

Sept. 15, 1959

K. J. HELSING  
VENDING APPARATUS

2,904,152

Filed April 12, 1957

2 Sheets-Sheet 1

FIG. 1.

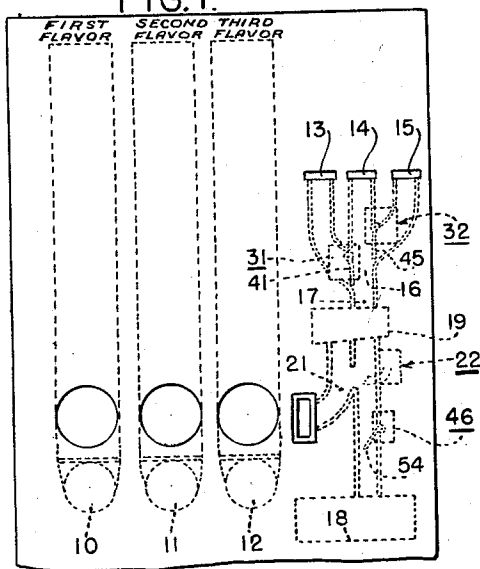


FIG. 2.

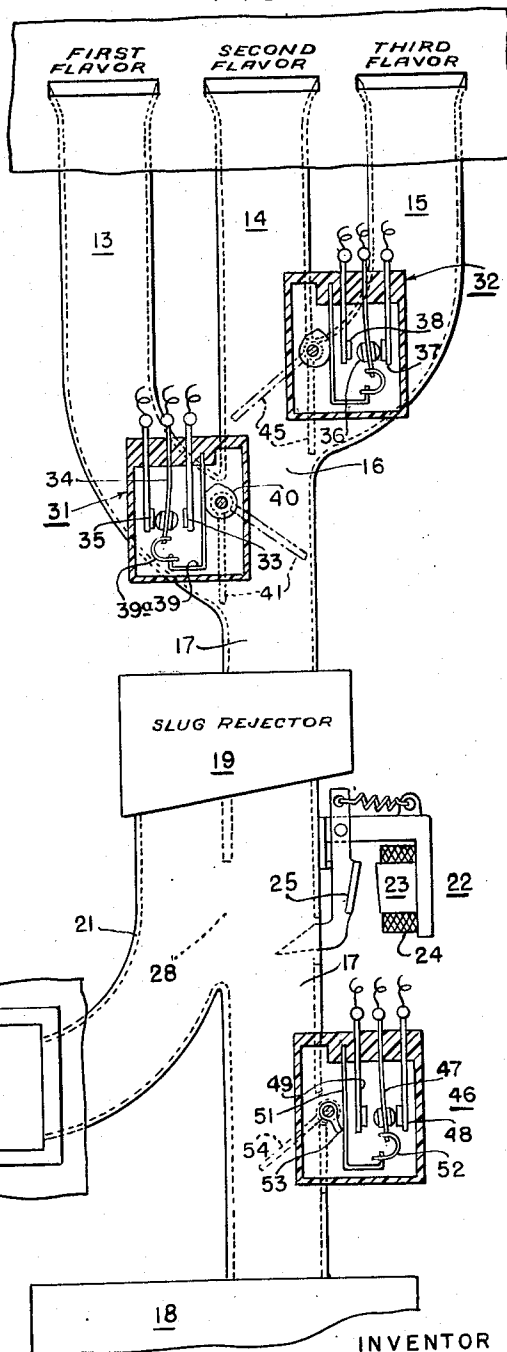
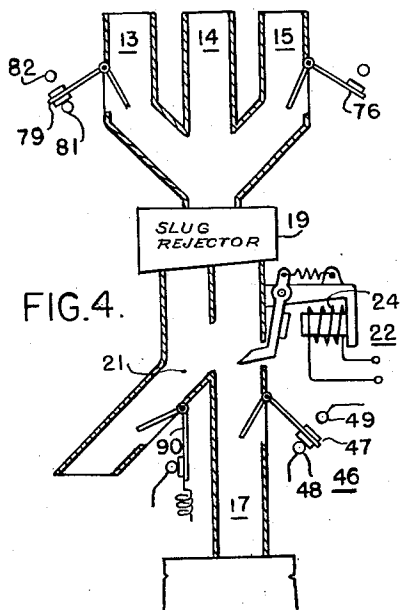


FIG. 4.



