April 14, 1942. F. C. DU GRENIER 2,279,664

COIN CONTROLLED MECHANISM

Filed June 9, 1939 5 Sheets-Sheet 1

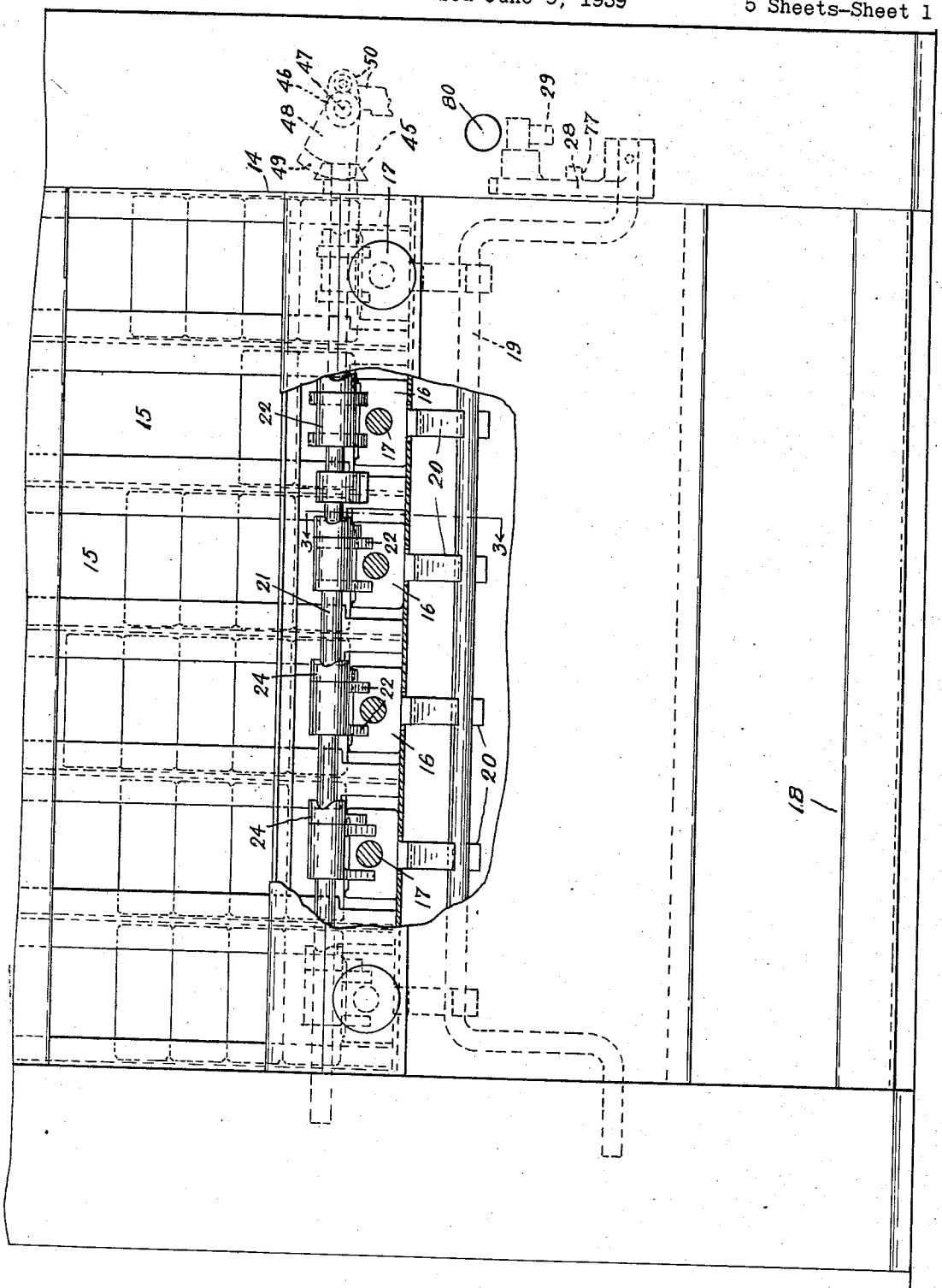


Fig. 1.

