

March 4, 1969

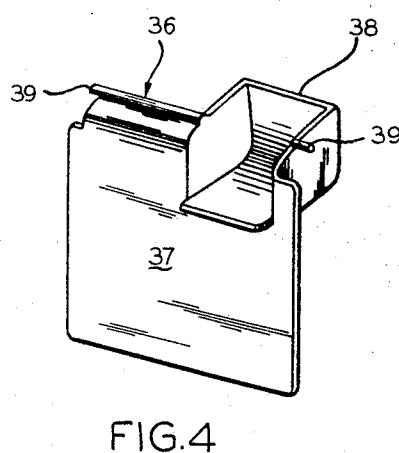
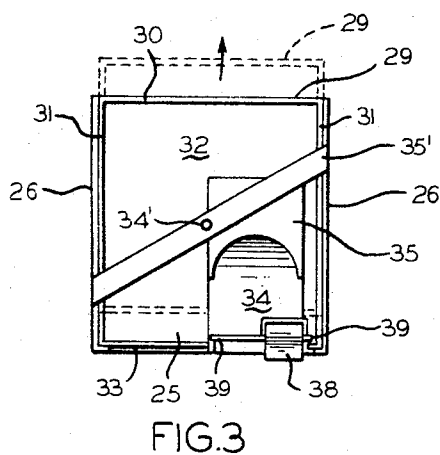
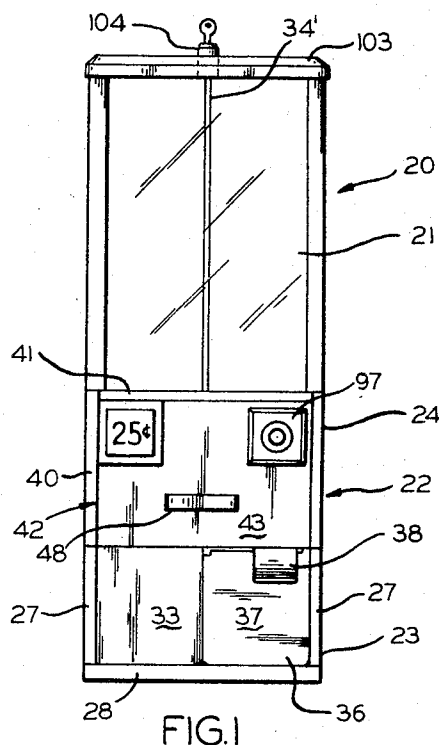
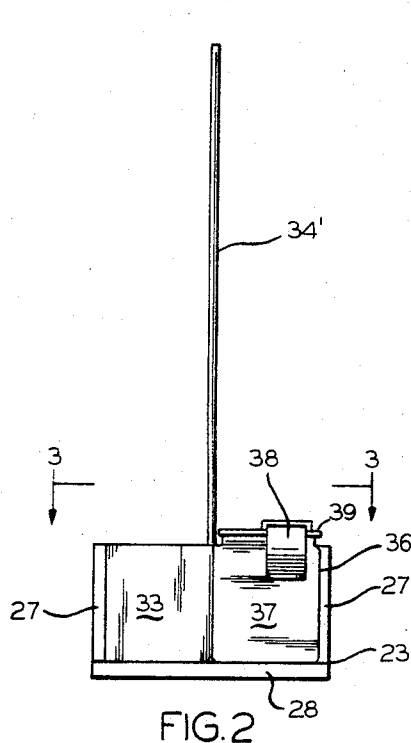
R. K. BOLEN

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MERCHANDISE VENDING MACHINE WITH COMBINATION ROTARY
COIN MECHANISM AND SLUG REJECTOR

Filed May 15, 1967

Sheet 1 of 4



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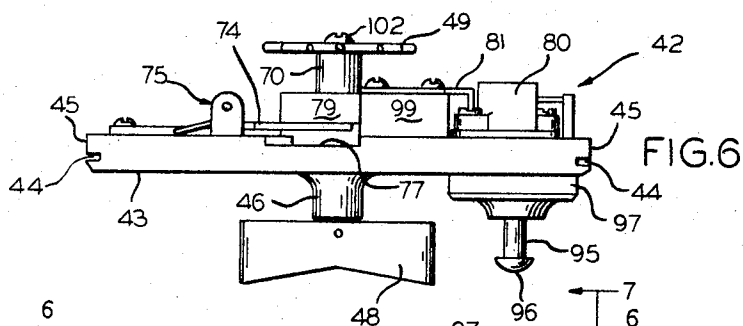