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2 Sheets-Sheet 2

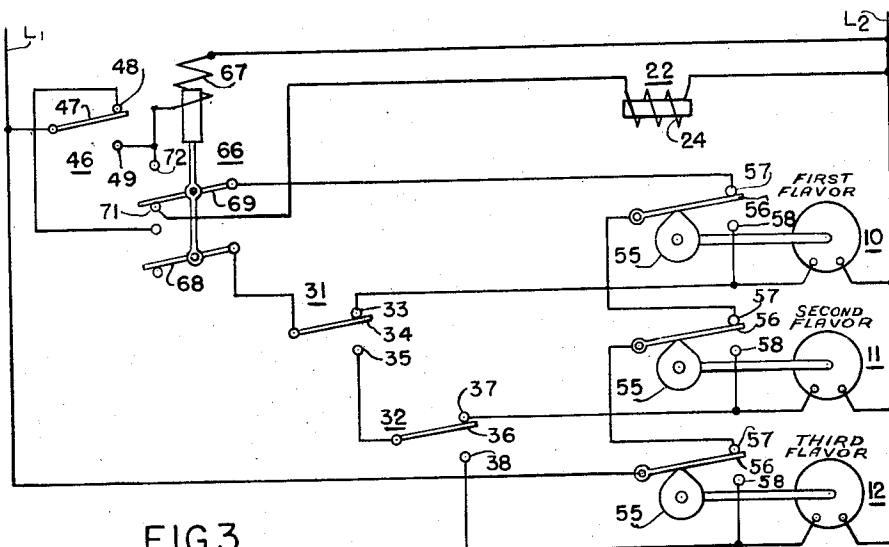


FIG. 3.

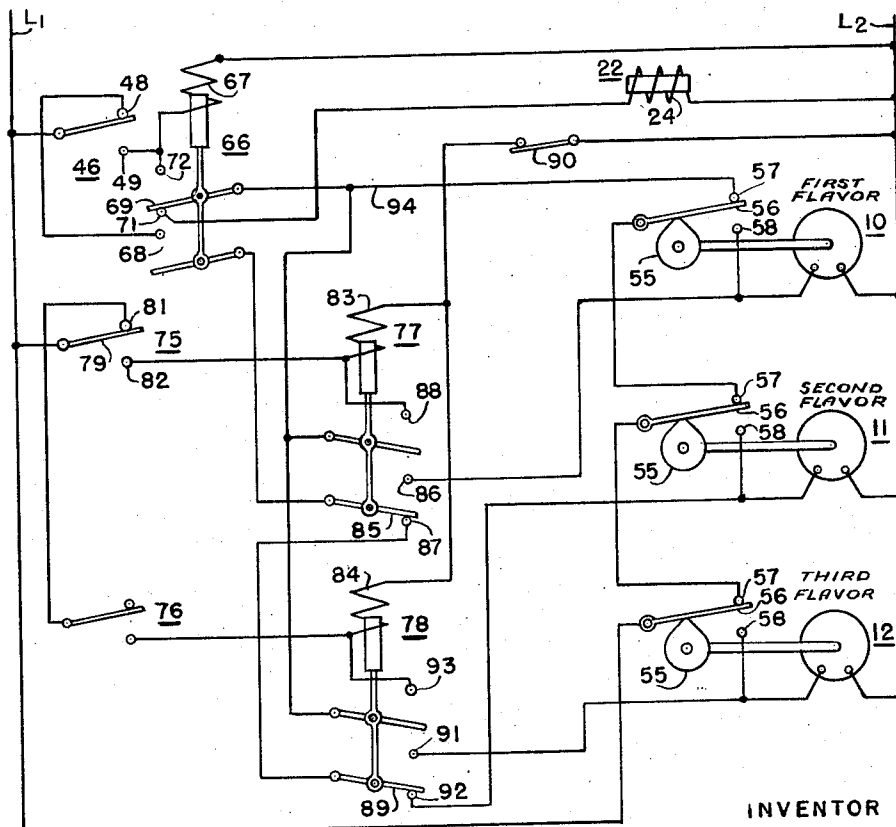


FIG. 5.

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1

2,904,152

## VENDING APPARATUS

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Application April 12, 1957, Serial No. 652,479

13 Claims. (Cl. 194—10)

This invention relates to coin controlled mechanisms for selecting and dispensing different products from a vending machine, and it has for an object to provide improved mechanisms of this type.

A further object of the invention is to simplify the switching mechanism for a plurality of product dispensing devices in a vending machine.

A still further object of the invention is to reduce the cost of apparatus of the class set forth.

A vending machine in which the present invention is incorporated includes a plurality of product dispensers and an individual coin slot and coin chute associated with each dispenser. Selection of the desired product dispenser is made by depositing a coin in the associated coin slot. The control includes a selector switch or switches, there being one less of such switches than there are product dispensers. Each switch is of the double-throw type. One switch provides selection between two dispensers and is associated with one or both of the coin chutes of these two dispensers. Another selector switch, associated with another coin chute and dispenser, is adapted in one position to select said other dispenser and to render the first-mentioned switch ineffective and in a second position to inactivate said other dispenser and to render the first-mentioned selector switch effective.

