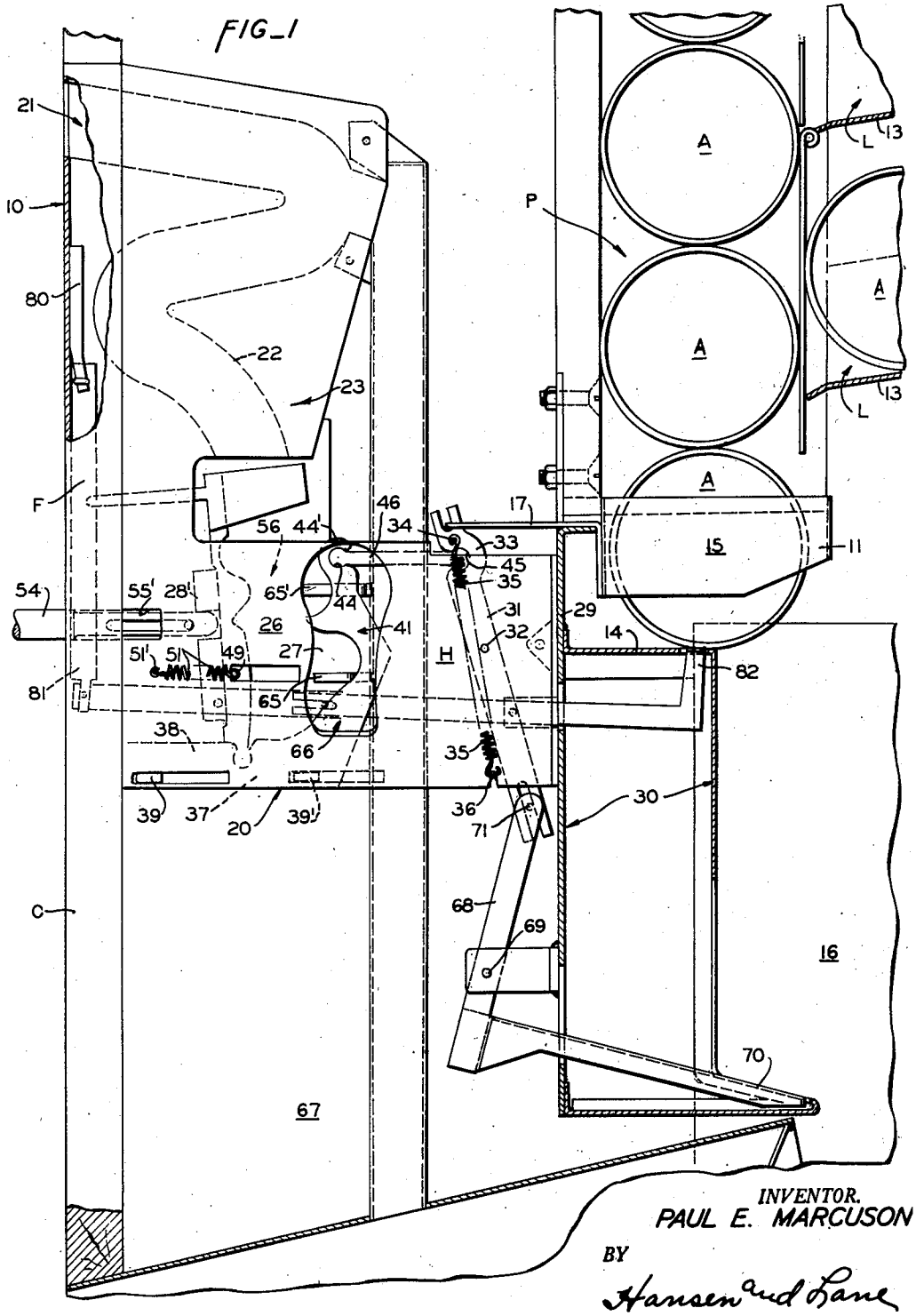
Sept. 17, 1957 P. E. MARCUSON 2,806,573

COIN CONTROL MECHANISM FOR VENDING MACHINES

Filed Sept. 7, 1955 3 Sheets-Sheet 1

FIG_1



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COIN