FIG.6

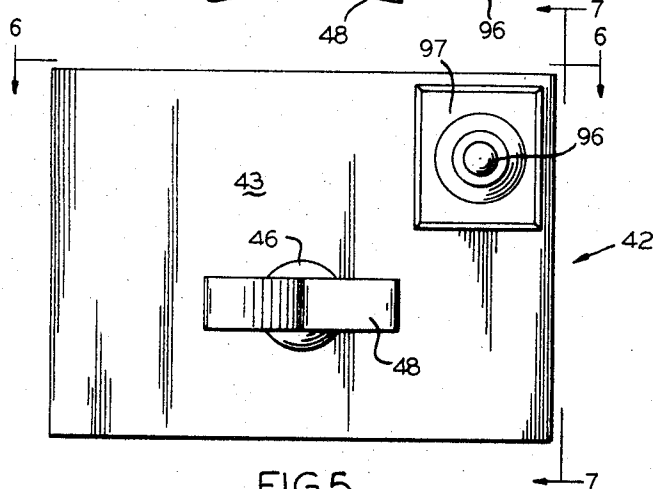


FIG.5

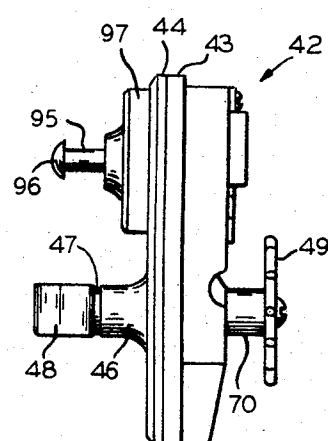


FIG. 7

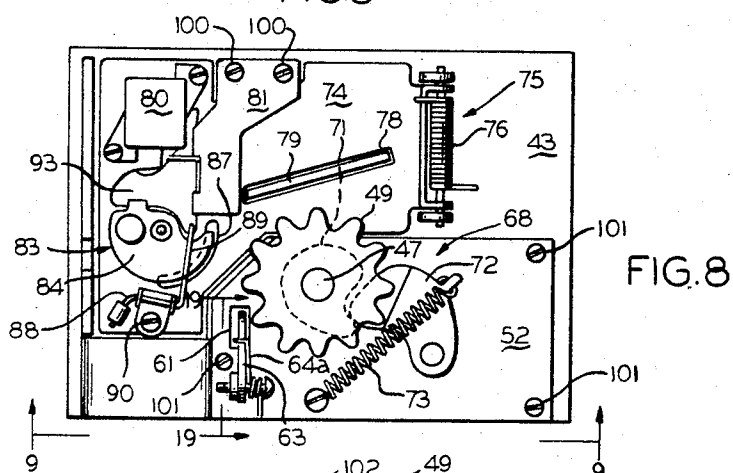


FIG. 8

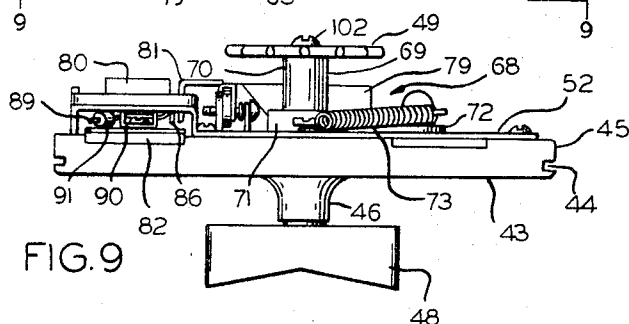


FIG. 9

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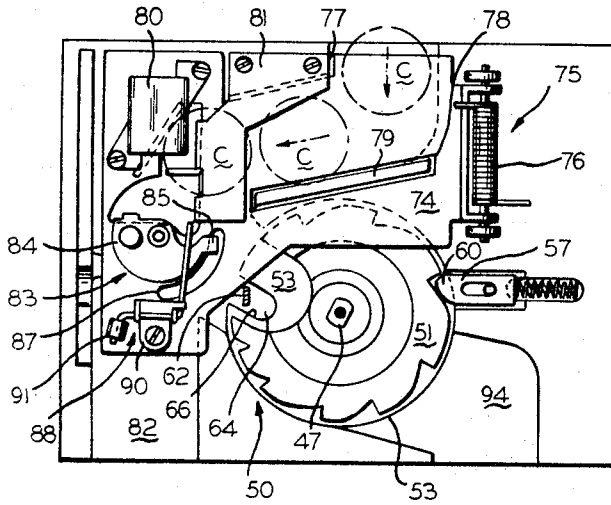