In a preferred embodiment of the invention, each selector switch is located at the junction of two coin chutes, is adapted to be actuated by the passage of a coin through either of the two chutes, and is of the type that remains in the position to which it has been actuated. With this embodiment it is possible to dispense with the selector relays connected between the coin operated switches and the product dispensers heretofore used.

The foregoing and other objects are effected by the invention as will be apparent from the following description and claims taken in connection with the accompanying drawings, forming a part of this application, in which:

Fig. 1 is a front view of a coin controlled multi-flavor bottle vendor controlled in accordance with the invention;

Fig. 2 is a view showing the arrangement of coin chutes and the selector switches associated therewith;

Fig. 3 is a diagram of electrical connections for the apparatus of Figs. 1 and 2;

Fig. 4 is a diagrammatic view illustrating a modified arrangement of the coin chutes and the switches associated therewith; and

Fig. 5 is a diagram of the electrical connections for the modification shown in Fig. 4.

Referring to Fig. 1 of the drawing, a bottle vendor is disclosed for dispensing three different flavors or kinds of beverages by motor driven bottle dispensers shown generally at 10, 11 and 12. While the invention is applicable to various machines for the vending of articles, it has been shown applied to a machine in which various bottled beverages may be selected and dispensed by the insertion of a coin in different slots. The motor driven dispensers 10, 11 and 12 are not shown in detail, for

2

the sake of brevity and since these mechanisms per se form no part of the present invention. It will suffice to say that they are started by insertion of a coin in the machine and then discharge a bottle through suitable openings in the front of the machine, after which the dispenser is deenergized and stopped automatically. The dispensers 10, 11 and 12 are provided with respective coin chutes or coin guiding means indicated at 13, 14 and 15, available to the customer for the insertion of a coin. For convenience, the flavors delivered by the dispensers 10, 11 and 12 will be referred to as the first, second and third flavors.

It will be noted that the chutes 14 and 15 for the second and third flavors are joined to form a single or common chute 16 or coin guiding means, and the latter is joined with the first flavor chute 13 to form a main or common chute 17 extending downwardly to a coin box 18. A conventional slug rejector 19 of any suitable type is disposed in the chute 17 and functions to direct spurious coins into a coin return chute 21, accessible to the customer.

A coin return device 22 is also provided to return coins to the customer at times when the vendor is not properly conditioned for receiving the coin; for example, when the vendor is in the course of a vending operation, as is well understood. The coin reject device 22 is associated with the main chute 17 at a suitable location, being shown in Fig. 2, merely for convenience of illustration, downwardly of the slug rejector 19. It includes an electromagnet 23 having a winding 24 and a movable, pivotally supported armature 25. When the winding 24 is deenergized, the end of the armature 25 extends into the path of a coin moving downwardly in the chute 17 to deflect the coin from chute 17 through an opening 28 into the coin return chute 21. When the winding 24 is energized, the armature 25 is magnetically withdrawn from the chute 17, so that a coin approved by the coin rejector 19 and passing through the chute 17 is delivered to the coin box 18.

In accordance with this embodiment of the invention, a selector switch 31 is disposed adjacent the junction of the chute 13 and the single chute 16 for actuation by coins passing through these chutes. Similarly, a switch 32 is arranged at the junction of the chutes 14 and 15 for actuation by coins admitted to these chutes. These switches 31 and 32 are double throw and remain in the positions to which they have been last actuated by a coin.

The switch 31 includes a stationary contact 33 which controls the dispenser 10 (see Figs. 2 and 3) and is engaged by a movable contact 34 when a coin passes through the chute 13. It includes a stationary contact 35 which is engaged by the movable contact 34 when a coin passes through the single or common chute 16 and which contact 35 is electrically connected to the movable contact 36 of the switch 32. The switch 32 includes stationary contacts 37 and 38 which are engaged by the movable contact 36 when a coin passes through the chute 14 or 15, respectively.

This illustrates a general characteristic of this embodiment of the invention; namely, that the stationary contact (referring to switch 31) for a chute (such as 16) that is common to two chutes is electrically connected to the movable contact of the switch (32) at the junction of such two chutes, so that the latter switch is rendered effective by the movement of a coin from such junction.