CONTROL MECHANISM FOR VENDING MACHINES

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FIG_2

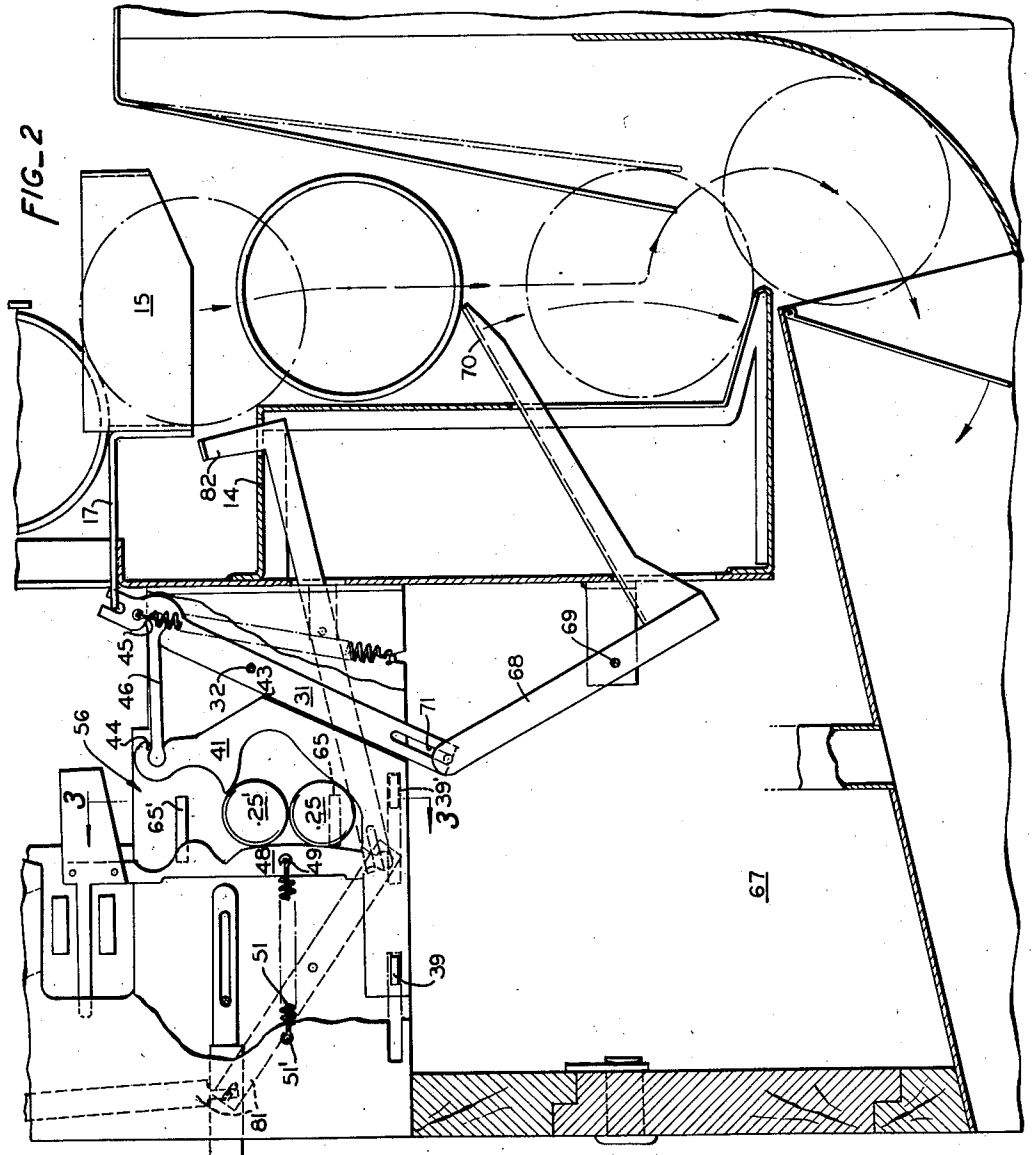
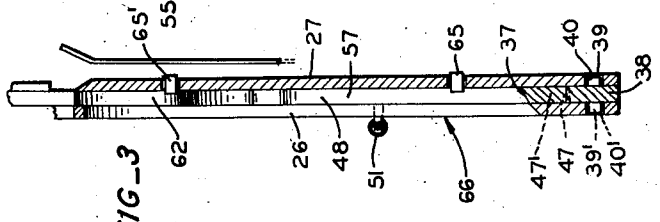