FIG. 10

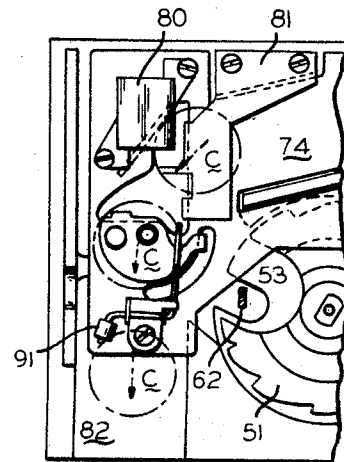


FIG. 11

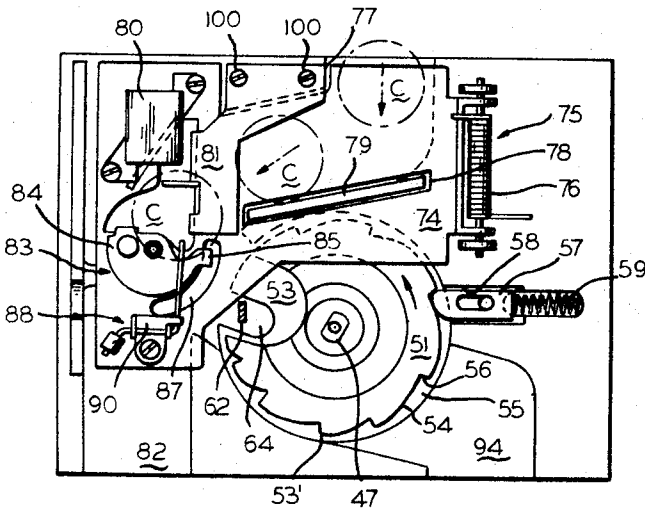


FIG. 12

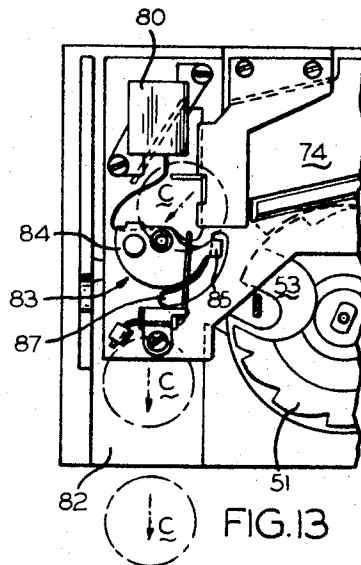


FIG. 13

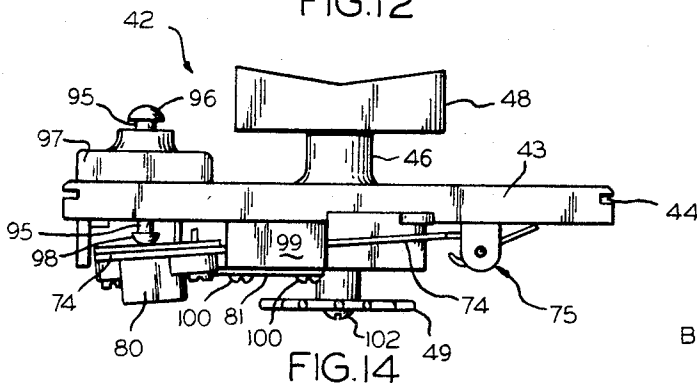


FIG. 14

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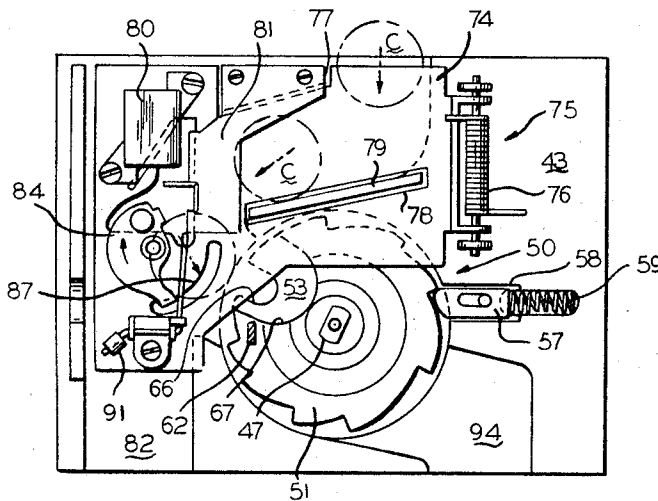


FIG.15

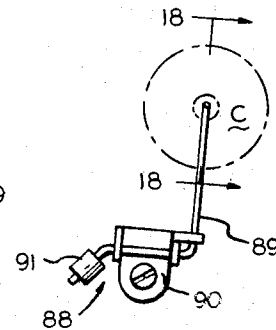


FIG.17

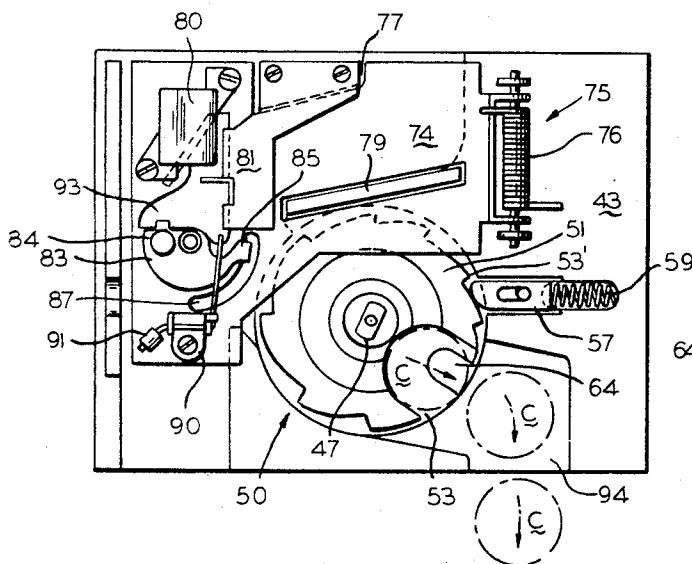


FIG.16

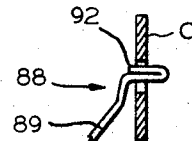


FIG.18

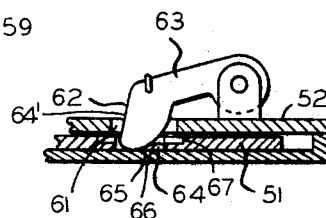


FIG.19

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MERCHANDISE VENDING MACHINE WITH COMBINATION ROTARY COIN MECHANISM AND SLUG REJECTOR

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Filed May 15, 1967, Ser. No. 638,391

U.S. Cl. 194-63

12 Claims

Int. Cl. G07f 11/00, 3/02

ABSTRACT OF THE DISCLOSURE

A bulk merchandise vending machine with a compact combination rotary coin mechanism and slug rejector which comprises part of the front of the machine, and a cash box with a built-in merchandise vending chute; the front of the cash box comprising the other part of the front of the machine.