Any specific type of construction of selector switch may be used so far as the present invention is concerned, the construction shown being given merely by way of example. In the illustrated construction of switch 31, the movable contact 34 is snapped from one position to the other by a cam actuated, resilient finger 39 through a snap action, U-shaped compression spring 39a in a manner well under-

stood. The finger 39 is biased against a cam 40 moved angularly about its axis by an arm 41 disposed in the paths of coins moving through the first flavor chute 13 or the single chute 16. In the position shown in the drawings, the arm 41 is disposed in the dotted position, having been actuated last by a coin passing through the single chute 16. Accordingly, the contacts 34 and 35 are engaged. A coin passed through the first flavor chute 13 will contact the arm for movement to the dot and dash position and actuation of the contact 34 into engagement with the contact 33. It will be understood that the arm 41 and the movable contact 34 remain in the position to which they are actuated by a coin. In this connection, the cam 40 will be so shaped that the spring finger 39, by its bias, retains the cam 40 in its actuated position. This may be done by flattening the cam somewhat where it engages the arm 39 in its terminal positions.

The switch 32 is constructed similarly to switch 31. Its movable contact 36 engages, selectively, stationary contacts 37 and 38 in response to movement of an arm 45 engageable by coins passing through chute 14 or 15. It will be noted that, when the arm 45 is moved to the dotted line position shown, the movable contact 36 engages contact 37. Upon actuation of the arm 45 to the dot and dash line position responsive to passage of a coin through the chute 15, the movable contact 36 engages the stationary contact 38. This switch 32, like switch 31, is retained in the position to which it has been last moved by a coin passed through chute 14 or 15.

A master coin-operated switch 46 for initiating the dispensing operation is disposed in the common chute 17 downwardly of the coin reject device 22. This switch is generally similar to the switches 31 and 32 except that it is of the momentary contact type. This switch 46 includes a movable contact 47 engageable with a stationary contact 48 at all times except during the actuation of the contact 47 by passage of a coin through chute 17. During such actuation, the movable contact momentarily engages a second stationary contact 49. The movable contact 47 is actuated in snap-acting manner by a resilient finger 51 through a U-shaped compression spring 52. The finger 51 is actuated by an arm 53 which is fixed to and moved angularly by a coin actuated arm 54 disposed in the chute 17. The finger 51 is biased into engagement with the arm 53 at all times and the latter is so shaped that a clockwise turning moment is imparted to the arm 53. Accordingly, after a coin has cleared the arm 54, the latter and the arm 53 return to the position shown because of the bias of the finger 51.

Reference will now be had to Fig. 3 and to the motor operated dispensers 10 to 12, inclusive. Each of these dispensers includes a cam 55, rotatable through one revolution during a dispensing operation. The cams operate respective switches of the double-throw type. The switch associated with each dispenser includes a movable, cam-operated contact 56 engageable with one or the other of fixed contacts 57 and 58. Further reference to the operation of the cam-operated switches is made hereinafter.

A dispensing operation is initiated by the closing of a delivery relay indicated at 66 and including an operating coil 67 and a primary switch 68, closed during periods when the coil 67 is energized. The relay also includes a double-throw switch having a movable contact 69 engageable with a fixed contact 71 when the relay coil is deenergized and with a fixed contact 72 during periods of energization of the relay coil.

A cycle of operation of the dispenser of Figs. 1, 2 and 3 will now be described. It will be assumed that the source of power for the apparatus is represented by the line conductors L1 and L2, which usually is a 115 volt circuit. During an inactive period, the apparatus is in the position shown in Fig. 3 wherein the delivery relay 66 is deenergized, the coin return device 22 is energized, and the cam-operated switches of the dispenser are in the

position shown. It will be noted that the only circuit energized at this time is a circuit including the operating coil 24 of the coin return device. This circuit extends from line conductor L1 through the contacts 56 and 57 of the three cam-operated switches in series, the closed contacts 69 and 71 of the relay, and the operating coil 24 to the line conductor L2. Accordingly, the coin return device permits the passage of coins to the main delivery switch 46.

Assuming flavor No. 1 is desired, a coin is deposited in the chute 13 for the operation of selector switch 31. The coin engages the arm 41, moving it to the dot-and-dash station or position of Fig. 2 and closing the contacts 33 and 34. This operation of switch 31 conditions the electrical circuit for the motor operated dispenser 10 for energization, which is effected upon subsequent actuation of the switch 46. The coin, in passing through the chute 17, momentarily engages contacts 47 and 49 of the master switch 46, whereupon the relay coil 67 is connected across the conductors L1 and L2 for energization.

