March 5, 1963 J. D. ROBBINS ETAL 3,080,036

COIN OPERATED BANKING MACHINE

Filed Jan. 16, 1961 3 Sheets-Sheet 1

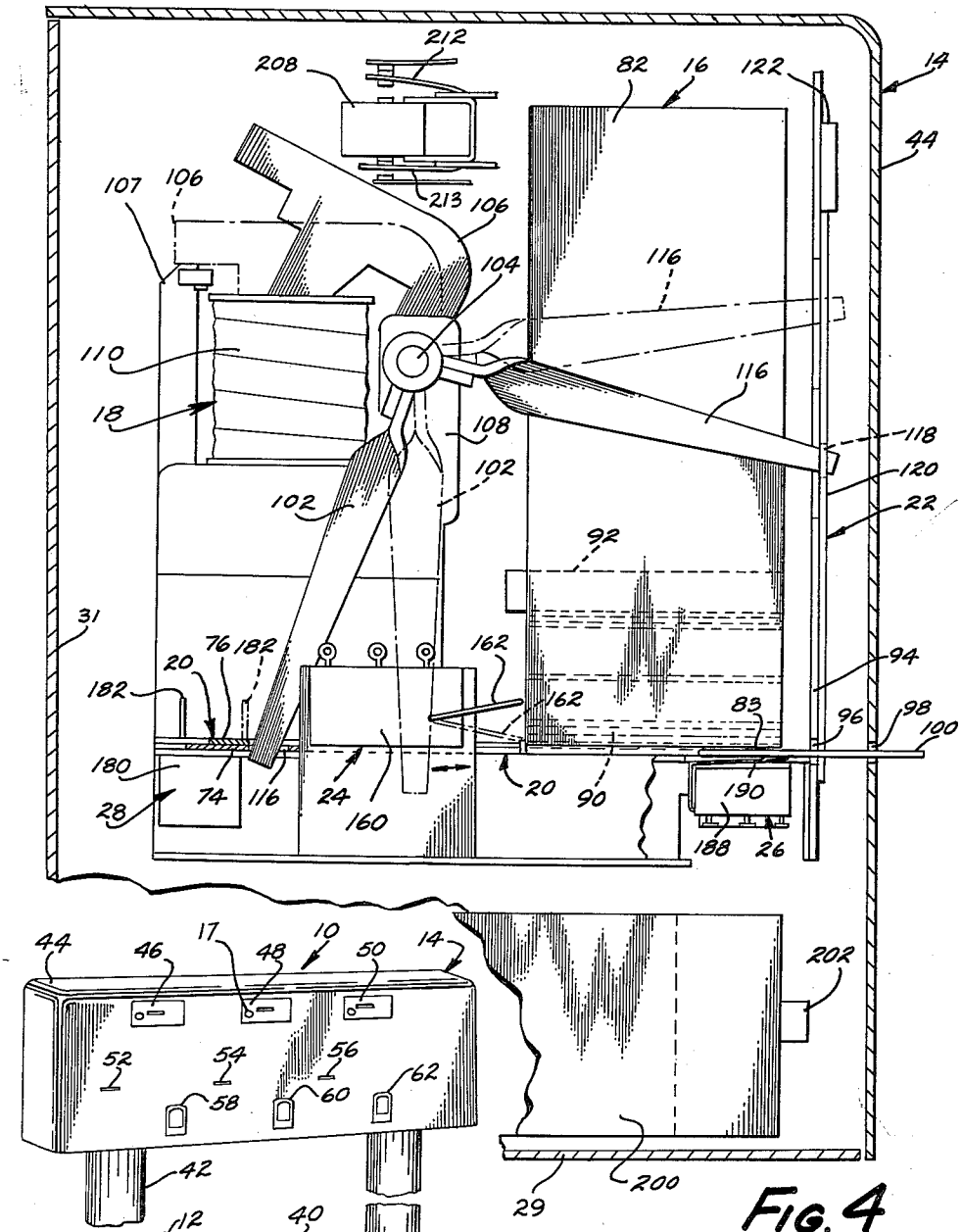


FIG. 4

FIG. 1

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Filed Jan. 16, 1961 3 Sheets-Sheet 2