FIG_3



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COIN CONTROL MECHANISM FOR VENDING MACHINES

Filed Sept. 7, 1955 3 Sheets-Sheet 3

FIG_4

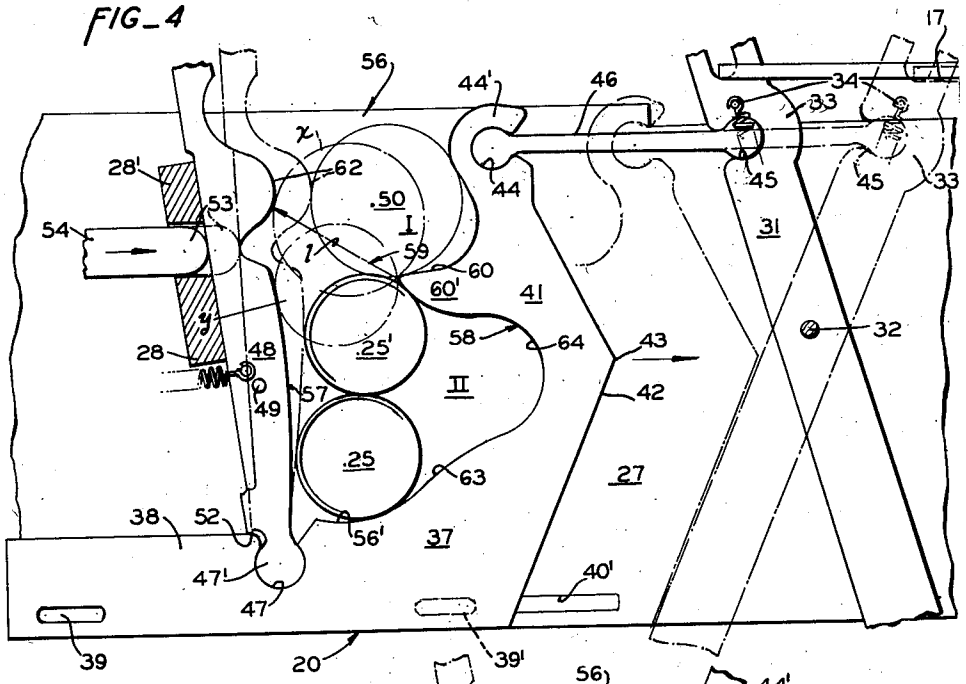
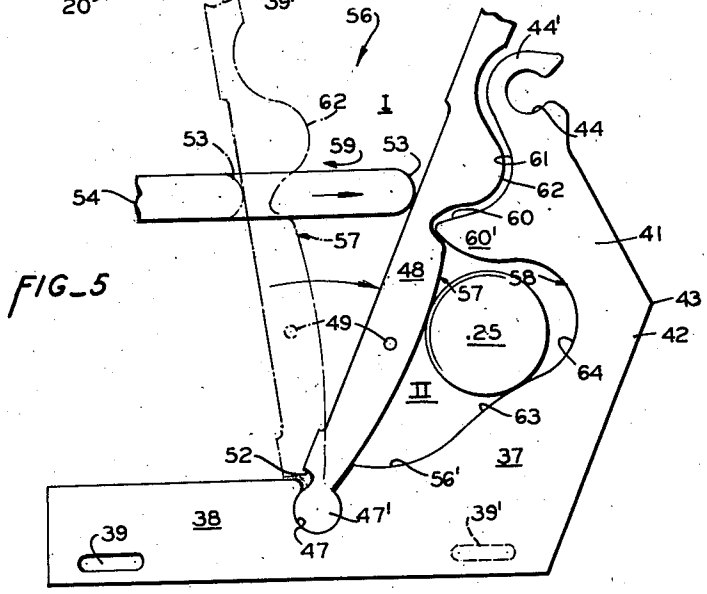


FIG_5



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United States Patent Office 2,806,573 Patented Sept. 17, 1957

2,806,573

COIN CONTROL MECHANISM FOR VENDING MACHINES

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Application September 7, 1955, Serial No. 532,864

7 Claims. (Cl. 194—75)

This invention relates to coin controlled dispensing machines and more particularly to a coin actuated mechanism therefor. More specifically the invention herein entails the provision of a coin actuated mechanism adapted to be coupled for operation by the presence of a single coin of large denomination or a plurality of coins of lesser denomination.

Briefly stated the invention contemplates a vending machine in which the presence of either a fifty cent piece or two twenty-five cent pieces is required in the coin control mechanism in order to couple the same for operation.

In connection with the foregoing object is a further object to provide a novel coin carriage and toggle operated mechanism associated therewith for positively actuating article discharge means when proper coin or coins are present in the coin control. This entails a coin carriage having a coin receiving pocket provided with a zone for a single coin and another zone for several coins either of which must be filled to the right value before coupling operation can occur.

These and other objects and advantages of the present invention will become apparent in the following description in the light of the drawings in which:

Fig. 1 is a vertical section through a vending machine and coin control mechanism embodying the present invention.

Fig. 2 is a detail similar to that of Fig. 1 with parts thereof broken away for purposes of disclosure and other parts in changed position.

Fig. 3 is a transverse vertical section through a portion of the coin control in Fig. 2 taken substantially along line 3—3 thereof.

Fig. 4 is an enlarged detail view of the coin coupler of the coin control shown in Figs. 1 to 3.

Fig. 5 is a view similar to Fig. 4 with parts thereof in a different position.

Referring to the drawings 10 indicates a vending machine with cabinet C which encloses a stack of vendable articles A in the form of cylindrical containers arranged for gravitation through a feed passage P toward a coin controlled gate carriage 11 at the lower end of such passage. As seen in Fig. 1 several lateral passages L have additional articles stored therein on inclined runways 13 for admittance into the main feed passage P when the stack of articles therein diminishes to the level of each successive lateral runway.