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COIN CONTROLLED MECHANISM

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Fig. 2.

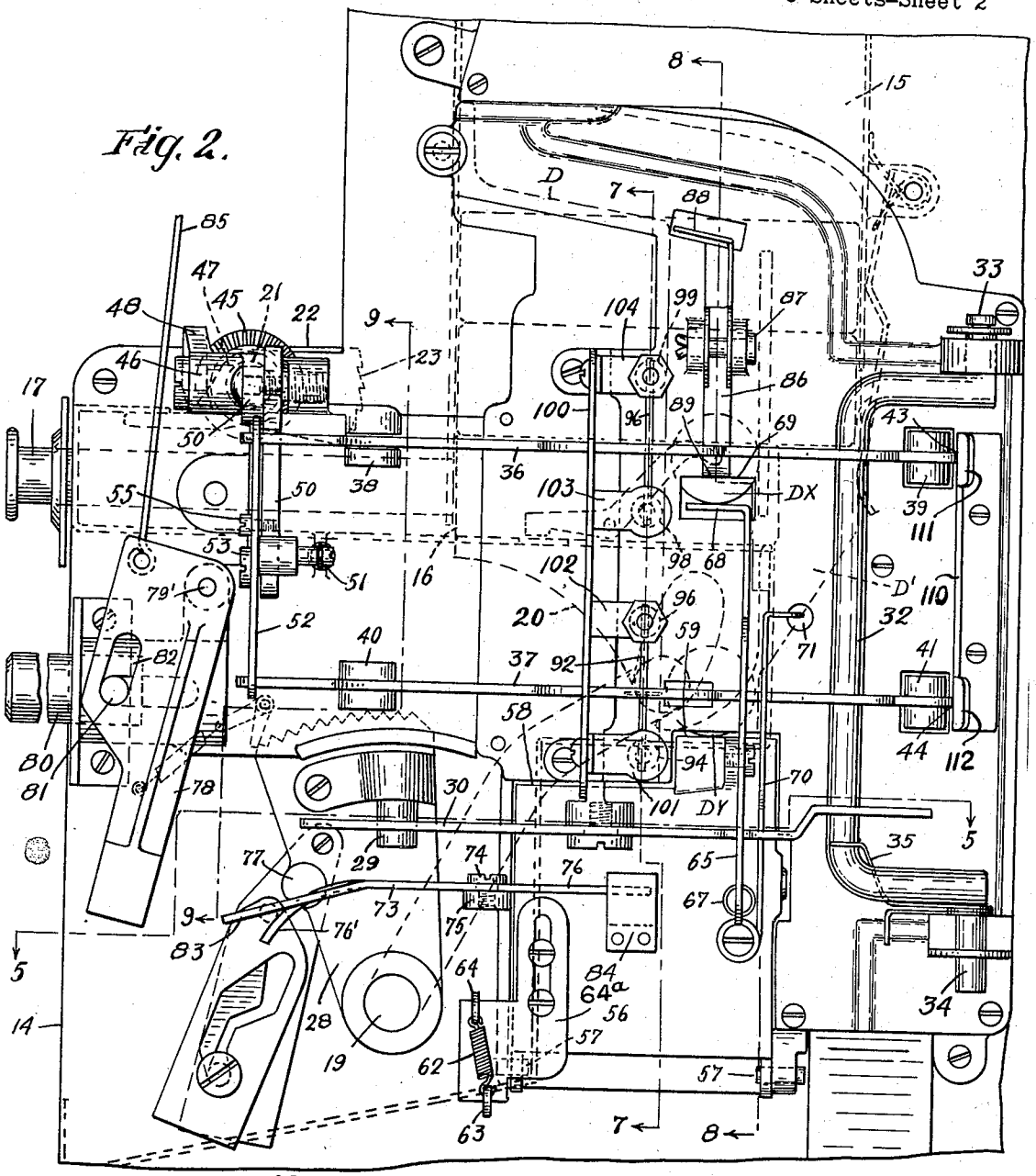
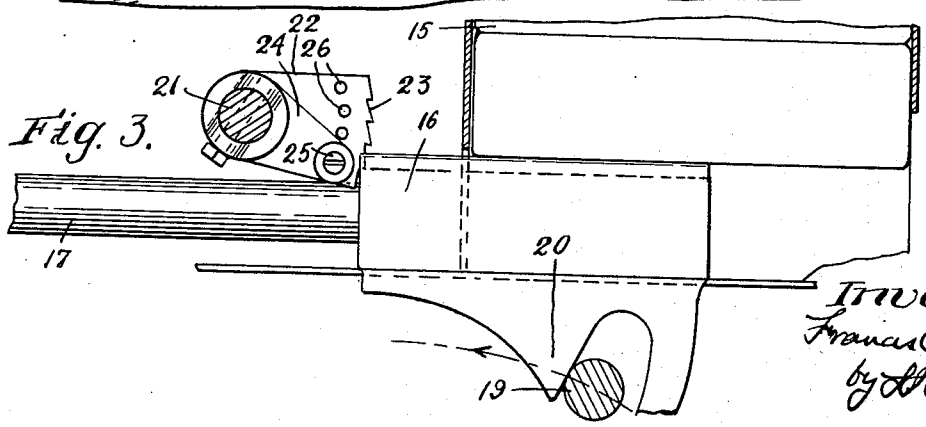