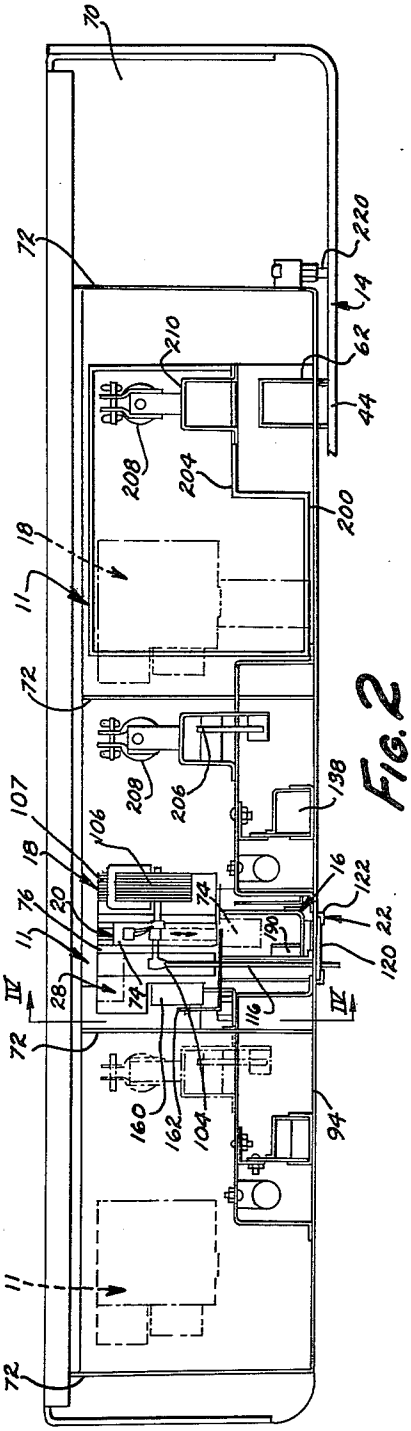


FIG. 2

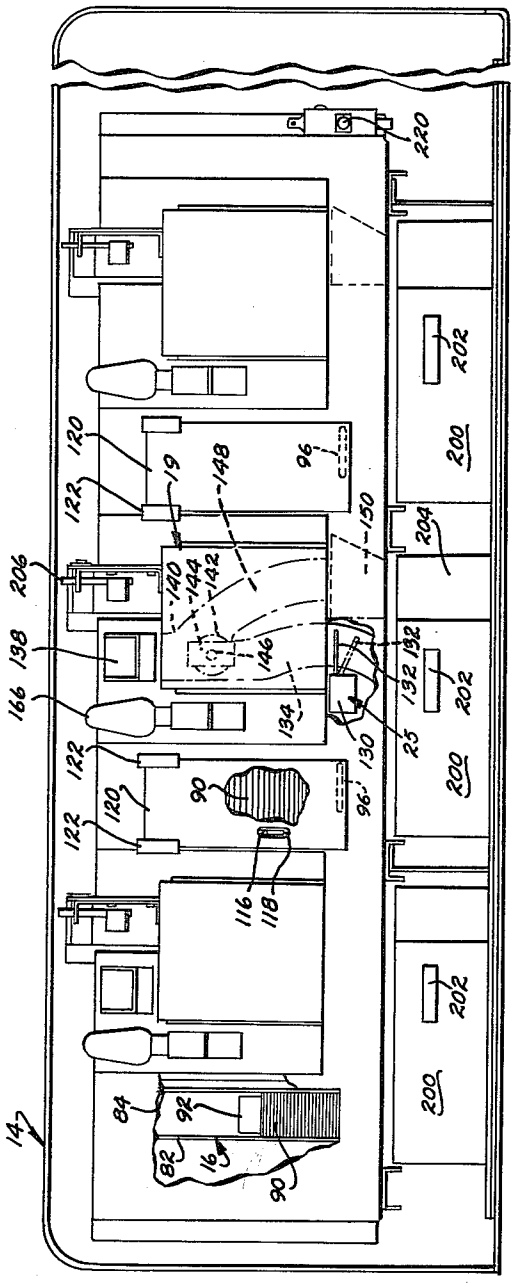


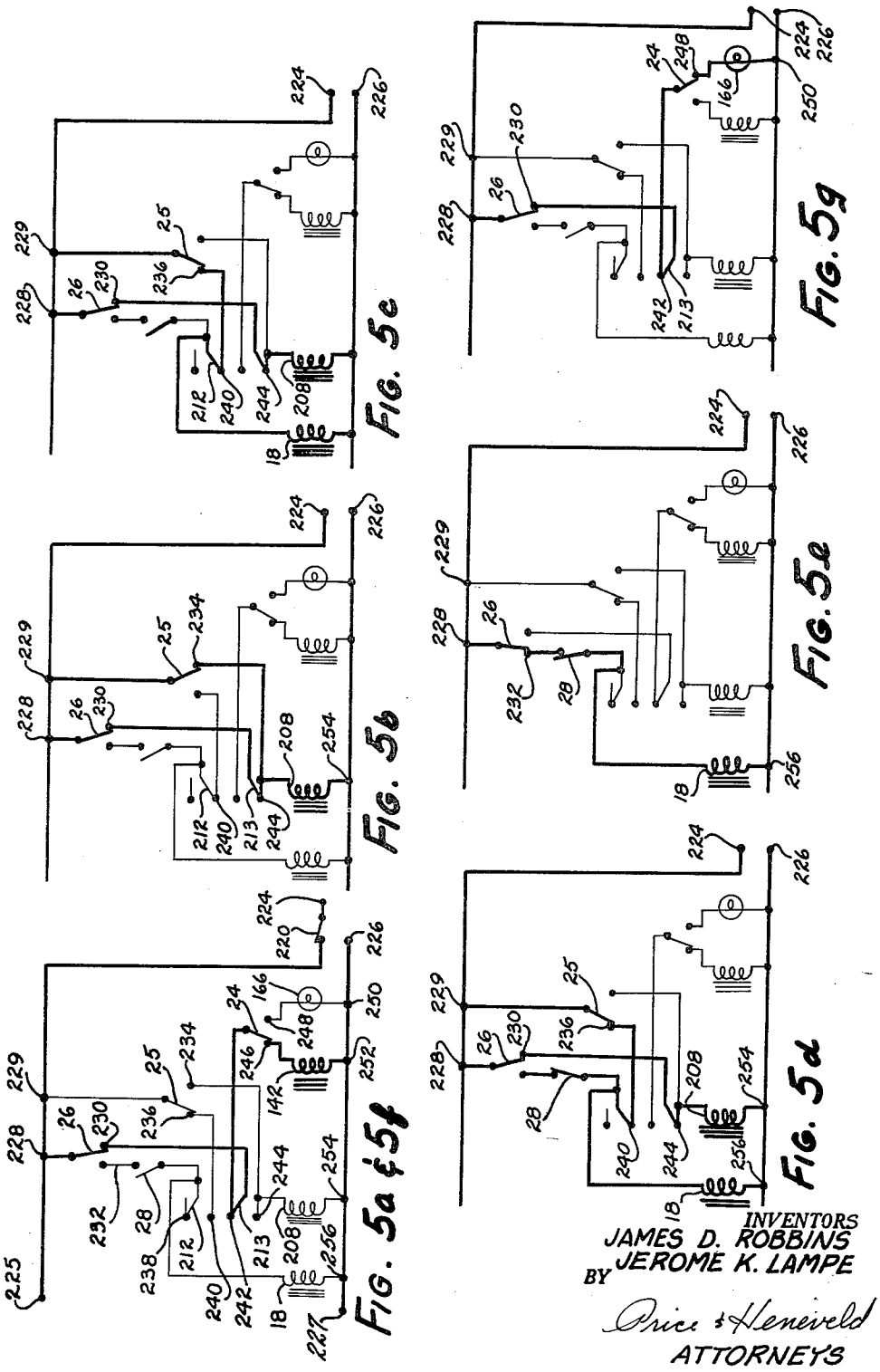
FIG. 3

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COIN OPERATED BANKING MACHINE

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COIN OPERATED BANKING MACHINE

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5 Claims. (Cl. 194—10)

This invention relates to a coin operated banking machine including a dispensing apparatus and more particularly a ticket or tab dispensing machine.

The development of the attribute of thrift in children and young people is an important aspect of education which is largely neglected today. This is due not only to the general level of prosperity of parents, but also because of a lack of appropriate facilities through which this attribute may be cultivated. Of course, a deposit of several dollars may be made at a bank by a trip of several blocks or several miles, but this is highly inconvenient and not conducive at all to the saving of a portion of children's pocket change. Thus, it is evident that some type of banking equipment is needed to fill this gap for teaching children how to manage money by investing a portion thereof. Such equipment would have to be completely foolproof and dependable, would have to be easily accessible to the children, and must not require the constant services of other people. A banking machine of the vending type but possessing unique qualities is therefore needed for this purpose.

Vending machines of various types and for various purposes are well known in modern society. Although these machines have been adapted to dispense a multitude of items, still there are associated with such machines certain problems with respect to both the users and the owners or operators thereof that prevent them from being absolutely dependable. These problems include pilfering, loss of coins due to article jamming, multiple dispensing with one coin, and others too numerous to list. Such difficulties, although in many