The lower end of passage P terminates in a ledge 14 extending at least halfway across the bottom of the passage so that the lowermost article A rests on the ledge 14. The coin controlled carriage gate 11 comprises a bottomless frame 15 through which the lowermost article can pass except for the ledge 14. This carriage gate 11 is arranged for sliding movement to and fro beneath the passage P so as to shift the lowermost article from supported position on the ledge 14 to the upper end of a discharge passage 16 as best illustrated in Fig. 2. It will

there be noted that the carriage gate 11 includes a push plate 17 connected to the fore wall of the frame 15 and guided for sliding movement therewith. This push plate becomes a temporary ledge for the next lowest article while the lowermost one is being discharged. That is to say, while the carriage gate 11 is shifted to its rearmost or article discharging position the push plate 17 supports the next lowermost article until the carriage gate 11 returns to normal (foremost) position, whereupon the next lowermost article drops into the frame 15 and onto the ledge 14 for support thereby.

The coin controlled carriage gate 11 is operated with and by the coin control mechanism 20 now to be explained. The coin control mechanism 20 is situated between the article feed passage and the front wall F of the cabinet C for ready receipt of a coin or coins deposited in a coin slot 21.

The coin slot 21 is formed through the front wall F of the cabinet C and communicates with a coin passage or runway 22 associated with or passing through testing or detector means 23 by which spurious coins or slugs are separated from valid coins by which the coin control is intended to be operated. For purposes of the present invention the detector means 23 may be of any well known design to serve the purpose.

The coin control mechanism 20 embodied in the present invention comprises a housing H consisting of side plates 26—27 separated from each other by suitable spacers 28 to receive a coin between them. In the present disclosure the coin control mechanism is constructed to receive and handle either a fifty cent piece or two twenty-five cent pieces. Consequently, the spacing of plates 26—27 from each other is such as to receive a silver half dollar between them. These plates 26—27 and their separators 28 as shown comprise a housing H secured in the cabinet C preferably to the front wall F. The rearmost edge of the housing H ends adjacent the fore wall 29 of the supporting structure 30 for article passage P.

Between the rearmost portions of the side plates 26—27 is an over-center or toggle lever 31 pivotally mounted, midway its ends, on a pin 32 having its ends journaled in bores provided in the side plates 26—27. The upper end 33 of lever 31 extends above the upper edges of plates 26—27, is bifurcated, and has its rearmost tine inserted through a slot formed through the fore end of the push plate 17 hereinbefore mentioned. Thus it will be seen that the push plate 17 and frame 15 of the gate carriage 11 reciprocate to and fro responsive to rocking motion of toggle lever 31 between its two extreme positions. Adjacent the birfurcated upper end 31 of lever 31 is a pin 34 having one end of a tension spring 35 secured thereto. The opposite end of spring 35 is connected to an upturned tab 36 on plate 26 of the stationary housing H. This tab 36 is in vertical alignment with the pin 32 about which lever 31 rocks so that the lever 31 snaps into either of its two extreme positions by reason of the toggle action of the spring 35 and pin 34 at the upper end of lever 31.

Also arranged between side plates 26—27 is a coin carriage 37. This coin carriage 37 comprises a foot portion 38 of substantially half the length of the housing H and normally disposed in the fore half thereof. A pair of lugs 39—39′ extend laterally from foot portion 38 into guideways 40 and 40′ formed in side plates 26—27, respectively. These guideways 40—40′ serve to guide the lugs 39—39′ and to support the coin carriage 37 for sliding movement to and fro within the housing H.

The aft end of the coin carriage 37 comprises a vertical arm 41 formed integrally with the foot portion 38. The aft edge 42 of arm 41 is formed by two angular faces having their apex 43 disposed in a plane horizontally

opposite the fulcrum point for toggle lever 31 as provided by pin 32. The upper end 44' of arm 41 is provided with a partially annular socket 44 and a similar socket 45 is formed on the fore face of the lever 31 in a horizontal plane opposite the upper end of arm 41. These sockets 44 and 45 receive ball-like ends of a link 46 for connecting the coin carriage 37 to the upper end of the toggle lever 31.

Substantially midway between its fore and aft ends the foot portion 38 of coin carriage 37 has a partially annular socket 47 formed in its upper edge to receive the ball-like lower end 47' of a manually operable lever 48. This lever 48 has a lateral pin 49 extending therefrom and through a horizontal slot 49' formed in side plate 26. A tension spring 51 having one of its ends connected to pin 49 and its opposite end anchored to a lug 51' extending from the outer face of the plate 26 serves to maintain lever 48 in its normal or foremost position. To this end part 28' of the spacers 28 provide a stop for the lever 48 for maintaining the latter in a substantially vertical position.

It should here be noted that the fore edge of lever 48 has a shoulder 52 formed just ahead of the neck of the ball-like lower end thereof. This shoulder 52 bears against the upper edge of the foot portion 38 to prevent the lever 48 from rocking beyond its normal angle of repose as when it is in normal position abutting the stop 28'. Thus it will be noted that the tension spring 51 not only serves to yieldably urge lever 48 toward its normal position but also to draw the coin carriage 37 toward its foremost position relative to the guideways 40—40' in the housing 25. Note also, however, that the toggle spring 35 acting upon toggle lever 31 also tends to urge the coin carriage toward its foremost position when the upper end of lever 31 passes over center of the pin 32 about which the toggle lever rocks. It will therefore be apparent that when the upper end 33 of toggle lever 31 is in its foremost position so is the coin carriage 37 in its foremost position.