Background of the invention

This invention relates generally to merchandise vending machines, coin mechanisms for such machines, and slug rejecting mechanisms for such machines. More particularly, the invention relates to improvements in bulk vending machines in which the cash box comprises the lower half of the body of the machine, and the upper half of the body of the machine includes a compact combination rotary coin mechanism and slug rejector removably positioned to form the front of the upper half of the body of the machine.

Heretofore, a major problem in vending machines, particularly bulk vending machines, was the frequency of service of the machine.

With the escalation of labor costs and servicing expenses in general, the problem of servicing has become evermore acute. Since the frequency of servicing is determined primarily by two factors, viz, the amount of merchandise the machine is capable of storing and dispensing, and the amount of coins the machine is capable of holding; it is obvious that to provide maximum merchandise and coin storage, the other mechanisms of the machine must be made as simple and compact as possible.

Another problem connected with merchandise vending machines is that because of inflation the price of merchandise has increased. Hence, the smaller coin machines, such as 1¢ and 5¢ machines, have become uneconomical or impractical so that even bulk vending machines are now designed or require coin mechanisms actuated by larger denomination coins. With the advent of such larger coins, the inducement to attempt to illegally obtain merchandise by the use of slugs or other means has become greater. Moreover, the intentional or accidental blocking or jamming of the machine by insertion of extraneous materials, such as paper, matches, gum, etc., has become increasingly prevalent. Consequently, it has become necessary to incorporate mechanisms for preventing the "play" of the machine by the use of unauthorized lower value coins, and/or slugs. However, because bulk merchandise vending machines are substantially smaller than machines used for dispensing larger, more costly and usually packaged items of merchandise, coin or slug rejectors of the type used in larger machines could not be adapted to smaller bulk vending machines even though attempts were made to miniaturize such mechanisms.

Summary of the invention

The vending machine of this invention comprises a base having a slidable cash box occupying substantially all of the space of said base; the front of the cash box comprising the front of the lower half of the body portion

of the machine. A merchandise chute is incorporated directly in the cash box communicating with the front of the machine and having a chute cover pivotally mounted in the front thereof. The chute cover has formed therein a coin return for rejected slugs or coins.

The upper half of the body of the machine is positioned below a relatively large merchandise storage member or globe with a merchandise dispensing wheel or mechanism positioned intermediately at the bottom of the merchandise globe. The front of the top half of the body comprises a removable plate with a novel combination rotary coin mechanism and slug rejector formed therein. Thus, a slug or coin rejecting mechanism is incorporated into the machine in combination, with the coin actuating mechanism so that the combination of the two mechanisms occupy little more space than the coin mechanism itself. Likewise the cash box is designed to provide maximum coin storage space while incorporating therein, as a part of the cover thereof, a merchandise chute, which heretofore occupied a part of the space used for either coin or merchandise storage.

Another feature of the invention is to so design, mount and position the slug rejecting mechanism on the body cover that the mechanism may be readily moved to afford access for cleaning out any extraneous materials which might be intentionally or inadvertently placed therein; as well as to afford means for readily servicing the mechanisms when necessary.

It is, therefore, an important object of this invention to provide a bulk vending machine having maximum merchandise and coin storage space, thereby minimizing the frequency of service of said machine.

Another important object is to afford a machine of the character described in which the actuating, dispensing and control mechanisms are of maximum compactness and consequently occupy a minimum of space in the machine.

Still another object of the invention is to provide a cash box occupying substantially the entire area of the body or pedestal of the machine and in which the front of the cash box serves as the front of the lower half of the body or pedestal of the machine.

Still a further object is to afford a bulk merchandise vending machine in which the merchandise chute is formed as a part of the cover of the cash box.

Yet another object of the machine is to provide a removable merchandise chute cover which may be pivotally hung in the front of the cash box to cover the chute and to afford ready access to the dispensed merchandise in the chute.

Yet a further object is to afford a coin return chute formed in the merchandise chute cover which, when operationally positioned, is aligned with the coin or slug rejecting passageway of the slug rejector mechanism.

Another object is to provide a combination rotary coin mechanism and slug rejector built into a plate which may be readily inserted in the front of the top half of the body or pedestal of the merchandise vending machine to serve as the front or cover for said portion of the body of the machine.

A further object is to provide in the coin rejector mechanism magnetic means for rejecting coins made of a magnetic material rather than the nonmagnetic materials of legal U.S. coins. A related object is to afford weighing means for rejecting coins, the weight or denomination of which is different from that for which the coin mechanism is designed. Still another related object is to provide means in the coin or slug rejector mechanism which will reject apertured slugs.

