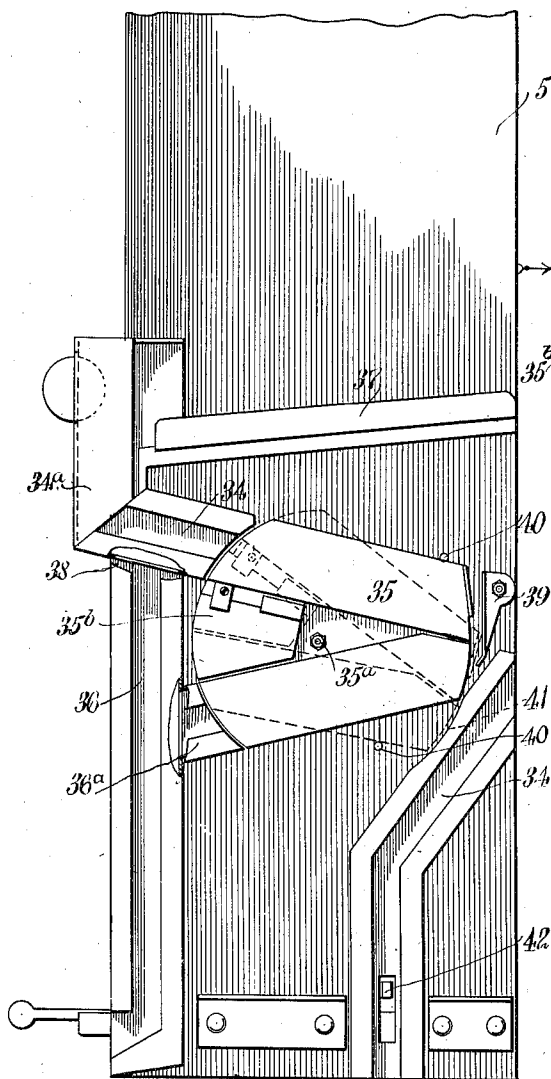


Fig. 2

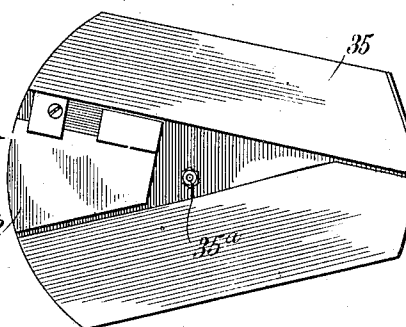
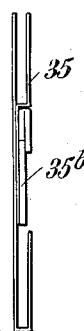


Fig. 3



WITNESSES:

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COIN-OPERATED MECHANISM FOR VENDING-MACHINES.

986,985.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed July 18, 1910. Serial No. 572,462.

To all whom it may concern:

Be it known that I, LEONARD HORINKO, a subject of the Czar of Russia, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Coin-Operated Mechanism for Vending-Machines, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide a coin receiving chute arranged to prevent malicious clogging thereof; to provide means whereby coins introduced within the machine carelessly or with unintentional violence will be placed in operative position without loss and without disarrangement of the selecting mechanism; to provide a coin selective mechanism the operation whereof eliminates coins of smaller size and of lesser weight than the coin designed for the operation of the vending mechanism of the machine; to provide a coin selecting weight balanced mechanism having means for varying the balancing weight; to provide means for preventing the accidental deposit of coins of lighter weight than the selected coin, passing to the lock releasing mechanism of the machine; and to simplify and economize the construction.

With the above objects in view the invention consists in providing a vertically disposed receiving section for the coin chute, the outer edge whereof is provided with a coin sized slot, and the opposite or inner edge whereof is opened within operating radius of the said slot to avoid any retaining projections in the section adjacent the inner edge whereby any obstructive material, such as cardboard, pieces of wire or lead, maliciously inserted within the coin slot are crowded through the vertical section instead of remaining therein to possibly clog the same.

It further consists in providing a runway or shelf adjacent the said vertical chute section below the slot formed therein extended above the coin operated mechanism disposed below and in line with the slot opening whereby the obstructive articles above referred to are prevented from interfering with the said mechanism. It is to provide for the return of coins carelessly or violently introduced through the coin slot and which might avoid the coin operated mechanism by reason of the opening in the receiving

chute section, that I have inclined the protective shelf above referred to and formed the same so that the coin precipitated through the slot would be received on the said shelf and delivered back to the receiving chute to be thereby finally selected and deposited in operative position.