situations not really significant, have prevented the adaptation of dispensing machines to the business activities including banking where complete safety of investment, absence of potential malfunction of the equipment, protection from pilfering, and completely foolproof and reliable operation are absolute requirements.

It is therefore an object of this invention to fill the gap in the present banking business by providing a unique banking machine for encouraging the saving of coins by children.

It is a further object of this invention to provide a banking machine incorporating a dispensing apparatus which can be readily and safely used in connection with ordinary banking operations, with savings bond dispensing, and with other related transactions. It is a further object to provide a machine for dispensing tickets with a printed redeemable value thereon, which dispenser is entirely free of fault and affords complete protection to the machine owner and user from pilfering, coin loss due to tab jamming during operation, coin loss due to being empty, slipping of dispensed tabs back into the dispensing slot when removal is clumsily attempted by children, multiple dispensing with one coin, jamming of successively dispensed tabs, and other such defects which in the past have prevented the successful use of dispensing machines for banking purposes and related transactions in connection with which people require utmost safety and confidence.

It is a further object of this invention to provide a ticket dispensing apparatus which operates completely automatically, is relatively simple in construction, is readily serviced, requires no human maintenance under normal conditions, renders banking operations adaptable to schools and the like, encourages saving of loose change due to its convenient location and automatic operation, allows saving of coins of various denominations, is lightweight, may be readily mounted upon the wall or upon a floor stand, and possesses the sturdiness characteristic of banking institutions.