The lever 48 has its fore edge disposed for abutment by the aft end 53 of a plunger 54. This plunger 54 is guided for sliding movement in a bushing 55' mounted in the front wall F of the cabinet C and has its fore end protruding from the cabinet C to provide a push button adapted for manual operation. The push button or plunger 54 is spring loaded for normally extending the fore end 55 thereof beyond the front wall F of the cabinet. In this manner the plunger 54 is retracted to normal position independent of the operation of the lever 48.

Upon application of pressure against the push button end 55 of plunger 54 its inner end 53 engages the lever 48 to urge the latter in an aft direction. However, in the absence of a coin or coins between the upright arm 41 of coin carriage 37 and the lever 48 the latter will merely rock about its ball-like lower end 47', see Fig. 5. Consequently, no movement occurs in the coin carriage since it remains in its foremost position by action of the toggle spring and lever 31.

In order to effect actuation of the coin carriage 37 in accordance with the present invention it is necessary that the plunger actuated lever 48 be coupled to the vertical arm 41 of the coin carriage. This is accomplished by the disposition of a proper coin or coins between these two elements by reason of the shape of the opposing faces of the latter as will now be explained.

The coupling aspects of the lever 48 and vertical arm 41 is afforded by the pocket 56 formed between them. This pocket 56 as illustrated in Figs. 4 and 5 consists of two levels I and II. Level II which is lowermost in the coin carriage 37 is for handling two coins each of one-half the value of a single coin intended for disposition in level I. Level I is uppermost in the pocket 56 because the single coin of larger denomination is of greater diameter than the two coins intended to be received in the lower level II of the pocket.

As best seen in Fig. 4, when the lever 48 is in its foremost position and vertical arm 41 and foot portion 38 are in normal or retracted position, the pocket 56 formed thereby is relatively V-shaped. With the parts thus disposed, the open upper end of the V-shaped pocket 56 is in register with the discharge end of the coin detector means 23. Consequently, all coins which are cleared for discharge from the lower end of the detector means will fall by gravity into the pocket 56.

As previously stated, the present disclosure illustrates the device as intended for operation by either one fifty cent piece .50 (one-half dollar) or two twenty-five cent pieces .25 and .25' (two quarter dollars). The fifty cent piece .50, being of larger diameter than either of the two quarter dollars pieces, will become wedged in the upper end of the V-shaped pocket 56. In this connection both the aft face 57 of the lever 48 and fore face 58 of vertical arm 41 is configurated to provide a restrictive passage 59 in the upper end of the pocket 56.

The restrictive passage 59 includes a ledge 60 formed on a projection 60' from the fore face 58 of arm 41. Between this ledge 60 and the socketed upper end 44' of arm 41 the fore face 58 is recessed as at 61 on an arc of lesser radius than the radius of a coin .50 of fifty cent denomination. The restrictive passage 59 also includes a dome-like formation 62 formed on the after face 57 of lever 48. This dome 62 is configurated to register with and conform to the recess 61 so as to fit into the same as shown in Fig. 5. That is to say, when no coin is present in the pocket 56 the lever 48 will rock into the position as shown in Fig. 5, upon full inward stroke of the plunger 54, and no rearward movement of the coin carriage 37 will occur.

When a valid fifty cent coin .50 is discharged into the upper end of the pocket 56 such coin will become lodged above the restrictive passage 59 as at X in Fig. 4. In other words, the periphery of the coin .50 rests upon the tip of ledge 60 and against the dome 62. It should here be noted that an imaginary line *l* struck across the passage 59, i. e., the points of contact of the coin .50 with the ledge 60 and dome 62 is of lesser distance than the diameter of coin .50. Thus it will be understood why the coin .50 becomes lodged above the restrictive passage. More important, however, it will be noted that the tip of the ledge 60 is lower than the point at which the coin .50 tangently engages the dome 62. Consequently upon manual depression of the plunger 54 and resulting rearward rocking of the lever 48 (to dot-dash position Fig. 4) the newly deposited coin .50 will ride up the ledge 60 until the periphery of coin .50 engages the rounded upper end 44' of arm 41.

The coin .50 now engages the fore face 58 of arm 41 at two points while being engaged at one point, substantially midway between such two points, by the dome 62. At this juncture it should be remembered that the lower end 47' of lever 48 is connected to the foot portion 38 of the coin carriage 37 and therefore the lever 48, coin .50 and coin carriage 37 become as a solid block upon continued rearward pressure against the plunger 54.

