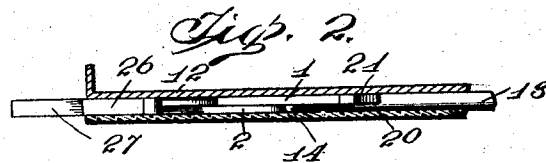
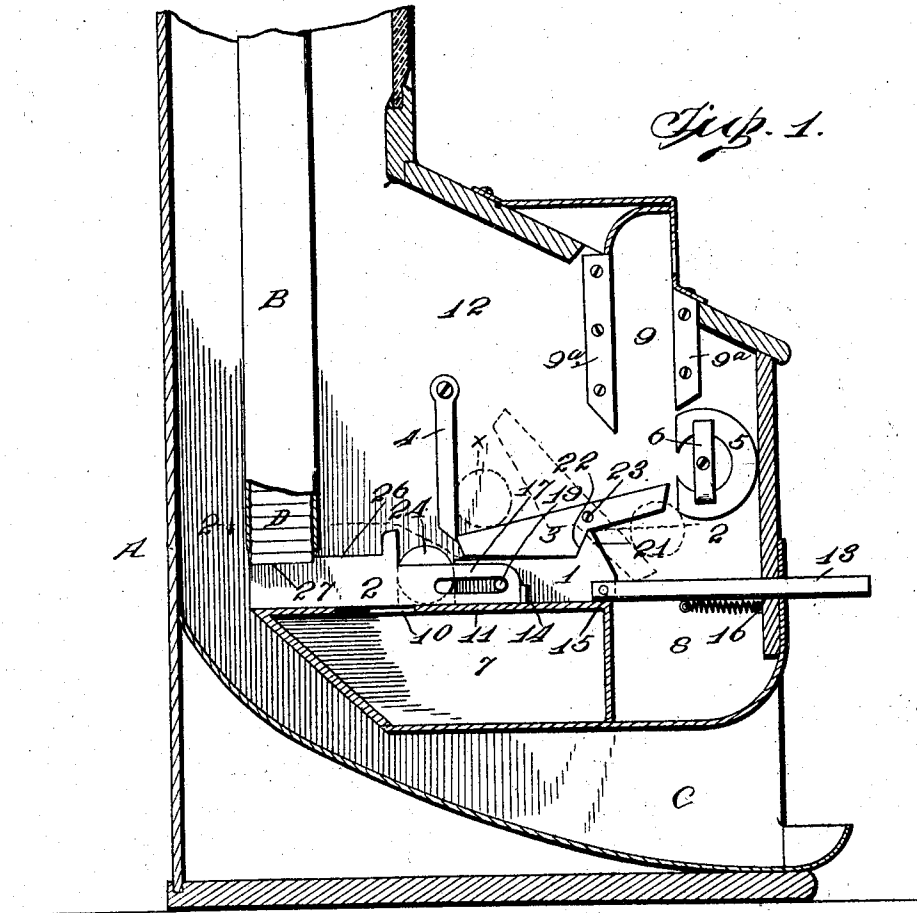


No. 800,174.

PATENTED SEPT. 26, 1905.

T. J. SCHMIDT.  
VENDING MACHINE.

APPLICATION FILED JAN. 19, 1904.



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# UNITED STATES PATENT OFFICE.

THEODORE J. SCHMIDT, OF TOLEDO, OHIO.

## VENDING-MACHINE.

No. 800,174.

Specification of Letters Patent.

Patented Sept. 26, 1905.

Application filed January 19, 1904. Serial No. 189,713.

*To all whom it may concern:*

Be it known that I, THEODORE J. SCHMIDT, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Vending-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in vending-machines; and it consists in certain features of novelty in the construction and operation thereof whereby my improved machine is constructed in such manner that it will pass for vending purposes no aluminium or cardboard slugs or slugs made from lead, iron, or brass, but will always pass a cent, and in which the parts are so arranged to operate that it is automatically clearing and will positively prevent blocking or stuffing upon insertion therein of unauthorized coins.

In the drawings similar characters of reference indicate corresponding parts in the views, wherein—

Figure 1 is a vertical sectional view of my improved machine, showing the operating mechanism thereof in relatively dormant position; and Fig. 2 is a sectional view taken on line 2 2 of Fig. 1.