It further consists in separating the coin chute to form three sections, one a coin receiving section, another a latch containing section and the third a weight operated switch section to transfer the coins of proper denomination to the latch section of the chute, also to deliver coins of improper denomination to the purchaser.

It further consists in forming a buffer member so related to the switch section that the coins of improper denomination are guided to the switch delivery chute and away from the said latch chute.

It further consists in the construction and arrangement on the switch section of an adjustable balancing weight.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a side view of a magazine tube of a vending machine, having mounted thereon a coin operating mechanism constructed and arranged in accordance with the present invention; Fig. 2 is a detail view, on an enlarged scale, of the balancing switch section; and Fig. 3 is a vertical cross section taken on the line 3—3 in Fig. 2.

In a separate application filed April 28, 1910, bearing Serial No. 558,280, for improvements in vending machines, there is described and shown a vending mechanism adapted to be controlled and operated by the coin for the receipt and guidance of which the present invention is made. Cross reference is here made to the said application.

In the application to which cross reference is made, there is shown a series of magazines for containing the articles being vended. On one side of each of the magazines designated in the accompanying drawings by the numeral 5, are fixedly attached the sections 34^a and 34^c of the coin chute. Interposed between the sections 34^a and 34^c is a balanced switch member 35. The switch member 35 is pivotally mounted at 35^a upon the side of the magazine 5, and

has two chute sections 35^b and 35^c angularly arranged on opposite sides of the pivot 35^a. The switch member is normally over-balanced by the weight portion 35^b. The switch member is held in normal receiving position by the stop pin 40 being pressed against the same by the over-balancing weight 35^b. The lower chute section 35^a is normally registered with the chute section 36^a leading into the vertical discharge chute section 36.

The chute sections 35^c and 35^a of the switch member 35 communicate each with the other, the lower wall 35 being cut away at the forward end thereof. The end of the upper chute section 35^c is partially closed by the wall 35^f. Between the lower edge of the wall 35^f and the forward edge of the wall 35^e the proper coin may pass. The wall 35^f, however, serves to check the flight of the coin. During the period after the coin has passed the pivot 35^a the weight of the said coin uptilts the switch member to the position shown in dotted lines in Fig. 1 of the drawings, in which position it is held by the stop pin 40^a. In this manner the coin A received through the coin slot provided in the front edge of the vertical chute section 34^a is delivered to the chute section 34^c, into which is projected the end of the latch 42 whereby the discharge carrier 21 of the vending mechanism is released, the weight of the coin resting on the latch 42 serving to lift the locking end of the said latch, as disclosed in the application above referred to. In this position of the switch member it will be observed that both the upper chute section 35^c and the lower chute section 35^a are inclined to deliver into the upper section 41 of the delivery chute section 34^c. It is obvious that should a coin of smaller diameter gain admission to the chute section 35^c, which would fail to tilt the switch member, the same would, if not interfered with, pass under the wall 35^f through a path which would deliver the same into the chute 34^c. It is to avoid this that I have placed the buffer member 39, covering the end of the chute section 35^c when the same is in the normal position, and having the end 39^a extended across the path of the said small coin. The result of this interposition is that the coin striking the resilient finger 39^a caroms thereon into the chute section 35^a to be delivered thence to the chute section 36^a, and by way of the chute 36 is discharged to the delivery tray of the machine, shown in the above mentioned application. I prefer the resilient finger 39^a. It will, however, be recognized that I may use a rigid finger.

It is to adapt the machine for employment with coins of various weights, and to correct the balance of each of the switch members, that I have provided the adjustable corrective weight member. The cor-

rective weight member is secured fixedly in adjusted position upon the switch by means of a set-screw 35^k. The said weight member is guided in a slot 35^k.