From the foregoing it will be appreciated that the coin .50 acts as a coupling agent for effecting rearward movement of the coin carriage 37 during the balance of the full stroke of the plunger 54 against the lever 48. As previously stated, in the absence of the coin .50 the lever 48 would merely rock up to but not aginst the vertical arm 41 and no operation of the coin carriage would occur.

When a valid twenty-five cent piece .25 is discharged from the detector means 23 into the V-shaped pocket 56 such coin will pass through the restrictive passage 59. It should here be noted that while the restrictive passage 59 (line *l*) is of lesser dimension than the diameter of a fifty cent coin it is of greater dimension than the diameter of a twenty-five cent coin. Consequently valid twenty-five cent pieces will fall into the lower zone of the V-shaped pocket 56 as illustrated by the coin Y in Fig. 4.

The base of the V-shaped pocket **56** includes a concave seat **56'** on the upper edge of the foot portion **38** and an upwardly tending curved surface **63**. This curved surface **63** merges with the fore edge **58** of the vertical arm **41** and terminates in a recess **64** just below the projection **60'** upon which the ledge **60** is formed. The recess **64** is scribed on a radius comparable to that of a twenty-five cent piece so that if only one quarter **.25** is disposed in the lower zone of the V-shaped pocket **56** such single quarter will be forced up the curved surface **63** into recess **64** upon rearward swinging movement of the lever **48**. When the lever **48** returns to normal or retracted position by action of its return spring **51** the single quarter **.25** will roll back down the inclined or curved surface **63** and remain in the base of the pocket **56**.

From the foregoing it will be seen that if only one quarter **.25** is in the pocket **56** no operation of the coin carriage **37** can occur. However, when the second twenty-five cent piece **.25'** enters the lower zone of the pocket **56** it will stand upon the first quarter **.25**, see Fig. 4. Note here that the space between the periphery of coin **.25** and the bottom edge of the projection **60'** is of slightly lesser dimension than the diameter of a twenty-five cent piece, i. e., one of the coins intended for deposit in the lower zone of the pocket **56**. Consequently the two quarters **.25** and **.25'** in the lower zone of pocket **56** stand one upon the other between the opposing faces **57** and **58** of the lever **48** and vertical arm **41**, respectively. Moreover, these two coins **.25** and **.25'** bridge the gap between the base **56'** of the pocket **56** and the underside of the projection **60'**. In this connection note in Fig. 4 that in the lower region of the pocket **56** the aft edge **57** of the lever **48** has a slight curvature so as to tangentially engage both coins **.25** and **.25'** when they bridge the gap between the base of the pocket and underside of the projection **60'**. At this stage the lever **48** is in the same radial position of its swing as when the dome **62** would engage the periphery of a fifty cent piece as previously explained.

From the foregoing it will be appreciated that the two quarters **.25** and **.25'** serve to couple the plunger actuated lever **48** to the vertical arm **41** of the coin carriage **37** for the balance of the full stroke of the plunger **54** against the lever **48**. Thus it will be seen that when either two quarters or one fifty cent piece is disposed in the V-shaped pocket **56** the coin carriage is coupled to the lever **48** for movement therewith upon continued movement of the plunger toward fully depressed condition.

When the coin carriage **37** is coupled to the plunger actuated lever **48** by the presence of a proper coin or coins therebetween, the coin carriage **37** will slide between plates **26—27** to the position shown in Fig. 2, when the plunger **54** is pressed all the way in. Since the toggle lever **31** is connected by link **46** to the coin carriage **37** movement of the latter toward full stroke position will rock the toggle lever **31** clockwise against the action of its spring **35**. Thus the toggle lever is rocked over center and into the position shown in Fig. 2 with the assistance of the spring **35**. It will thus be seen that even though the push button **55** has not been fully depressed, the coin carriage **37** will be shifted toward full stroke position by action of the toggle lever spring **35**.

The actual discharge of an article from the ledge **14**, however, requires the full stroke of the plunger **54** by manual depression of the button end **55** of the latter. As previously stated the upper end of lever **31** is connected to the push plate **17** which extends forwardly from the bottomless frame **15** of carriage gate **11**. Consequently the article confined within the frame **15** is shifted by rearward movement of the latter. In this manner the bottommost article is shifted off of the ledge **14** for discharge by gravity into the upper end of the discharge passage **16**. Note at this juncture that the parts of the device are positioned as illustrated in Fig. 2. Note also that the side plate **27** of housing H carries a coin displacing leaf spring **65** in the lower zone II of the V-shaped pocket **56** and **65'** in the upper zone I thereof. These springs **65—65'** are secured to the outer face of the side plate and extend through slots formed therein so that the springs **65—65'** press the coin or coins toward the opposite side wall **26** when the coin carriage is in full stroke position. The side wall **26**, Figs. 1 and 3 has a coin discharge aperture **66** formed therein adjacent the position assumed by the coins in the coin carriage **37** when the latter is in full stroke position.