Yet a further object is to afford a coin mechanism which may be readily converted from one coin denomination to another. A related object is to design said coin

mechanism so that the coin wheel may be readily removed and exchanged for a coin wheel having a coin pocket sized for a different size or denomination of coin.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel features of construction, arrangement and a combination 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, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Brief description of the drawings

For the purpose of facilitating an understanding of my invention, I have illustrated in the accompanying drawings a preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, my invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawings in which the same characters of reference are employed to indicate corresponding or similar parts throughout the several figures of the drawings:

FIG. 1 is a front elevational view of a vending machine embodying the principles of this invention;

FIG. 2 is a similar view but with a portion of the machine removed;

FIG. 3 is a top plan view as viewed from the plane of line 3—3 in FIG. 2 of the drawings and showing in dotted outline the cash box moved to another position;

FIG. 4 is a perspective view of the merchandise chute cover;

FIG. 5 is an enlarged front elevational view of the front, top half, body cover of the machine, to the back of which the combination coin mechanism and slug rejector is formed;

FIG. 6 is a top plan view of the same taken on the plane of line 6—6 in FIG. 5 of the drawings and viewed in the direction indicated;

FIG. 7 is a side elevational view of the same taken on the plane of line 7—7 in FIG. 5 of the drawings and viewed in the direction indicated;

FIG. 8 is a rear elevational view of the same;

FIG. 9 is a bottom plan view as viewed from the plane of line 9—9 in FIG. 8 of the drawings;

FIG. 10 is a rear elevational view similar to FIG. 8 but with portions removed to facilitate illustration and showing the magnetic slug rejector member in operation, with the coin shown in dotted outline in successive positions;

FIG. 11 is a fragmentary view similar to FIG. 10 showing the coin being rejected after it has been acted upon by the magnetic member of the slug rejector mechanism;

FIG. 12 is a view similar to FIG. 10 showing the weight control member of the slug rejector in operation;

FIG. 13 is a fragmentary view similar to FIG. 11 and showing a coin or slug being ejected after it has been acted upon by the weight control member of the slug rejector;

FIG. 14 is a top plan view showing the coin rejector mechanism in its coin ejecting position;

FIG. 15 is a view similar to FIGS. 10 and 12 showing in dotted outline the path of a proper coin moving through the coin rejector and entering the pocket of the coin wheel;

FIG. 16 is a view similar to FIG. 15 and showing in dotted outline the coin dropping into the cash box after the coin wheel has moved through its merchandise dispensing cycle;

FIG. 17 is a fragmentary elevational view showing a

detail of construction of another member of the slug rejector;

FIG. 18 is an enlarged fragmentary side view of a portion of the member illustrated in FIG. 17 of the drawings; and

FIG. 19 is an enlarged fragmentary side view taken on the plane of line 19—19 in FIG. 8 of the drawings.

Globe and pedestal

Referring first to FIG. 1 of the drawings, reference numeral 20 indicates generally a bulk merchandise vending machine comprising a merchandise storage globe 21 and a pedestal indicated generally by reference numeral 22. The pedestal 22 comprises a base 23 and an upper body portion 24. Base 23 is formed with a bottom wall 25, side walls 26 (see FIG. 3), integrally formed front side flanges 27 and a bottom front flange 28. A cash box 29 is slidably positioned so that the same may be rearwardly withdrawn from the base, as shown in dotted outline in FIG. 3 of the drawings. The cash box may be sized to occupy substantially all of the space of the base and may be formed with a back wall 30, a pair of side walls, 31, 31, a bottom 32, a partial front wall 33 and a locking means (not shown) of any conventional type preferably positioned in the back wall 30.

A merchandise chute 34 is formed in the top of the cash box as shown in FIG. 3 of the drawings and comprises a part of the top wall of the same. The remaining portion of the top of the cash box may be either fully closed by a top wall, left open or partially closed by a top wall member such as 35 shown in FIG. 3 of the drawings. It should, of course, be appreciated that merchandise chute 34 occupies only a relatively small portion of the coin storage space of the cash box and that the chute is positioned in alignment with the merchandise ejecting portion of the merchandise dispensing mechanism (not shown).

To engage assemblage of the other members of the machine, a central assembly rod 34' is provided, the bottom end of which is secured to a crossbar 35' whose ends are immovably secured to the top of the side walls 26 of the base 23. It will be noted in FIG. 3, that the merchandise chute 34 opens to the front of the machine and the same may be protected by a merchandise chute cover indicated generally by reference numeral 36. The cover may comprise a front plate 37 with an integrally formed coin return chute 38 formed in the upper right-hand corner thereof. The coin return chute is positioned so that the same is in alignment with the terminal end of the coin or slug rejecting mechanism which will be disclosed as the description proceeds. To facilitate assembly of the chute cover in the pedestal, the same is formed with diametrically opposed and outwardly projecting pintles 39 adapted to drop into appropriate recesses formed in the walls of the cash box 29, as shown in FIG. 3 of the drawings, thereby pivotally suspending the cover 37 in the machine.

The upper body portion 24 comprises an open front enclosure having a back wall and side walls (not shown) with narrow front flanges 40, 40 integrally formed with the sides and a front top flange 41.

Combination coin mechanism and slug rejector

The front of the upper body portion is closed by a combination coin mechanism and slug rejector comprising the crux of the present invention and indicated generally by reference numeral 42 in the several figures of the drawings.