These and other objects will be apparent upon a perusal of the following specification and the drawings in which:

FIG. 1 is a perspective view showing the banking machine mounted upon a floor stand;

FIG. 2 is a top view of the machine with the cover removed to show the internal mechanism;

FIG. 3 is a front view of the machine with the cover removed;

FIG. 4 is an enlarged sectional end view taken on plane IV—IV of FIG. 2 and

FIGS. 5*a* through 5*g* are a wiring diagram sequence representing the circuitry during the various phases of operation of the machine.

Basically, the invention comprises an automatic banking machine adaptable to schools and the like which dispenses tickets, coupons, or bonds of designated value in exchange for coins of various denominations. The tickets are collectible in a booklet for redemption at a local franchised bank after enough have been collected to make a trip to the bank worthwhile.

More specifically, the inventive banking machine utilizes a plurality of adjacent coin operated ticket dispensers, each including a vertical ticket guide to hold a stack of tickets, a horizontally sliding ejector which pushes the bottom ticket in the stack forward out of the housing, a dispensing solenoid which activates this slide, a coin mechanism including a coin operated switch which actuates this solenoid, a pilfer-proof safety door over the slot in the housing through which the ejected ticket passes, a ticket actuated delivery switch which holds the dispensing solenoid in the active position, an anti-jacking switch actuable with the slide ejector and in electrical series with the delivery switch for the prevention of pilferage, and an empty switch actuated by a weight on the stack of tickets to be dispensed for rejecting coins when the tabs have been depleted.

Referring to the drawings, the banking machine includes the dispenser assembly **10** mounted on floor stand assembly **12**. The dispenser includes housing subassembly **14**, and an optional plurality of three dispenser sub-assemblies **11**. Each of these dispensers include a guide sub-assembly **16**, a dispenser solenoid sub-assembly **18**, a ejector slide sub-assembly **20**, a pilfer-proof door assembly **22**, and empty switch assembly **24**, a delivery switch assembly **26**, an anti-jacking switch assembly **28**, and a coin reject mechanism **19**.

The dispenser **10** may be suitably mounted upon a floor stand **12** including a base **40** and columns **42**. The housing assembly **14** includes cover **44** that extends over the top, front and two ends of the dispenser assembly, and embodies coin receiving slots **46**, **48** and **50**, tab dispensing slots or openings **52**, **54**, **56**, and coin reject cup **58**, **60** and **62**. Cover **44** also envelopes end space **70** on one end of the dispenser assembly, which space may incorporate a suitable alarm device actuated by an attempted moving of the entire machine. The cover is locked in place over the mechanism to permit only authorized removal for adding tickets and removing money. Referring to FIGS. 2 and 3, it is seen how the three tab dispensing mechanisms **11** are located longitudinally within the housing, each cooperating with one coin slot, one tab dispenser slot and one coin reject cup in the housing cover shown in FIG. 1. In FIGS. 2 and 3 the middle dispenser is shown in detail while its two adjacent dispensers are shown at least partly in phantom to avoid duplication in

the drawings and specification. This middle dispenser will be described in detail hereinafter, and it is to be understood that each of its adajcent dispensers operate similarly but independently, and receive a different denomination coin as indicated by the designations on the cover in FIG. 1. Housing **14** also includes bottom panel **29**, back panel **31** and inner front panel **94**.

When the cover is removed from the rest of the housing and the dispenser units as in FIGS. 2 and 3, the three individual units **11** separated by partitions **72** are shown, each including among other things, an ejector mechanism **20** and its operating solenoid **18**. Ejector **20** includes a flat rectangular slide **74** which is reciprocally movable as indicated by the arrows in FIGS. 2 and 4 within guide **76** so that at its forward position it projects into the lowermost portion of vertical tab guide means **16** as indicated in phantom in FIG. 2.

The rectangular ticket guide means **16**, including side walls **82** and **84**, may be seen more clearly in FIGS. 3 and 4. This guide supports a stack of premium tickets or tabs **90**. These tabs are biased downwardly by a weight **92**, preferably made of metal to assure proper dispensing. This weight also actuates empty switch **24** in a manner to be described hereinafter. The bottom tab in the stack is aligned with slide **74** so that when the slide moves toward the front **94** of the housing, it pushes the lowermost tab out slot **96** in the housing casing and slot **98** in the housing cover **44** to cause it to protrude from the housing as shown at **100** in FIG. 4. Slide **74** is actuated by lever **102** which is fixedly mounted upon shaft **104**, as is solenoid armature **106**. Shaft **104** is mounted upon a suitable bracket **108** secured to the housing. Armature **106** may be constructed of a laminated magnetizible metal as shown in FIG. 2 and includes a cooperating stationary portion **107**. Thus, upon actuation of electrical coil **110** the pivotal portion **106** of the armature rotates counterclockwise toward the coil as shown in phantom in FIG. 4 to contact portion **107**. This causes shaft **104** to rotate counterclockwise and shift lever **102** to the position shown in phantom in FIG. 4. This lever extends through opening **116** in slide **74** and thus as it rotates, pushes slide **74** toward the front **94** of the housing. The slide thus pushes the lowermost tab **100** of the stack **90** out the front of the dispenser as described above. Also fixedly mounted upon shaft **104** is lever **116**, the terminal end of which projects through opening **118** in sliding door **120** of the pilferproof door assembly **22**. This sliding door is guided by suitable laterally positioned channel guides **122** shown in FIGS. 2 and 4. Upon rotation of shaft **104**, lever **116** shifts upwardly to the position shown in phantom, thus raising door **120** to allow tab **100** to project out openings **96** and **98**. This door in its lower position prevents pilfering by a method involving delivery switch **26** and to be described more fully hereinafter.