Energization of the relay 66 closes its main switch 68 for the energization of the selected motor driven dispenser 10, when the coin operated switch contact 47 re-engages the contact 48. The circuit may be traced from line conductor L1 through the contacts 47 and 48, switch 68, closed contacts 33 and 34 of the selector switch 31, and the motor driven dispenser 10 to the line conductor L2. Accordingly, a dispensing operation is initiated. Disengagement of the contacts 69 and 71 of relay 66 deenergizes the coin return device so that another coin cannot be passed to the switch 46 until the dispensing operation is completed. The engagement of switch contacts 69 and 72 provides a holding circuit for the relay 66, which circuit extends from the movable contact 69, now at the potential of the line conductor L1, through contact 72, relay coil 67 to the line conductor L2.

During a dispensing operation, the cam 55 of the dispenser 10 transfers the movable contact 56 from the fixed contact 57 into engagement with the fixed contact 58. Accordingly, a maintaining circuit for energizing the dispenser 10 is established from the line conductor L1 through the closed contacts 56 and 57 of dispensers 11 and 12 and the contacts 56 and 58 of dispenser 10 in series, and through the motor of the dispenser 10 to the line conductor L2. The disengagement of the contacts 56 and 57 of the cam-operated switch of the dispenser 10 opens the holding circuit of the relay coil 67, so that the main switch 68 of the relay is opened. This is of no moment as the circuit through the dispenser 10 just described remains completed. Disengagement of the contacts 69 and 72 opens the holding circuit through the relay coil 67, and the engagement of the contacts 69 and 71 conditions the coil 24 of the reject device for energization. This circuit is not completed at the moment, however, as the circuit is broken at the contacts 56 and 57 of dispenser 10. Toward the end of the dispensing operation, the cam-operated switch moves the contacts 56 out of engagement with the contact 58 and into engagement with the contact 57, as shown in the drawing. Accordingly, the dispensing device 10 is now deenergized and the dispensing operation is completed. The engagement of contacts 56 and 57 again completes the circuit through the coin return device, which will now permit the passage of a coin to the starting switch 46.

The operation of the mechanism for flavor No. 2 is the same as described, except, of course, the passage of a coin through the coin chutes 14 and 16 to the main chute 17 actuates the selector switches 32 and 31 to complete a circuit to the motor driven dispenser 11. At this time, of course, the selector switch 31 is positioned or stationed so that its contact 35 is engaged to render the switch 32 effective, and the latter is positioned or stationed to engage contacts 36 and 37 which control the dispenser 11. When a coin is admitted to the chute 15 for the operation of the dispenser 12, the movable contact 36 of the

5

switch 32 is stationed or engages the contact 38, which controls the dispenser 12. The operation of the main switch 46, the delivery relay 66, coin return device 22 and the cam switch of the selected motor driven dispenser for the delivery of the second and third flavors is the same as described in connection with the actuation of dispenser 10 for the vending of the first flavor.

The second embodiment shown in Figs. 4 and 5 includes a coin operated switch and a relay for each individual coin chute except one. When a coin is inserted in said one coin chute, the dispenser associated with this chute is operated upon the coin passing the master switch 46. Each of the relays has contacts which render the said one dispenser inactive when the relay is energized to activate the dispenser associated therewith.

Many of the elements of the control of Figs. 4 and 5 are common to both embodiments and are indicated by similar reference characters. The difference in the two embodiments resides in the selector switches and in the use of relays controlling the starting of the motor driven dispensers 10 to 12, inclusive. The selector switches are shown at 75 and 76 and the relays at 77 and 78. Switch 75 includes a movable contact 79 and stationary contacts 81 and 82, while switch 76 is a single throw type of switch. The switches 75 and 76 differ from the switches 31 and 32 in that they are biased to one position or station and are actuated to their other positions or stations by a coin. The switches return to the position to which they are biased when the coin has passed on. In other words, the switches operate similarly to the switch 46 of Fig. 1.

Switch 75 is located for actuation by a coin passing through chute 13 only, while switch 76 is disposed for actuation only by a coin passed through chute 15. Movable contact 79 of switch 75 is biased in any suitable manner for engagement with contact 81 and is momentarily engaged with contact 82 in response to passage of a coin through chute 13 for the energization of coil 83 of relay 77. The switch 76 is suitably biased to its open position, as shown, at all times and is momentarily closed by passage of a coin through chute 15 for the energization of a coil 84 of relay 78. It will be noted that a coin passing through chute 14 does not affect either switch 75 or 76.

Relay 77 has a main movable contact 85 engageable with contacts 86 and 87 when the relay is energized and deenergized, respectively. The relay also operates a switch 88 controlling a holding circuit for its coil 83. Relay 78 includes a main movable contact 89 engageable with contacts 91 and 92 when the relay 78 is energized and deenergized, respectively. Relay 78 also operates a switch 93 for controlling a holding circuit for its coil 84.