From the foregoing it will be appreciated that as soon as plunger **54** is released for return to its normal position neither a fifty cent piece nor the two quarters will be gripped between the lever **48** and the vertical arm **41** of the coin carriage. Consequently the coin discharging leaf spring **65'** will press a fifty cent piece **.50** through the discharge aperture **66** or in the event two quarters **.25** and **.25'** were used, the lowermost quarter **.25** will be pressed out first and the uppermost quarter **.25'** will fall right behind the first for discharge through the aperture **66**. Coins discharging through the aperture **66** will fall into a cash box **67** in the usual manner.

In connection with the discharge of each article from the ledge **14** the falling article actuates a resetting mechanism for the coin control mechanism **20**. This resetting mechanism includes a resetting lever **68** pivotally mounted as at **69** on a stationary portion of the supporting structure **30** for the article passage P. Resetting lever **68** has a paddle **70** extending rearwardly from its lower end into the discharge passage **16** for engagement by a falling article just discharged from the ledge **14**. This opposite or upper end of the resetting lever **68** is linked by a pin and slot connection **71** to the lower end **72** of the toggle lever **31**. The arrangement is such that when the article discharged presses down upon the extended end of the paddle **70** the lever **68** is rocked (clockwise Fig. 2) thus rocking toggle lever **31** in an opposite direction against the action of the toggle spring **35**. When toggle lever **31** has rocked over center the spring **35** urges it the balance of the way toward normal or reset position.

With the return of the toggle lever **31** to normal position the coin carriage **37** is positively moved forward to coin receiving position by its linkage **46** with the toggle lever. The plunger actuated lever **48** is likewise shifted with the coin carriage and by action of its return spring **51**. The return of toggle lever **31** to normal position also withdraws the carriage gate **11** from discharge position so that the bottomless frame **15** registers with the lower end of passage P to receive the next article therefrom.

If per chance the last article stored in the machine was discharged on the last operation of the coin control **20** no article will be deposited on the shelf **14**. Consequently, should anyone deposit a coin or coins in the slot **21** there is no way of obtaining a refund. However, a shutter **80** is arranged for sliding movement on the inner face of the front wall F of the cabinet. This shutter **80** is disposed for sliding movement across the coin slot **21** to close the same against admittance of a coin into the runway **22**. This shutter **80** is connected by suitable linkage to a lever **81** having its inner extremity **82** disposed for movement up through the ledge **14** for detecting whether or not an article is present. Therefore, when no article is presented to the ledge **14** the inner extremity **82** of lever **81** is free to pass up beyond the ledge **14** whereupon the shutter **80** is automatically moved into closing position relative to the coin slot **21**.

In connection with the foregoing it will be noted that the shutter **80** is moved to slot closing position each time a lowermost article is shifted off of ledge **14** by movement of the carriage gate **11**. Consequently, no coins can be inserted into the coin slot **21** while the coin carriage **37** is in article discharging position. This is to say, while the V-shaped pocket **56** is out of coin receiving position with respect to the discharge end of the detector means **23**.

While the foregoing structure is in specific detail it

will be apparent that it is susceptible to variation, alteration, and/or modification without departing from the spirit of my invention. I therefore desire to avail myself of all variations, alterations and/or modifications fairly coming within the purview of the appended claims.

What I claim as new and desire to protect by Letters Patent is:

1. In a coin control mechanism for vending machines of the type including a gate carriage at the discharge end of an article feed passage for discharging a lowermost article therefrom, said coin control mechanism comprising vertical side plates spaced from each other to receive a coin flatwise between them, a coin carriage arranged for sliding movement between said side plates and connected to said gate carriage for moving the latter therewith, a lever pivotally connected to said coin carriage for movement therewith and for swinging movement relative thereto, a manually operated push button connected to said lever for moving the latter, said coin carriage and said lever having opposing faces contoured to provide a pocket therebetween for receiving two coins of comparable denomination between them for coupling said lever to said coin carriage for movement in unison therewith upon manual pressure against said push button.

2. A coin control mechanism for vending machines including a gate carriage at the discharge end of an article feed passage for discharging a lowermost article therefrom, said coin control mechanism comprising upright side plates spaced from each other to receive a coin flatwise between them, a coin carriage arranged for sliding movement between said side plates, a manually operated lever having its lower end pivotally connected to said coin carriage for movement therewith and for swinging movement relative thereto, said coin carriage and said lever having opposing faces contoured to provide an upper and a lower pocket therebetween, said lower pocket being adapted to receive two coins of comparable denomination and said upper pocket a single coin for coupling said coin carriage to said lever for movement in unison therewith upon manual pressure against said lever, and means for connecting said coin carriage and said gate carriage for shifting the latter into article discharging position.