The solenoid assembly **18** is actuated by coin switch **25** in coin reject sub-assembly **19** shown in FIG. 3. This switch includes housing **130** and extension arm **132** which is positioned within coin channel **134** so that when a coin contacts the switch, it assumes the position shown in phantom in FIG. 3 while the coin passes. The coin is inserted in coin slot **48**, (FIG. 1) from whence it falls into coin chute **138** (FIG. 3) and into channel **140**. Solenoid **142** located adjacent this channel is normally activated so that pivotal flange **144** and its attached extension piece **146** are held rearwardly against the solenoid and out of the coin channel **134**. When the solenoid is deactivated, flange **144** and its extension piece **146** move toward the front of the housing to allow extension **146** to enter channel **134** and prevent coins from falling therethrough onto switch arm **132**. This causes the coin to ricochet and fall into reject channel **148** through funnel **150** and into a return cup **60** attached to housing cover **44** as shown on the right end unit in FIG. 2. This solenoid **142** is deactivated to cause a coin return during certain stages of operation of the dispenser.

Empty switch **24** shown in FIG. 4 deactivates the solenoid **142** when the guide **16** is empty of tabs **90**. Empty switch **24** includes switch body **160** and lever arm **162** mounted adjacent the guide means **16** as shown in FIG. 4. When the supply of tabs **90** has been depleted, weight **92** lowers and depresses lever **162** to the position shown in phantom in FIG. 4. This deactivates solenoid **142** and lights the indicator bulb **166** shown in FIG. 3 in a method to be described hereinafter, so that the light is visible through glass **17** (FIG. 1).

Mounted to the housing behind the slide **74** is an anti-jacking switch assembly **28** as shown in FIG. 4. Included in this switch assembly are switch housing **180** and its lever arm **182** which moves toward the front of the housing under the force of a biasing spring when the slide **74** moves forwardly. Switch arm **182** abuts the rear surface of slide **74** so that as the slide moves forward, arm **182** moves also to the position shown in phantom in FIG. 4 and thereby closes the switch. This switch is located in electrical series with delivery switch assembly **26** located adjacent slot **96** in the housing and beneath guide **16** and tabs **90** as shown in FIGS. 2 and 4. This delivery switch assembly **26** includes switch body **188** and lever arm **190** which extends upwardly into the path of the dispensed tab **100**. Thus, when a tab is pushed forwardly by slide **74**, this tab **100** depresses arm **190** to throw switch **188**. When the anti-jacking switch **28** is forward and the delivery switch **26** is depressed, the dispensing solenoid **18** is held in its activated position by a method and for a purpose to be described hereinafter.

Located beneath each dispensing unit is a money receiving drawer **200** with a suitable handle **202** thereon. Coins which fall through channel **134** and depress switch arm **132** to actuate coin switch **25** thus fall into box **200** for collection in exchange for a dispensed tab which protrudes through the housing slot for removal. If on the other hand, the unit is empty or malfunctioning so that solenoid **142** is de-energized, the coin entering chute **138** will bump into projection **146** and be re-routed down channel **148** into funnel **150** where it will fall into coin return cup **60**. This coin return cup projects beneath funnel **150** by virtue of a cutout portion **204** in box **200**. This cutout may be seen most clearly in the box under the right hand end unit in FIG. 2. The coin rejector mechanism is not shown in detail since it is very conventional and may be readily obtained from National Rejectors, Inc. of St. Louis, Missouri, for example. This coin reject mechanism includes the conventional bent coin release lever **206** which spreads the elements forming the coin channel **140** to allow the bent coin to pass through return channel **148**. Obviously the structure of the coin mechanism may be altered in various ways since it is only important basically as an element in the combination.

The electrical control circuit for each dispensing unit includes a relay mechanism **208** suitably mounted to the housing as shown in FIG. 2, as for example, by a bracket **210**. This relay includes two sets of switching contacts **212** and **213**, the function of which is explained in connection with FIG. 5. Also included in the circuit is a general safety switch **220** which closes to allow operation of the units **11** only when the housing cover **44** is placed on the dispenser to depress the switch and thereby close the same. This protects the person serving the machine from electrical shock due to accidental contact with the electrical components.

Circuitry

In FIG. 5, there is depicted several sequences, namely *5a* through *5g*, of the electrical circuitry representating the successive operations of each of the three dispensing units. In operation, three of the circuits shown in FIG. *5a* are connected together in series to accommodate the three units. That is, points **224** and **226** of a second identical circuit are connected to points **225** and **227** of the preceding dispensing unit circuitry, and a third identical

circuit is connected to the second one. One safety switch 220, closed by locking housing cover 44 in place, is provided for the three connected circuits. This switch is shown only in FIG. 5*a* for convenience. The sequence of operation involved with this circuitry will be explained as applied to the middle unit 11 which was heretofore described in structural detail. Each of the other dispensing units would function independently in a similar manner when independently actuated by a coin of the designated denomination.