Operation of the control system of Figs. 4 and 5 will now be described. Dispensing of the first flavor by the mechanism 10 is effected by inserting a coin in the chute 13, whereupon the movable contact 79 of selector switch 75 engages the contact 82 momentarily for the energization of relay coil 83. Relay 77 operates to close its holding switch 88 and for engaging the contacts 85 and 86. The latter operation conditions the circuit for the dispenser 10 for energization, and the closing of the holding switch 88 maintains energization of the coil 83 through a circuit extending from the line conductor L1 through the closed contacts 56 and 57 of the three cam-operated switches, as clearly shown, to a conductor 94 and thence by way of switch 88, coil 83, and a closed switch, generally indicated at 90 and referred to hereinafter, to the line conductor L2. The coin passes to the main delivery switch 46, since the coin return device 22 is energized at this time, as described heretofore. The movable contact 47 of switch 46 is actuated by the coin into engagement with the contact 49 for directly connecting the relay coil 67 across the line conductors L1 and L2. The holding circuit for the main delivery relay 66 is completed by the closing of the contacts 69 and 72, and ex-

6

tends from conductor 94, now at the potential of line L1 as set forth above, through contacts 69 and 72 and coil 67 to line conductor L2. The closing of the switch 68 and the reclosing of contacts 47 and 48 complete the circuit to the motor driven dispenser 10 which now starts the dispensing operation. The circuit for the dispenser 10 may be traced from the line conductor L1 through contacts 47 and 48, main switch 68, contacts 85 and 86 of the relay 77, the dispenser 10 and line conductor L2.

As set forth in connection with the first embodiment, the cam-operated switch for the dispenser 10 will, after a short period of operation, separate contacts 56 and 57 and engage contacts 56 and 58 to provide a maintaining circuit for the dispenser 10. This circuit extends from the line conductor L1 through the closed contacts 56 and 57 of the cam switches of dispensers 11 and 12, the contacts 56 and 58, the dispenser 10 and the line conductor L2. The separation of contacts 56 and 57 of the cam switch of dispenser 10 opens the holding circuit for the delivery relay 66 and selector relay 77, which now move to the positions shown in the drawing. Toward the end of the dispensing operation, the motor driven dispenser 10 actuates its cam-operated contact 56 to the position shown in the drawing, whereupon the dispenser 10 is deenergized and conductor 94 is energized at potential of line L1. The latter operation energizes the coin return coil 24 through the circuit including the relay contacts 69 and 71. This completes a cycle of operation, and the apparatus and the various elements of the system assume the positions shown in the drawing, so that they are conditioned for another vending operation.

Dispensing of the third flavor is, of course, effected by passage of a coin through the chute 15. This operation momentarily closes the selector switch 76 for the energization of the relay 78. The latter closes the holding circuit for its coil 84 by the closing of the switch 93, which holding circuit extends from the conductor 94, now at the potential of line conductor L1 as described, through the switch 93, the coil 84, closed switch 90 to the line conductor L2. Closing of the switch contacts 89 and 91 conditions the circuit for the dispenser 12 for operation. Energization of the dispenser 12 is completed in the same manner as described in connection with the operation of the dispenser 10 after the main switch 46 has energized the delivery relay 66 and returned to the position shown in the drawing, wherein the contacts 47 and 48 are engaged. The operation of the dispenser 12 is the same as described in connection with dispenser 10. It will be understood that the maintaining circuit for the dispenser 12 is completed by the closing of its contacts 56 and 58 and that the relays 66 and 78 are deenergized by the separation of its contacts 56 and 57.

In the dispensing of the second flavor by the passage of a coin through the chute 14, neither selector switch 75 nor 76 is operated, and the dispensing operation is carried out by the motor driven dispenser 11 with the engagement of contacts 47 and 49 by the coin. The relay 66 is maintained energized by its holding circuit contacts 69 and 72 in the same manner as described heretofore. The circuit for the dispenser 11 extends from the line conductor L1 through contacts 47 and 48, the closed switch 68, contacts 85 and 87 of relay 77, the contacts 89 and 92 of the relay 78, and the dispenser 11 to the line conductor L2. The maintaining circuit for the dispenser 11 is, of course, completed by the engagement of its contacts 56 and 58. Deenergization of the delivery relay 66 occurs when the contacts 56 and 57 of the dispenser 11 are separated. Of course, at the end of this dispensing operation, the apparatus is returned to the position shown in Fig. 5, in readiness for a further vending operation.