The vertical chute section 34^a is provided with an extension 34^d, upon which is fixedly mounted the channeled shelf 37. The section 34^a is provided in the front or outer edge thereof with a slot, the opening whereof is determined by the diameter of the coin for which the mechanism is constructed. The rear or inner edge of the chute section is freely open. The shelf 37 is inclined from the chute section 34^a upwardly. The lower and front end of the shelf 37 is below the slot for the coin A. Due to the construction and arrangement, when, as often happens, cardboard or strips of lead are inserted in the coin slot with the malicious intent to block the channel of the chute 34^a, the said cardboard or lead strip is received upon the shelf 37 and guided thereby backward and away from the slot and chute section 34^a. A further purpose of the shelf 37 is to prevent articles of the character mentioned being precipitated upon the switch member 35. By inclining the shelf 37 in the manner shown and described, a further object is conserved in that the coin, if slipped through the slot in the section 34^a, instead of being lost is received upon the shelf 37 and returned by said shelf and redeposited in the section 34^a, passing therefrom to the inclined portion thereof and thence to the switch member 35 and delivery chute section 34^c.

The chute section 34^a is provided with eliminating devices, whereby coins or articles of small size are prevented from gaining access to the switch member 35. The devices consist in the slot 34^b formed in the inclined section of the chute section 34^a. The inclined section is slightly side tilted so that the coin is thrown off balance to rest against the upper rail of the chute adjacent the said slot 34^b. A further device consists in the introduction in the lower edge of the inclined section of the chute 34^a of a slot 38 opening into the chute 36. The slot 38 is formed to a size which will not pass the coin of a denomination for the operation of which this machine is devised.

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

1. A coin operated mechanism, comprising a coin chute and a tilting coin chute having an upper branch through which are adapted to pass and be discharged at an operative point, coins of a prescribed weight, and having a lower branch through which the upper branch discharges coins of a lesser weight to a point of ejection.

2. A coin operated mechanism, comprising a coin chute having two separated chute

sections, the one to receive the coin and the other to guide the coin into operative relation with a correlated mechanism; a switch member pivotally mounted between the said chute sections and having divergent superposed inclined chute sections, the upper section to receive the proper coins from said receiving chute section to deliver the same within said delivery chute section, and the lower section to deliver the improper coins away from said delivery chute section; and a balancing weight adjustably mounted on said switch member to counter-balance the weight of said improper coins and to be lifted by said proper coins.

3. A coin operated mechanism, comprising a coin chute having two separated chute sections, the one to receive the coin and the other to guide the coin into operative relation with a correlated mechanism; a switch member pivotally mounted between the said chute sections and having divergent superposed inclined chute sections, the upper section to receive the proper coins from said receiving chute section to deliver the same within said delivery chute section, and the lower section to deliver the improper coins away from said delivery chute section; and a buffer member disposed between the delivery end of the upper chute of said switch member and said delivery chute section, said buffer being disposed to interfere with said improper coins to deflect them into the said lower chute of said switch member.

4. A coin operated mechanism, comprising a coin chute having two separated chute sections, the one to receive the coin and the other to guide the coin into operative relation with a correlated mechanism; a switch member pivotally mounted between the said chute sections and having divergent superposed inclined chute sections, the upper section to receive the proper coins from said

receiving chute section to deliver the same within said delivery chute section, and the lower section to deliver the improper coins away from said delivery chute section; an arresting wall disposed at the end of the upper chute of said switch member arranged to impinge upon and arrest proper coins only and to pass improper coins; and a buffer member disposed adjacent to said arresting wall to receive in flight the improper coin as same leaves the upper chute of said switch member to deflect the same to the lower chute of said switch member.

5. A coin operated mechanism, comprising a coin chute having two separated chute sections, the one to receive the coin and the other to guide the coin into operative relation with a correlated mechanism; a switch member pivotally mounted between the said chute sections and having divergent superposed inclined chute sections; the upper section to receive the proper coins from said receiving chute section to deliver the same within said delivery chute section, and the lower section to deliver the improper coins away from said delivery chute section; an arresting wall disposed at the end of the upper chute of said switch member arranged to impinge upon and arrest proper coins only and to pass improper coins; and a resilient buffer member disposed adjacent to said arresting wall to receive in flight the improper coin as same leaves the upper chute of said switch member to deflect the same to the lower chute of said switch member.

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

LEONARD HORINKO.

Witnesses:

W. W. HOLT,
PHILIP D. ROLLHAUS.