Referring to FIG. 5*a*, points 224 and 226 are connected across a conventional power line, preferably 110 volts, by a suitable plug (not shown). Embodied in the circuit are delivery switch 26, coin actuated switch 25, empty switch 24, anti-jacking switch 28, relay switches 212 and 213, dispensing solenoid 18, coin return solenoid 142, relay 208, and empty indicating bulb 166. In FIG. 5*a*, the depicted circuitry represents a dispensing unit which contains a stack of tabs and is ready to dispense a tab when coin actuated. Delivery switch 26 is in its normal position in contact with point 230 and has its arm 190 raised (FIG. 4). Relay switches 212 and 213 are in their normal positions in contact with dead point 238 and point 242 respectively. Empty switch 24 has its arm 162 placed in its normal raised position with the switch in contact with point 246 and thus with coin return solenoid 142. Therefore, a complete electrical circuit may be traced from point 224 through switch 220 to point 228, through switch 26 to point 230, through switch 213 to point 242, through switch 24 to point 246, through solenoid 142 to point 252, and back to point 226. Thus solenoid 142 is now activated so that the extension piece 146 shown in FIG. 3 is withdrawn from the coin slot to allow coins to fall through channel 134 onto switch arm 132.

In FIG. 5*b*, the coin has been dropped through slot 48, down chute 138 into channel 134 to depress switch arm 132 of switch 25 thereby causing switch 25 to contact point 234 rather than its normal biased contact with point 236. Thus, a circuit may be traced from point 224 to point 229, across switch 25 to point 234, through relay 208 to point 254 and back to point 226. Relay switches 212 and 213 are now activated by passage of current through the coil of relay 208, and they contact points 240 and 244 respectively. Upon switch 213 contacting point 244, another complete circuit forms and may be traced from point 224, through switch 226 to point 230, through switch 213 to point 244, through relay 208 to point 254, and back to point 226. Since switch 213 is no longer in contact with point 242, the circuit traced through coin reject solenoid 142 is no longer complete. Thus, it may be seen that as soon as one coin is inserted into one dispensing unit, any coin inserted in this unit before the complete cycle has taken place will be rejected. This is caused by the inactive state of solenoid 142 which allows projection 146 to block coin channel 134 leading to switch arm 132, thereby deflecting coins into return channel 148.

After the coin passes switch 25, switch arm 132 raises to its normal position thereby causing switch 25 to recontact point 236 as shown in FIG. 5*c*. Relay 208 remains activated as do switches 212 and 213 by the current flow through switch 26 and switch 213. When switch 25 recontacts point 236 another circuit is formed due to the switch 212 now being actuated by the relay to contact point 240. This circuit shown in FIG. 5*c* may be traced from point 224 to point 229, hence through switch 25 to points 236 and 240, through switch 212, through dispensing solenoid 18 and back to point 226. With the activation of solenoid 18, armature 106 shown in FIG. 4 pivots on shaft 104 to rotate lever 102 and push slide 74 toward the front of the housing. This slide pushes the lowermost tab 100 out through slots 96 and 98 and depresses arm 190 of delivery switch 26. Also, arm 184 of anti-jacking switch arm 182 moves forward with slide 74 to close switch 28 as shown in FIG. 4.

In FIG. 5*d* switch 28 is shown in the closed position, which condition occurs after a partial stroke of the dispensing solenoid 18. When the solenoid stroke is complete switch 26 contacts point 232 as shown in FIG. 5*e*. This completes the circuit traced from point 224 to point 228, through switch 26 to point 232, through switch 28, through solenoid 18 to point 256 and back to 226. This represents the circuitry when the ejector slide has moved forward to its limit to push the dispensed tab partially out of the housing which tab then holds switch 26 depressed due to the limited amount of clearance between the bottom edge 83 of the guide 16 and the switch arm 190 over which the tab must pass.

When the tab is completely removed, switch 26 asumes its normal position in contact with point 230 to give the circuitry shown in FIG. 5*f*, which is the same as FIG. 5*a*. The unit is then ready to dispense another tab upon being actuated again by another coin. Relay 142 is again activated to allow coins to actuate switch 25.

In FIG. 5*g* is shown the circuitry of one dispensing unit when all of the tabs of that unit have been exhausted. Switch 26 and relay switches 212 and 213 are in their normal position, but switch 24 is now in contact with point 248 instead of point 246, since weight 92 (FIG. 4) has depressed switch arm 162 to the position shown in phantom. Thus, the circuit may be traced from point 224 to point 228 through switch 26 to point 230, through switch 213 to point 242, through switch 24 closed by weight 92 to point 248, and through bulb 166 to points 250 and 226. The lighting of this bulb indicates to the user the empty condition of the dispensing unit. Also, normally active coin return solenoid 142 is now inactive due to the contact of switch 24 with point 248 instead of point 246 so that projection 146 on flange 144 now protrudes into coin channel 134 and causes coins dropped into chute 138 to be deflected into return channel 148, and through funnel 150 to the return cup. Thus, weight 92 serves not only to maintain the stack of tabs in the proper arrangement to prevent malfunction during the dispensing operations, but also controls empty switch 24.