Fig. 3.



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COIN CONTROLLED MECHANISM

Filed June 9, 1939 5 Sheets-Sheet 3

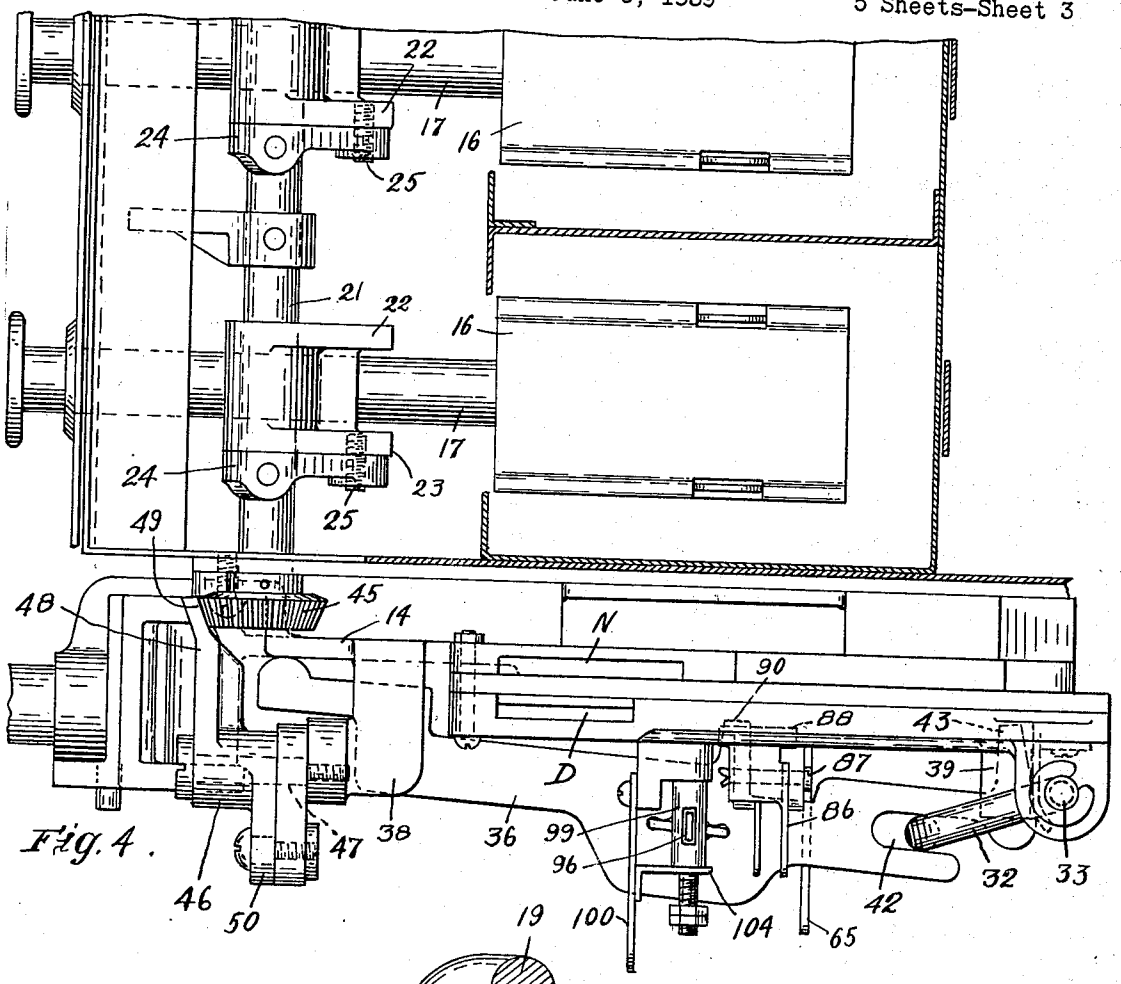


Fig. 4.

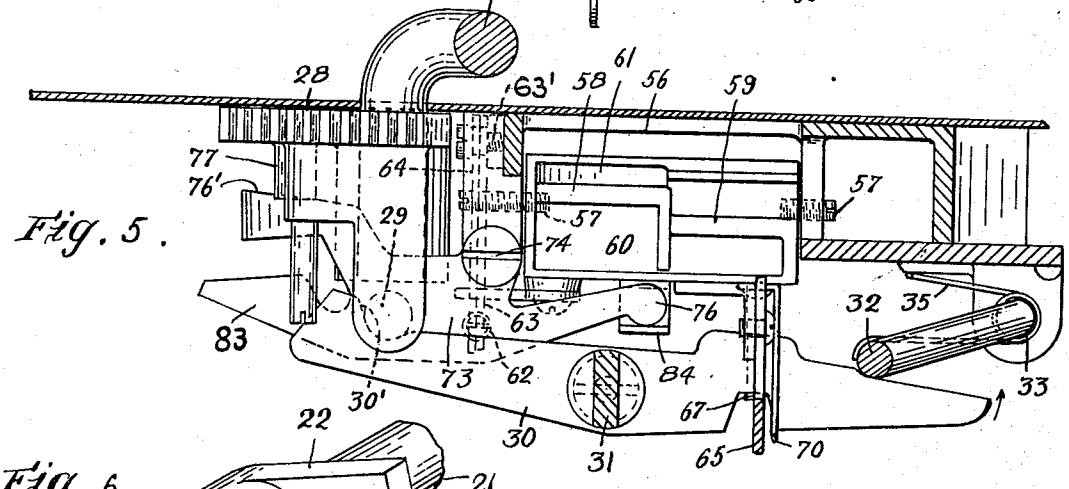


Fig. 5.

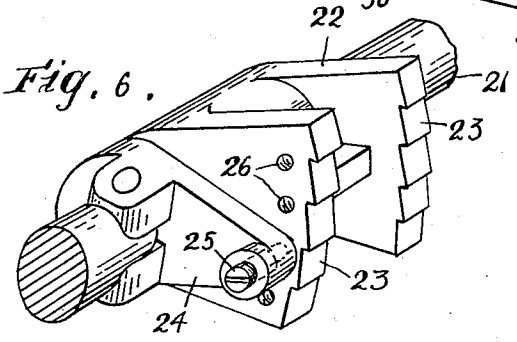


Fig. 6.