The aforesaid mechanism is actually built into a plate 43 formed with slots or recesses 44 in the sides 45, 45 thereof and extending for the full height of said plate. The marginal edges of the upper body front flanges 40, 40 are slidably accommodated in the slots 44, 44 thereby enabling the plate 43 to serve as the front closure member of the upper body portion 24 as shown in FIG. 1 of the drawings.

Protruding from the front of the plate 43 is a centrally apertured boss 46 and through said boss and plate is journaled a shaft 47. To the outer end of the shaft may be affixed an actuating handle 48 and affixed to the inner end thereof is a sprocket wheel 49. The sprocket wheel 49 is adapted to mesh with a complementary member of a merchandise wheel assembly (not shown but of any suitable well-known construction). Thus, the merchandise may be dispensed by twisting the handle 48 provided the shaft 47 is free to rotate. This occurs when the proper coin is inserted in the machine to release the rotary mechanism; said structure will be disclosed as the description proceeds.

Attention is now directed to FIGS. 10 through 16 inclusive wherein the coin wheel mechanism indicated generally by reference numeral 50 is disclosed and will now be described. This mechanism includes a coin wheel 51 mounted on the shaft 47 positioned in a recess formed in the rear surface of the plate 43 and covered by a removable cover plate 52. A coin receiving pocket 53 is formed in said wheel, opening to the periphery thereof; said pocket being sized to receive a particular coin such as a nickel, dime or quarter. The periphery of the coin wheel 51 is notched to form teeth 53' having arcuate portions 54 terminating in notches 55 defined by a straight side 56, the purpose of which will become apparent as the description proceeds.

Directing attention now to FIGS. 10, 12, 15 and 16, it will be noted that a pawl 57 is slidably positioned in a recess 58 and urged by a spring 59 into engagement with the teeth 53'. The forward end of the pawl 57 is formed in the shape of a point 60 which is complementary in shape with the notch 55 so that one surface of the pointed end of the pawl may engage the straight side 56 of the tooth 53'. It will be noted that the teeth are formed in spaced relationship about the periphery of the wheel 51. It will further be noted that because of the cooperation of the pawl 57 with the teeth 53', rotation of the wheel is permitted in only one direction, viz, counterclockwise as shown in the drawings (except for the short distance equivalent to the length of the arcuate portion 54 of the tooth 53'). When so rotated, the pointed end 60 of the pawl rides up on the arcuate portion 54 of the tooth 53' until it reaches the notch 55, whereupon the spring urges it into engagement with the tooth. Any attempt at that point to rotate the wheel in the opposite direction is resisted by the cooperation of the pawl with the notch.

Directing attention now to FIGS. 8, 15, 16 and 19, it will be noted that the plate 52 is formed with a cutout or slot 61 through which the end 62 of a pawl 63 may protrude inwardly. A spring 64a urges the pawl inwardly towards the coin wheel 51. The coin pocket 53 is formed with a slot 64 formed in its bottom wall so that the pawl end 62 normally is seated therein as shown in FIGS. 10 through 13. It will be further noted in FIG. 19 of the drawings that pawl end 62 is formed with a leading flat surface 64' and a trailing arcuate surface 65. Thus, when the coin wheel 51 is rotated in a counterclockwise direction, the straight edge 64' is brought into abutment with the trailing edge 66 of the slot 64 and thereby stops or prevents further rotation of the wheel.

In order for merchandise to be dispensed, the wheel must be rotated through a full 360° arc. This is accomplished as shown in FIGS. 15 and 16 when a coin C enters the pocket 53. The wheel is rotated in clockwise direction from the position shown in FIG. 13 to the position shown in FIG. 15 so that the pocket 53 is in the proper position to receive the coin. Such rotation is possible because of the pawl end trailing arcuate surface 65 which permits the pawl end to ride up over the pocket edge 67. It will further be noted in FIG. 15 of the drawings that in said position the pawl end 62 is positioned adjacent the pocket 53.

The depth of the pocket 53 is such that when the

proper coin is positioned therein, the top surface of said coin is flush with the top surface of the coin wheel 51. Therefore, when the wheel is rotated counterclockwise in the merchandise dispensing operation, the coin pocket is moved beneath the tip of the pawl but the coin in the pocket filling the same prevents or blocks the pawl tip from entering the coin pocket slot 64 which, as indicated above, would have prevented further rotation of the wheel. Thus, the pawl rides over the coin and the top surface of the wheel as the wheel is rotated therebelow.

To insure positive action and prevent rocking or excessive play of the machine, a pawl and cam spring-actuated subassembly indicated generally by reference numeral 68 in FIGS. 8 and 9, is provided. The same comprises a cam member 69 which in turn comprises a cylindrical sleeve 70 with an irregular shaped integrally formed cam portion 71 mounted on the coin wheel shaft 47. A pawl 72 is mounted adjacent thereto and urged by a strongly rated coil spring 73 into firm engagement with the cam member 71.

Slug rejector mechanism

The novel coin or slug rejector portion of the mechanism as shown in FIGS. 6 through 16 of the drawings will now be described in some detail. It should first be noted that the entire such mechanism is not only compact and associated directly with the rotary coin mechanism, but is also built into and assembled on a mounting plate 74 mounted on the back of the coin mechanism plate 43. The mounting plate 74 is hingedly affixed to the mechanism plate 43 at one edge only by any suitable pivot or hinge means such as that designated generally by reference numeral 75 in the several figures of the drawings. A coil spring 76 urges the mounting plate 74 towards the mechanism plate 43. The purpose and function of the afordescribed structure will become apparent as the description proceeds.