Anti-jacking switch 28 safeguards the machine from tampering with paper clips, hair pins, or the like through slot 96 in the housing to cause depression of switch arm 190 of delivery switch 26. If this switch 28 were not in electrical series with delivery switch 26, a paper clip inserted through the tab dispensing slots could depress arm 196 (FIG. 4) to contact switch 26 with point 232 and complete the circuit across dispensing solenoid 18 to obtain a tab. This possibility of pilfering is completely eliminated by the anti-jacking switch which does not close until the unit has been coin actuated to cause movement of the slide 74 through the coin actuated switch and the solenoid 18 as in FIG. 5*c*.

Delivery switch 26 itself is important for several reasons. Firstly, it holds solenoid 18 in its active position as long as the tab which protrudes partly into and partly out of the housing and guide 16 remains in that position. This prevents a second tab from being dispensed by the solenoid either by chattering which is characteristic of solenoids, or by the insertion of a second coin. Multiple dispensing by chattering would obviously be detrimental to the owner or operator of the machine. In addition this multiple dispensing could jam the tabs together at the base of the stack as could the ejection of a second tab by inserting a second coin before removal of the first tab. All such potential malfunctioning must be completely eliminated when such machines are to be used for dependable banking operation. Delivery switch 26 serves still another purpose in that while the solenoid remains activated, the dispenser slide 74 remains in contact with the protruding tab 100 and prevents clumsy fingers, of children for example, from inadvertently pushing the tab back into the housing.

Safety door assembly 22, which is lifted to uncover slot 96 only when the dispensing solenoid has been coin

actuated, provides a further safeguard to prevent pilfering of the machine by tampering with switch **26** or the stack of tabs **90** with knives etc.

It will readily be seen from the description of the structural and circuitry details that the operation of the machine is completely automatic. This automation stimulates saving of coins by users, especially school children, since it is simple to operate and fascinating to watch. The dispensed tabs may be collected and preferably placed in a booklet, which, when full, is redeemable at a local franchised bank or the like. Because of this unique function of the machine, it may readily be appreciated that the machine must be completely dependable and stable in its operation and appearance.

Operation

The dispensing apparatus, as described above, is intended to be used as a savings machine for school children, by enabling the periodic purchase of redeemable coupons or bonds which may be collected in a booklet for redemption after a specified number of bonds or coupons are assembled.

In operation therefore, the machine will be placed, as one example, in the hall of a school. It may be mounted on a floor stand as in FIG. 1, or fastened to the wall. The cover **44** of the installed machine is removed from the dispenser **10** and each of the three guide means **16** is filled with a stack of tabs **90**. Each of the plurality of stacks possesses tabs representing a different denomination and having printed designations thereon indicating such. Thus, for example, the three units disclosed may be adapted to dispense tabs representing five cent, ten cent, and twenty-five cent tabs. When a booklet of, for example, $5 of one of these units has been collected after a period of time, the booklet is presented to a local bank under franchise for deposit or redemption of the specified amount. After the three stacks of tabs **90** have been placed in the guide means **16**, a weight **92** is placed on the top of each stack as shown in FIG. 4. Cover **44** is then replaced and locked into place. Thus, the unit is ready to dispense tabs.

When a person wishes to obtain a 10¢ tab, for example, a dime is inserted into the middle slot on the machine. This dime falls through slot **48**, into chute **138**, past the normally active solenoid **142**, into channel **134** to activate arm **132** of switch **25** and thence into coin box **200**. When switch **25** is thus actuated, the electrical circuitry follows the series of operations shown in FIG. 5 to dispense a tab. That is, switch **25** contacts point **234** to actuate relay **208** and thus relay switches **212** and **213**. After the coin has passed switch **25**, the switch reverts to contact point **236** to actuate dispensing solenoid **18** which causes armature **106** to assume the position shown in FIG. 4. This rotates shaft **104** and thus lever **116** to lift door **120** and lever **102** to move slide **74** forward, thereby forcing the lowermost tab **100** from the bottom of the stack of tabs **90** over switch arm **190** of switch **26**, depressing the same, and out through slots **96** and **98**. Simultaneously antijacking switch arm **182** follows the slide to assume the position shown in phantom in FIG. 4. This sequence of operations is shown in FIGS. 5*d* and 5*e* wherein switch **26** leaves point **230** and thus deactivates relay **208**, and contacts point **232** to hold dispensing solenoid **18** in the active position through switch **28** until the tab **100** has been removed from the machine by the user. When the tab is removed, the circuit again reverts to that represented in FIG. 5*f*, and is ready to dispense another tab. When the stack of tabs has been depleted, the indicator bulb is lighted as shown in FIG. 5*g* and all later inserted coins are rejected in that particular unit of the machine by the inactivation of solenoid **142**. The 5¢ and the 25¢ units operate similarly under independent actuation by dropping nickels or quarters through slot **46** and slot **50** respectively. After the dispensed tab has been completely removed by the user, solenoid **18** becomes inactive due to switch **26** reverting to contact **230**. This causes armature **106** to assume its original raised position and thereby causes levers **102** and **116** to assume their original position.