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COIN CONTROLLED MECHANISM

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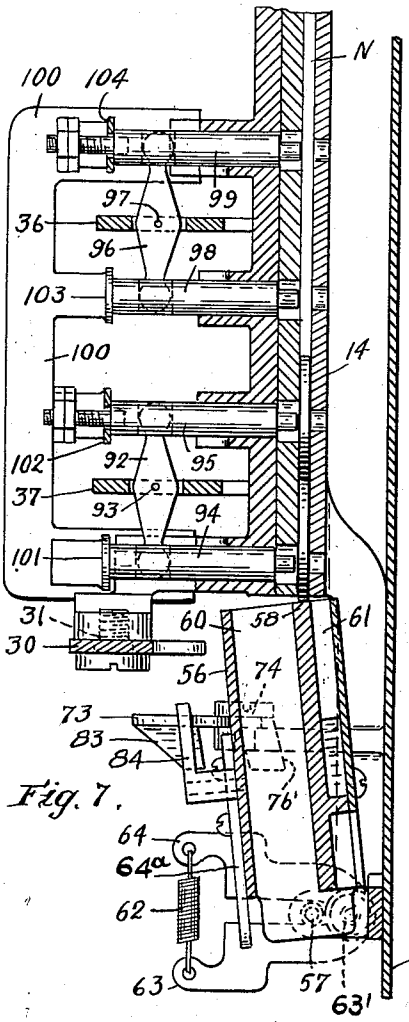


Fig. 7.

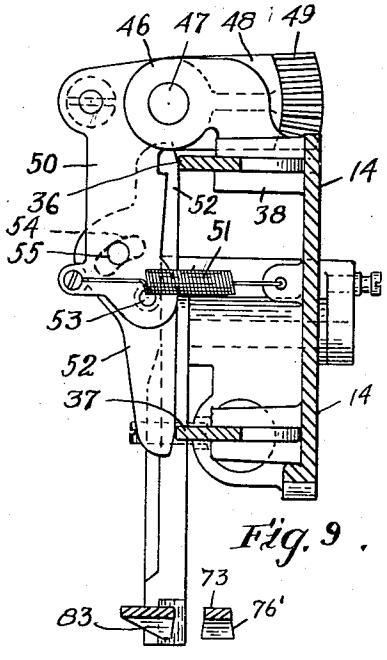


Fig. 9.

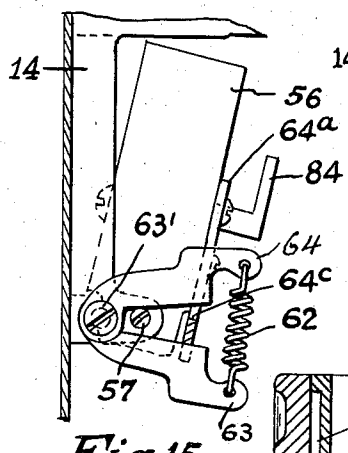


Fig. 15.

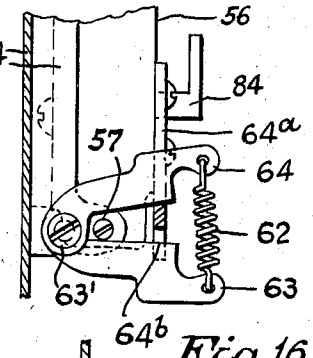


Fig. 16.