In the drawings, A is an outer casing, which may be of any preferred type usually common to this class of machines, this particular machine being designed as a chewing-gum-vending machine and is provided with the usual gum-chute B, from which the gum packages are ejected to the delivery-chute C common to this class of machines.

Within the machine and suitably supported above the money-box is a longitudinally-slidable plunger 1, while lying in the plane of the longitudinal axis of said plunger and connected therewith is an ejecting-plunger 2. Above the plunger 1 is a pivotally-supported rockable scale or balance 3, and loosely but pivotally supported, so that its lower end will come in close proximity to the inner end of said scale 3, is a light and easily-shifted plate 4. In convenient proximity to the outer end of the scale or balance 3 is a permanent magnet 5. The balance 3 is preferably of iron and is to some extent influenced by the said

magnet 5, so that the operation of said scale 3 is to an appreciable extent affected by said magnet.

6 is a clip adapted to support the magnet 5 by means of any suitable connecting means clamping the magnet into position against the vertical wall 12 of the device.

7 is the money-box proper, into which it is intended that coin of the proper denomination shall be deposited.

8 is a slug-box—that is, a box into which all coins or imitations thereof or substitutes therefor which are not of the proper current value shall be deposited by the automatic operation of the machine.

9 is a slot commonly incident to this class of machines, provided with the guides 9<sup>a</sup> 9<sup>b</sup> at the sides thereof to limit the passage for the coin to a proper size.

10 is a slot in plate 11, said slot leading to the money-box 7.

D indicates the packages in the chute B, which packages it is desired to eject by means of the ejector 2.

13 is a handle projecting outwardly beyond the casing A and connected at its inner end with the plunger 1.

14 is a stop in line with the offset portion 15 of the handle 13, against which the said inner offset portion of the said handle will abut upon operation of the plunger, except when a coin of the proper denomination is properly positioned in the machine.

16 is the usual retractile spring for returning the plunger and its connected mechanism to its proper normal position.

Connecting the plunger 1 and ejector 2 is a longitudinally-slotted yoke 17, having the elongated slot 18 therein, within which slot plays the pin 19, as shown in Fig. 1.

It will be evident that the parts described shall be properly supported in position, and those parts which have relatively fixed positions are connected with the vertical wall 12, which forms a separate partition within the machine, and lying parallel therewith, so as to form with 12 a narrow passage leading to said parts, is a glass plate 20, through which the operation of the parts may be inspected, yet by which said parts are protected when desired.

The operation of my device is as follows: A coin being dropped into the machine will

pass through the coin-slot 9 on to the end of balance 3 in juxtaposition to the magnet, whereupon one of two things will occur. If the coin is of the proper denomination—as, for instance, a cent—its weight will not be sufficient to depress the outer end of said balance 3, but will roll down between the plates 12 and 20 upon said incline balance to the point where said coin will come into contact with the member 4, as shown in dotted lines in Fig. 1, as indicated at X. At this point if the article inserted should be of pasteboard, aluminium, or other material of less weight than a cent the inertia of the plate 4 will not be overcome thereby, but said slug will rest in the position X of Fig. 1 until the plunger 1 is operated, whereupon the upwardly-projecting V-shaped apex 21 of the plunger 1 will impinge the forward shoulder 22 of balance 3, thereby tilting it upon its pivot 23, whereupon the inner end next the member 4 will be tilted, as shown by the dotted lines indicating said balance 3, whereupon the said slug will be elevated and will roll down the incline thus formed toward and into the slug-box 8. The magnet is merely of sufficient strength to prevent the scale from being tilted when a coin of proper weight falls upon it. It cannot, however, by itself support an iron or steel circular slug the edge of which contacts with the magnet, and therefore if the slug is above proper weight it will depress the scale and roll from the magnet, whether or not it is of metal which responds to the action of the magnet. If the slug is of iron or steel and of less weight than a proper coin, it will adhere to the magnet without depressing the scale 3; but as soon as the scale is tilted by the plunger 13 the slug will roll from the magnet, because, as hereinbefore stated, said magnet is not of sufficient strength to support a circular slug when its edge contacts with it. If a proper coin, as 24, is inserted, it will pass between the yoke 17, rear end of ejector 2, forward end of plunger 1, and the plate 12, thereby forming a filler between plunger 1 and ejector 2, so that when the rod 13 is actuated the said coin 24 will ride upon plate 11 until it is brought into coincidence with and falls through slot 10 into the money-box 7. This, however, will not occur until the shoulder 25 will have projected the lowermost package D from the chute B into the delivery-chute C. At the time when the lowermost package is being ejected from the chute B the next package D thereabove will fall upon the upper face 26 of ejector 2, there to remain until ejector 2 is retracted to its normal position, during which time said package will slide along the surface 26, and when ejector 2 has reached its normal position said package will rest upon the surface 27, as shown in full lines in Fig. 1. It will be evident that spring 16 is connected with the push-