Other features and advantages, and certain modifications of the banking machine of this invention are possible and will occur to those skilled in the art. The embodiments described are intended to be illustrative and are not intended to limit the scope of the invention other than as incorporated within the definitions provided in the appended claims and the reasonable equivalents thereto.

We claim:

1. A coin operated banking machine comprising; an enclosed housing having a plurality of orderly arranged groups of premium tickets, each ticket of each group having printed thereon and representing a certain amount of redeemable money and the tickets of different groups being of different denominations; a vertical guide means for retaining a plurality of said tickets; a horizontally moving ejector slide means located adjacent the base of said guide means; an opening in said housing through which a ticket may pass and located adjacent the base of said guide means opposite said ejector means; a normally inactive solenoid means operatively connected to said ejector to shift said ejector and dispense the bottom ticket; a coin slot and connected chute in said housing; an electrical circuit including power supply leads and including said normaly inactive solenoid, a two-way coin actuable switch in said chute, and a delivery switch at the base of said guide means and adjacent said housing opening; said coin switch being capable of activating said solenoid to shift said ejector and cause a ticket to protrude through said housing opening; and said delivery switch being thrown by the protruding ticket and being adapted when thrown to hold said solenoid active until the ticket is removed; said delivery switch being adapted to open and release said solenoid when said ticket is removed; and said ejector being biased to return to its original position upon release of said solenoid.

2. A tab dispensing machine comprising the combination of a housing; a vertical guide means for retaining a plurality of tabs; a horizontally moving ejector slide means located adjacent the base of said guide means; an opening in said housing through which a tab may pass and located adjacent the base of said guide means opposite said ejector means; a normally inactive solenoid means operatively connected to said ejector; a coin slot and connected chute in said housing; an electrical circuit including power supply leads and including said normally inactive solenoid, a two-way coin actuable switch in said chute, and a delivery switch at the base of said guide means and adjacent said housing opening; said coin switch being connected across said leads and capable of electrically activating said solenoid to shift said ejector and cause a tab to protrude through said housing opening; said delivery switch being connected across said leads in electrical parallel to said coin switch and adapted to be thrown to closed position by the protruding tab to hold said solenoid active until the tab is removed; said delivery switch being adapted to open and release said solenoid when said tab is removed; and said ejector being biased to return to its original position upon release of said solenoid.

3. The combination of claim 2 wherein said circuit includes a normally open anti-jacking switch connected in electrical series with said delivery switch and said solenoid; said anti-jacking switch being adapted to be thrown by the ejecting movements of said slide means to a closed position in electrical series with said delivery switch so that closure of said delivery switch without closure of said coin switch will cause said solenoid to remain inactive.

4. A dispenser comprising in combination a housing;

a vertical guide means within said housing and adjacent one lateral face thereof; a stack of tabs of cardboard or the like within said guide; a weight resting upon said stack; a horizontally shiftable ejector means adjacent the base of said guide means opposite said lateral face of said housing; said ejector having a thickness roughly equal to that of one of said tabs to be dispensed; a slot opening in said housing lateral face aligned with said ejector; a sliding door normally covering said slot; a normally inactive solenoid operatively connected to said ejector and said door to shift said ejector toward said slot against the edge of a tab in said stack and to lift said door to allow protrusion through said slot of said tab when said solenoid is activated; a coin receiving slot and connected coin chute in said housing; an electrical circuit including power leads and including said normally inactive solenoid, a two-way coin actuated switch normally biased to one position and operatively associated with said chute, said coin switch being electrically connected in series with said solenoid across said power leads; a normally active solenoid associated with said coin chute to normally allow coins to shift said coin switch to its second position, a delivery switch at the base of said guide and capable of being shifted by a partially dispsensed tab; said delivery switch being in electrical series with said solenoid across said power leads and being in electrical parallel with said coin switch to hold said normally inactive solenoid activated until removal of said tab, and said circuit including a normally open anti-jacking switch in electrical series with said delivery switch so that closure of said delivery switch without coin actuation of said coin switch will cause said normally inactive solenoid to remain inactive.

5. An article dispensing machine comprising a housing; article storage means in said housing; article ejector means adjacent said storage means to eject an article therefrom; an opening in said housing through which said article can be ejected; solenoid means to shift said ejector; an electrical control circuit including power line leads; said solenoid being electrically connected across said leads in electrical series with a releasing, coin-actuated switch and in series with a holding delivery switch, said releasing switch being in electrical parallel with said holding switch; said holding delivery switch being adapted to be closed by a partially ejected article, and adapted to be held closed until said article is removed from said housing so that said solenoid is held actuated and said ejector is held in its shifted condition until said article is removed, and said delivery switch being opened upon removal of said article whereby said solenoid is deactivated and said ejector returns to its original position.

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