It will thus be noted that since the circuit for the dispenser 11 extends through the back contacts 87 and 92 of the selector relays 77 and 78, this circuit will be conditioned for operation if neither relay is energized,

but will be inactivated if either relay is energized. Thus, it is possible to dispense with a selector relay for the dispenser 11.

The switch 90 is connected in circuit with the coils 83 and 84 of the selector relays 77 and 78. This switch is biased closed at all times and is momentarily opened by passage of a coin through the coin return chute 21. If a coin is rejected for any reason and passes through the return chute 21, the switch 90 is opened momentarily to open the holding circuit of, and thereby to deenergize, either of the selector relays 77 and 78 that may have been previously energized by the passage of the rejected coin through the chute 13 or 15. Thus, the selection made by a rejected coin is cancelled and the control is returned to the condition shown in Fig. 5, with the relays deenergized, in which effect will be given to the selection to be made by the next coin to be inserted.

It is to be understood that there are various other auxiliary devices in common use in connection with a control of the character described. These have not been shown because they are not necessary to an understanding of the present invention and may be applied and used in a manner already known.

From the foregoing, it will be apparent that the number of selector switches in a multiple product coin operated vendor has been reduced so that the vendor may be more economically produced. While the invention has been described in connection with three-product dispensers, it will be understood that it is equally adaptable to vendors for dispensing a greater or lesser number of products.

While the invention has been shown in several forms, it will be obvious to those skilled in the art that it is not so limited, but is susceptible of various other changes and modifications without departing from the spirit thereof.

What is claimed is:

1. In a coin controlled system for selectively operating at least three electrically controlled product dispensers, the combination of an electric circuit for each of said dispensers, a trio of product selection coin chutes for the respective dispensers, first and second coin operated switches disposed, at least in part, adjacent the respective first and second coin chutes for actuation by coins passed therethrough, said first switch being movable to one station for conditioning the electric circuit for the first dispenser for operation and for rendering the second switch ineffective, and to another station for inactivating the first dispenser and for rendering the second switch effective, said second switch being movable to first and second stations for respectively conditioning the electric circuits for the second and third dispensers for operation, and means responsive to the passage of a coin from any of said coin chutes beyond a predetermined point common to said chutes for operating the dispenser selected for operation by said first and second switches.

2. In a coin controlled mechanism for selectively operating first and second product dispensers, the combination of first and second coin chutes for the respective dispensers, an electric circuit for each of said dispensers, a double-throw selector switch movable to first and second active stations for conditioning the electric circuits for the respective first and second dispensers for operation, a member associated with both chutes for actuating the switch to its active stations, said member responding to the passage of a coin through the first or second chute for, respectively, moving the selector switch to its first or second station, means defining a common passageway for coins passed through either chute and master switching means associated with the common passageway and movable to a closed position responsive to the passage of a coin therethrough for energizing the dispenser selected for operation by the selector switch.

3. In a coin controlled mechanism for selectively controlling first and second product dispensers, the combination of an electric circuit for each of said dispensers, first

and second coin chutes for the respective dispensers, a selector switch movable to first and second stations for conditioning the electric circuits for the respective first and second dispensers for operation, means associated with both coin chutes and responsive to the passage of a coin through the first or the second chute for respectively actuating the selector switch to its first or second station, and a master switch, movable to closed position in response to the passage of a coin through either chute, for causing operation of the dispenser selected for operation by the selector switch.

4. In a control system for selectively operating one of a trio of product dispensers, the combination of an electric circuit for each of said dispensers, first, second and third coin chutes for the respective dispensers, said second and third chutes being joined to form a single chute and said single chute and the first chute being joined to form a common coin discharge chute, first and second selector switch means, said first selector switch means being movable to one active station for conditioning the electric circuit for the first dispenser for energization and for inactivating the second selector switch means in response to the passage of a coin through said first coin chute, said first selector switch means being movable to another active station for inactivating the electric circuit for the first dispenser and for activating the second selector switch means in response to passage of a coin through said single chute, said second selector switch means, when active, being responsive to passage of a coin through said second chute for conditioning the electric circuit for the second dispenser for operation and for inactivating the electric circuit for the third dispenser and responsive to passage of a coin through the third chute for conditioning the electric circuit for the third dispenser for operation and for inactivating the electric circuit for the second dispenser, and master coin operated switch means associated with said common coin chute and closed responsive to the passage of a coin therethrough for energizing the dispenser conditioned for operation by the first and second selector switch means.