It will be noted in FIG. 6 of the drawings that the coin mechanism plate 43 is formed with a recess or slot 77. This comprises the slot through which the coin is inserted for actuating the mechanism. It will further be noted that the plate 74 is provided with an inclined slot 78, and protruding therethrough from the back of the plate 43 is a coin runway strip 79. As shown in the several figures of the drawings (see FIGS. 10, 12 and 15), when the coin C is dropped through the slot 77, it drops down until it hits strip 79 whereupon it rolls down the incline in the direction shown by arrows towards the first element of the slug rejector mechanism.

The first slug rejector element comprises a magnet 80 mounted adjacent a guide bracket 81. If the coin C is a magnetic slug rather than a non-magnetic coin, it will be attracted to and withheld from passage to the coin wheel by said magnet as shown in FIG. 10 of the drawings. The slug may then be ejected through a slug ejection passage or slot 82 as shown in FIG. 11 of the drawings. The ejection means will be disclosed as the description proceeds.

The next slug rejection element comprises a balance or weighing means 83. The weighing means 83 comprises a pivotally-mounted, counterweighted balance member or wheel 84 formed with an arm 85 and inwardly bent finger 86 protruding inwardly through an arcuate slot 87 formed in the mounting plate 74, all as shown in the several figures of the drawings (finger 86 being shown in FIG. 9 of the drawings).

In operation, when a coin of insufficient weight or a lightweight slug, such as for example a plastic disc or button, is inserted into the mechanism, it rolls down the coin strip 79, passes by the magnetic slug rejector element 80, and drops down onto the balance member or wheel 84. The finger 86 of the arm 85 blocks further passage of the slug and prevents it from dropping into the coin wheel pocket 53 as shown in FIG. 12 of the drawings. However, if the coin is of sufficient weight, it causes the balance wheel 84 to pivot about its axis in a clockwise

direction, thereby moving the arm and finger 85, 86 down through the arcuate path of the slot 87, thereby unblocking the passageway and permitting the coin C to drop into the coin pocket 53 of the wheel 51 as shown in FIG. 15 of the drawings.

The next slug rejecting element of the device comprises a slug pawl 88 (FIGS. 10-18) adapted to prevent the passage of apertured slugs into the coin pocket 53 of the coin wheel 51. The slug pawl 88 comprises a bent wire member 89 mounted by means of a bracket 90 to the mounting plate 74. The bottom end of the wire member 89 may have a counterweight 91 affixed thereto and the upper end may be bent inwardly to form a pawl finger 92 (see FIG. 18) extending through a cutout portion or slot 93 formed in the mounting plate 74. The finger 92 is positioned in the path of the coin so that if the coin is formed with holes or apertures, the finger engages therein and prevents the passage of the coin into the coin wheel pocket 53.

If the coin is of the proper size and value, it will, of course, pass all of the slug rejecting elements, enter the coin pocket 53, and be rotated with the coin wheel 51 until it reaches the position shown in FIG. 16, whereupon it will drop out of the pocket 53 and into a coin chute 94 formed in the inner surface of the mechanism plate 43. From there, of course, the coin drops into the cash box 29. However, if the coin is an improper one or actually comprises a slug or similar device, the same will be caught and held from further passage by one or the other of the above-described slug-rejecting elements. In such a case, simple means is provided for ejecting the slug through the slug chute 82 for returning through the coin return chute 38.

The aforementioned means comprises a simple plunger 95 slidably positioned so that the head 96 thereof protrudes outwardly through a boss 97 formed on the outer surface of the mechanism plate 43. The inner end of the plunger likewise has a head 98 formed thereon and this head abuts the inner surface of the mounting plate 74 on the side of said plate opposite that of the hinged means 75. Thus, when it is desired to clear the mechanism of any slugs or illegal coins held by any of the slug rejecting elements, plunger 95 is pushed in so that the head 98 abuts the mounting plate 74; canting it outwardly as shown in FIG. 14 of the drawings.

The outward movement of the plate 74 is limited by the guide bracket 81, which is mounted in spaced relationship with the rear face of the plate 43 by the height of a bracket boss 99 integrally formed on said plate. The bracket 81 is affixed to the boss 99 by merely two screws such as 100 so that said bracket may be readily removed by the mere removal of said screws.

The removal of the bracket 81 enables the mounting plate to be swung further outward in the event it is necessary to do so to clear the mechanism of any extraneous materials, such as gum, paper, match sticks and the like, which might inadvertently or mischievously have been placed therein. Likewise, the occasional servicing necessary for the various slug ejecting means or the coin wheel may be accomplished by merely swinging the mounting plate out to its outermost position. Such servicing or manipulation might be occasioned when it is desired to change the coin and slug rejecting mechanism to one for accommodating coins of another denomination. This may be readily accomplished by removing the retaining screws 101, three of which are used to hold cover plate 52 in position (see FIG. 8). Removal of the cover plate 52 must first be preceded by removal of the ratchet wheel 49 and the pawl and cam assembly 68, but this is readily accomplished by merely removing the sprocket bolt 102 shown in FIGS. 6 and 9 of the drawings. Removal of said bolt and screws then permits the cover plate 52 to be removed thereby exposing the coin wheel 51 which then may be lifted from the shaft 47 and re-

placed with another wheel having a coin pocket of another coin denomination size.