3. A coin control mechanism for vending machines including an article discharge gate, said coin control mechanism comprising side plates spaced from each other to receive a coin flatwise between them, a coin carriage arranged for sliding movement between said side plates and connected to said gate for moving the latter therewith, said coin carriage including a foot portion and a vertical arm formed integrally therewith, a manually operated lever pivotally connected to said foot portion ahead of said vertical arm for swinging movement toward and from the latter, said vertical arm and said lever having opposing faces contoured to provide a pocket therebetween for receiving two coins of comparable denomination, said vertical arm having a rearwardly extending ledge and said lever having a dome-like formation opposite the ledge on said vertical arm to provide a restrictive passage in the upper region of said pocket for restricting passage of single coin of the total denomination of said two coins into the lower region of said pocket for coupling said coin carriage to said lever for movement in unison therewith upon manual pressure against said lever.

4. A coin control mechanism for vending machines including an article discharge gate, said coin control mechanism comprising side plates spaced from each other to receive a coin flatwise between them, a coin carriage arranged for sliding movement between said side plates and connected to said gate for moving the latter therewith, said coin carriage including a foot portion and a vertical arm formed integrally therewith, a manually operated lever pivotally connected to said foot portion ahead of said vertical arm for swinging movement toward and from the latter, said lever having a shoulder on its fore edge engageable with said foot portion for limiting forward swinging movement of said lever, said vertical arm and said lever having opposing faces contoured to provide a pocket therebetween for receiving two coins of comparable denomination therebetween, a recess formed in the fore edge of said vertical arm for receiving one of said coins upon swinging movement of said lever in an aft direction in the absence of a second coin in said pocket, and two coins present in said pocket bridging said recess for coupling said coin carriage to said lever for movement in unison therewith upon manual pressure against said lever.

5. In a vending machine of the type having an article discharge gate at the discharge end of an article feed passage, a coin control mechanism comprising a housing including a pair of spaced plates for receiving coins flatwise therebetween, a coin carriage arranged in said housing for sliding movement in a fore and aft direction, a toggle lever between said side plates linked to said coin carriage for normally urging the same into either of its extreme positions within said housing, means connecting said toggle lever to said discharge gate, and a coin coupler on said coin carriage comprising a lever arm pivotally connected to the latter for movement therewith and for rocking movement relative thereto, said lever arm cooperating with said coin carriage to provide a coin receiving pocket therein when said lever arm is in its foremost disposition, and a push button connected to said lever arm for urging the latter in an aft direction against a coin in said pocket for shifting said coin carriage in an aft direction against the action of said toggle lever for rocking the latter over center to thereby shift said discharge gate into article discharging position.

6. In a vending machine of the type having an article discharge gate at the discharge end of an article feed passage, a coin control mechanism comprising a housing including a pair of spaced plates for receiving coins flatwise therebetween, a coin carriage arranged in said housing for sliding movement in a fore and aft direction, a toggle lever between said side plates linked to said coin carriage for normally urging the same into either of its extreme positions within said housing, means connecting said toggle lever to said discharge gate, and a coin coupler on said coin carriage including a foot portion and a vertical arm formed integrally therewith adjacent the aft edge thereof, a lever arm pivotally secured to said foot portion substantially midway its fore and aft ends, spring means secured to said lever arm for urging the latter in a forward direction, said lever arm having a shoulder formed on its fore face for limiting pivotal movement of said lever arm in said forward direction whereby to provide a coin receiving pocket between said vertical arm and said lever arm, said vertical arm having a forwardly extending ledge and said lever arm having a rearwardly extending dome-like formation adapted to nest above the ledge on said vertical arm when no coin is present between them and for restricting passage of a valid fifty-cent piece for coupling said lever arm to said vertical arm for movement therewith in an aft direction.

7. In a vending machine of the type having an article discharge gate at the discharge end of an article feed passage, a coin control mechanism comprising a housing including a pair of spaced plates for receiving coins flatwise therebetween, a coin carriage arranged in said housing for sliding movement in a fore and aft direction, a toggle lever between said side plates linked to said coin carriage for normally urging the same into either of its extreme positions within said housing, means connecting said toggle lever to said discharge gate, and a coin coupler on said coin carriage comprising a foot portion having an integral vertical arm and a lever arm pivotally connected to said foot portion in advance of said vertical arm, said vertical arm having a forwardly extending ledge and said lever arm having a dome-like formation on its aft face to provide a restrictive passage between the upper and lower zones of said V-shaped pocket for restricting

passage of a valid 50 cent piece, and the lower zone of said V-shaped pocket including a recess formed on the fore edge of said vertical arm for receiving a single 25 cent piece upon rocking movement of said lever arm in an aft direction, said lower zone of said V-shaped pocket being adaped to receive two 25 cent pieces for bridging said recess formed on the fore edge of said vertical arm whereby the latter moves in unison with said lever arm when the latter is manually operated, and a push button operatively connected to said lever arm for manually operating the same.

References Cited in the file of this patent

UNITED STATES PATENTS

973,939	Harris	Oct. 25, 1910

FOREIGN PATENTS

20,873	Great Britain	Sept. 20, 1906
43,598	Germany	June 25, 1888
757,566	France	Dec. 28, 1933