5. In a control system for selectively operating one of a trio of product dispensers, the combination of an electric circuit for each of said dispensers, first, second and third coin chutes for the respective dispensers, a relay when energized conditioning the electric circuit for the first dispenser for operation and inactivating the electric circuits for the second and third dispensers, said relay, when deenergized, inactivating the electric circuit for the first dispenser and conditioning the electric circuit for the second and third dispensers for operation, means responsive to passage of a coin through the first coin chute for energizing said relay, a second relay energized and deenergized for respectively conditioning the electric circuits for the second and third dispensers for operation under control of the first relay, means responsive to passage of a coin through said second chute for energizing the second relay, and a master delivery switch actuated to closed position for energizing the dispenser selected for operation by said relays in response to the passage of a coin from any of said coin chutes.

6. In a coin actuated control mechanism, the combination of first and second coin chutes, a selector switch movable to first and second active stations, and a member associated with both coin chutes and movable from a position within one coin chute to a position within the other coin chute responsive to the passage of a coin through the first or the second chute for actuating the selector switch to its first or second station, respectively.

7. In a coin actuated control mechanism, the combination of first and second coin chutes joined to form a single chute, a double throw selector switch movable to first and second active stations, and a member disposed at the junction between said first and second chutes for actuating the switch to its active stations, said member being movable to first and second positions respectively

within the path of a coin passing through said first or second coin chutes, said member moving to its first or second position, respectively, in response to a coin passing through said second or first coin chute.

8. In a coin actuated control mechanism, the combination of first, second and third coin chutes, said second and third chutes being joined to form a single chute, first and second selector switch means, each of said switch means being movable to first and second active stations, means responsive to the passage of a coin through the first chute or the single chute for actuating said first switch means to its first or second station, respectively, and means responsive to the passage of a coin through the second chute or the third chute for actuating said second switch means to its first or second station, respectively.

9. In a coin actuated control mechanism, the combination of first, second and third coin chutes, said second and third chutes being joined to form a single chute, first and second selector switch means, each of said switch means being movable to first and second active stations, means responsive to the passage of a coin through the first chute or the single chute for actuating said first switch means to its first or second station, respectively, means responsive to the passage of a coin through the second chute or the third chute for actuating said second switch means to its first or second station, respectively, and means electrically connecting said first and second switch means and permitting said first switch means when in its first or second station to respectively deactivate or activate said second switch means.

10. In a coin actuated control mechanism, the combination of first and second coin guiding means connected to a single coin guiding means, said single coin guiding means being positioned at least in part below the first and second coin guiding means for receiving coins from either, a selector means having first and second active stations and an actuating means disposed at least partially in said single coin guiding means for actuating the selector means to its active stations, said actuating means having first and second positions respectively situated to be acted upon by the passage of a coin through said first or second coin guiding means, and said actuating means being positioned at its first or second positions respectively in response to a coin passing through said second or first coin guiding means.

11. In a coin actuated control mechanism, the combination of first, second and third coin guiding means, said second and third coin guiding means being connected to a single coin guiding means, first and second selector means, each of said selector means having first and second active stations, means responsive to the passage of a coin through the first coin guiding means or the single coin guiding means for actuating said first selector means to its first or second station respectively, and means

responsive to the passage of a coin through the second or third coin guiding means for actuating said second selector means to its first or second station respectively.

12. In a coin actuated control mechanism the combination of first, second and third coin guiding means, said second and third coin guiding means being connected to a single coin guiding means, first and second selector means, each of said selector means having first and second active stations, means responsive to the passage of a coin through the first coin guiding means or the single coin guiding means for actuating said first selector means to its first or second station respectively, means responsive to the passage of a coin through the second or third coin guiding means for actuating said second selector means to its first or second station respectively, and means connecting said first and second selector means and permitting said first selector means when in its first or second station to respectively deactivate or activate said second selector means.

13. Coin operated mechanism for controlling selective activation of a trio of actuating devices, the combination of first, second and third coin guiding means for the respective devices, said second and third coin guiding means being connected to a single coin guiding means, said single coin guiding means and first coin guiding means being connected to a common coin guiding means, first and second selector switches, each of said selector switches including a movable contact and first and second fixed contacts engageable thereby, a circuit electrically connecting the second fixed contact of the first switch to the movable contact of the second switch, the first fixed contact of said first switch being adapted to be electrically connected to said first device, the first and second fixed contacts of said second switch being adapted to be electrically connected to said second and third devices respectively, means responsive to the passage of coinage through said first coin guiding means or through said single coin guiding means for moving the movable contact of said first switch into engagement with its said first or second fixed contact respectively, means responsive to the passage of coinage through said second coin guiding means or said third coin guiding means for moving the movable contact of said second switch into engagement with its first or second fixed contact respectively, and master coin operated switch means associated with said common coin guiding means for completing a circuit to said selector switches for energizing the device selected by said switches.

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