rod 13, push-rod 13 connected with plunger 1, and plunger 1 connected with ejector 2 through the yoke 17 and pin 19, that all of said members will return together to their normal position, and by reason of the yoke-and-pin connection of 1 and 2 it is evident that when no coin has been inserted that the push-rod 13 may be freely operated without delivering a package from chute B, but that as soon as a coin of the proper denomination is in position that the machine is readily operable for the purpose intended.

Various changes in the detail construction and formation of the various operative parts of my improved device may be made, and the operation thereof may be varied to a greater or less extent to suit the contingency of various circumstances and still be within the spirit of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a vending-machine, a plunger, a balance-arm, means operated by the plunger for moving the balance-arm, and a magnet for retarding the movement of said arm.

2. In a vending-machine, a balance-arm, means separate therefrom for operating the arm, and a magnet for retarding the movement of the arm.

3. In a vending-machine, a balance-arm having a fixed pivot, a plunger adjacent thereto and separate therefrom, and adapted to tilt the arm, and a magnet for retarding the movement of the arm.

4. In a vending-machine, a combined coin-runway and balance-arm having a fixed pivot, a projection thereon, a slidable plunger separate from said arm and a projection upon the plunger adapted to contact with the projection on the arm and lift one end of the arm when the plunger is actuated.

5. In a vending-machine, a combined coin-runway and balance-arm normally inclined in one direction and having a fixed pivot, means for manually changing the inclination of the arm to discard an improper coin or slug deposited thereon and means for retarding the movement of the arm.

6. In a vending-machine, a combined coin-runway and balance-arm normally inclined in one direction, means for changing the inclination of the arm to discard an improper coin or slug deposited thereon, and a magnet for retarding the movement of the arm.

7. In a vending-machine, a gravity-shield, a combined coin-runway and balance-arm for directing a coin or slug against the shield, means for tilting the arm to direct a coin or slug away from the shield and a magnet for retarding the movement of the arm.

8. In a vending-machine, a combined run-way and balance-arm for directing a coin or slug toward one of its ends, a gravity-shield for holding improper coins or slugs upon the

arm and means for tilting the arm to discard said coins or slugs.

9. In a vending-machine, a combined runway and balance-arm for directing a coin or slug toward one of its ends, a gravity-shield for holding improper coins or slugs upon the arm, means for tilting the arm to discard said coins or slugs, and a magnet for retarding the movement of the arm.

10. In a vending-machine, a combined coin-runway and balance-arm adapted to be automatically tilted by an improper coin or slug and a magnet adapted to prevent the arm from being tilted by a proper coin.

11. In a vending-machine, a combined coin-runway and balance-arm adapted to be tilted to discard an improper coin or slug, and a magnet for retarding the movement of the arm.

12. In a vending-machine, a coin-receptacle, a slug-receptacle, slidable ejecting means, a rockable balance-arm, a magnet near the

same, a shield, and means whereby said balance is tilted to reject slugs stopped by said shield.

13. In a vending-machine, a combined balance-arm and coin-runway having a fixed pivot, an arm-retarding magnet, a movable slug-retaining shield adjacent the arm, means for rocking the arm, and receptacles located at each side of the pivot.

14. In a vending-machine, a combined runway and balance-arm for directing a coin or slug toward one of its ends, a gravity device for holding improper coins or slugs upon the arm, means for tilting the arm to discard said coins or slugs, and a device for retarding the movement of the arm.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

THEODORE J. SCHMIDT.

Witnesses:

EVA J. GLADIEUX,  
H. J. ROHVS.