The merchandise globe 21 may be assembled on the pedestal 22 with the assembly rod 34' protruding there-through, as shown in FIG. 1 of the drawings. A centrally apertured cover 103 may be seated on the top marginal edges of the globe 21 to close the same, and locking means such as key-holed cylinder 104 may be used to lock the cover on the globe.

It is believed that my invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide variation within the purview of my invention as defined in the appended claims.

What I claim and desire to secure by Letters Patent of the United States is:

1. A coin controlled merchandise vending machine including a merchandise storage member 21, a housing supporting said storage member, a merchandise dispensing mechanism, a merchandise chute 34 and a cash box 29, all positioned in said housing;
 - a mechanism plate 43 having a coin-receiving slot grooved in said plate and a coin-runway strip projecting inwardly from the inner surface of said plate to form a runway for a coin;
 - a slug-rejector mechanism 42 mounted on said plate;
 - a rotary coin-wheel 51 mounted on said plate in a recess formed therein, said wheel having a pocket 53 formed therein;
 - said plate having a slug-ejection passage 82 and a coin-chute 94 grooved in the inner surface thereof;
 - means extending from the front of plate 43 connecting the said merchandise mechanism with said coin-wheel;
 - said mechanism plate positioned to form a closure member for at least a part of said housing.
2. The vending machine of claim 1, wherein:
 - said housing includes an open-front upper body portion 24 formed with front side-flanges 27;
 - said mechanism plate having recesses 44 in the sides thereof adapted to accommodate therein the marginal edges of said front side-flanges for slidably closing said upper body portion.
3. The vending machine of claim 1, wherein:
 - said merchandise storage member comprises a bulk merchandise globe;
 - said housing includes a pedestal 22 having a base 23; and
 - said cash box being slidably positioned in said base so that the front of the cash box comprises the front of the base, and said cash box being sized to occupy substantially all of the space in said base.
4. The vending machine of claim 3, wherein:
 - said merchandise chute is positioned to form a part of the top wall of the cash box and opens to the front of the base.
5. The vending machine of claim 4, wherein:
 - said chute is closed by a pivotally mounted chute cover 36 having a coin return chute 38 formed therein for returning coins and slugs rejected by said slug rejector mechanism.
6. The vending machine of claim 1, wherein:
 - said rotary coin mechanism includes a shaft 47 journaled through said mechanism plate with a handle mounted on the outer end thereof, a sprocket wheel 49 mounted on the inner end thereof and adapted to cooperate with said merchandise dispensing mechanism;
 - said coin wheel 51 removably mounted intermediately on said shaft adjacent the rear surface of said mechanism plate; and

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a plurality of spring-urged pawls mounted to control and limit the rotation of said coin wheel and sprocket wheel and thereby the dispensing of merchandise from the machine.

7. The vending machine of claim 6, wherein:

said coin wheel pocket has a bottom wall with a slot 5
64 formed therein, one of said pawls 63 having its end 62 normally seated in said slot to prevent substantial rotation of the coin wheel in at least one direction, said pawl being prevented from seating in said slot when a coin of proper diameter and thickness is positioned in said coin pocket whereby the coin wheel may be rotated with the coin moving under the pawl which rides thereover.

8. The vending machine of claim 1, wherein:

a mounting plate 74 is hingedly affixed to the rear surface of said mechanism plate;

said slug rejector mechanism comprising a plurality of slug and coin rejecting elements mounted on said mounting plate, said rejecting elements preventing the passage of coins and slugs to the rotary coin mechanism; and

means for ejecting said coins and slugs.

9. The vending machine of claim 8 wherein:

the mechanism plate and mounting plate cooperate to afford said coin-receiving slot and passageway therebetween;

and said last mentioned means including a plunger protruding from the front of said mechanism plate, said plunger movable into abutment with said mounting plate to swing said mounting plate away from the mechanism plate thereby releasing said coins and slugs for passage through said slug ejection passageway.

10. The vending machine of claim 8, wherein:

said rejecting elements include a magnet 80, weighing means 83, and a slug pawl 88 adapted to prevent the passage of apertured coins and slugs.

11. The vending machine of claim 8 wherein:

a bracket 81 is removably mounted in spaced relation-

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ship with said mounting plate to limit the length of the arc through which said mounting plate may normally be moved away from the mechanism plate, said bracket being readily removable to enable the mounting plate to be swung further away from the mechanism plate, thereby facilitating service of the mechanism and means for removal of any extraneous material which may have been inserted therein.

12. The vending machine of claim 8, wherein:

one of said rejecting elements comprises a pivotally-mounted counter-weighted balance wheel having an arm and an inwardly bent finger;

said mounting plate having an arcuate slot formed therein, said finger extending through said slot toward said mechanism plate, said balance wheel adapted to pivot in an arcuate path when a coin of proper weight drops thereon and moving therewith said finger out of the path of said coin, whereby said coin drops into engagement with said coin mechanism thereby permitting actuation of the same and the dispensing of merchandise from the machine.

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U.S. Cl. X.R.

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