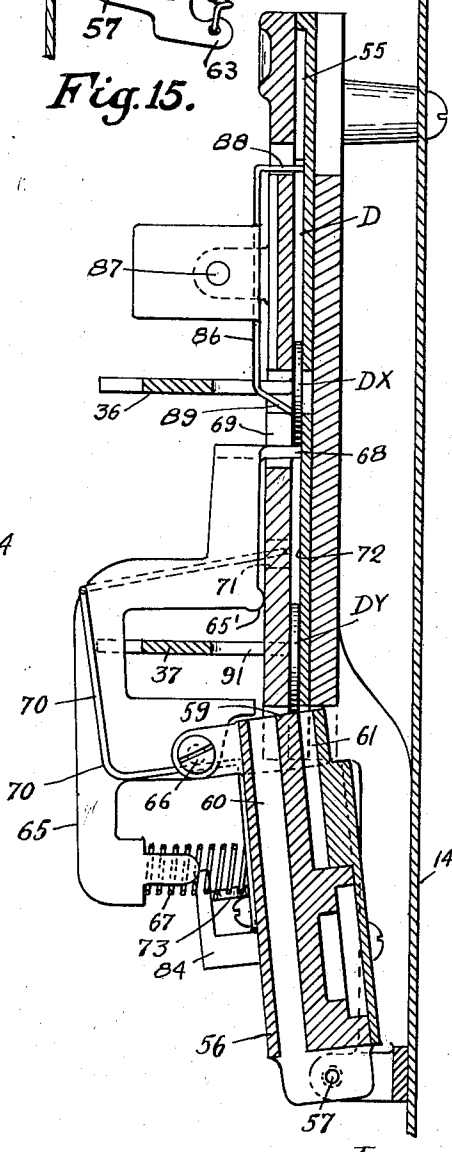


Fig. 8.

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COIN CONTROLLED MECHANISM

Filed June 9, 1939 5 Sheets-Sheet 5

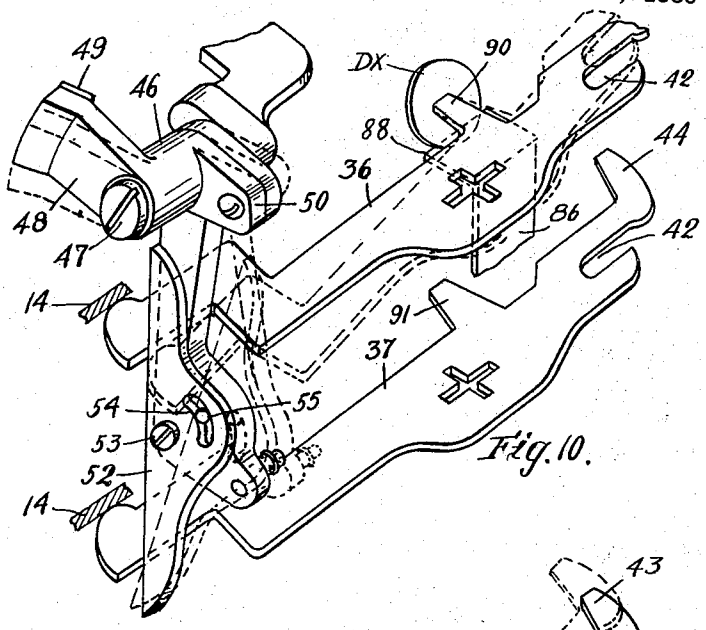


Fig. 10.

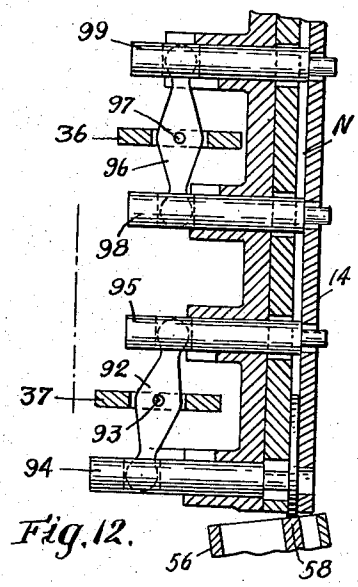


Fig. 12.

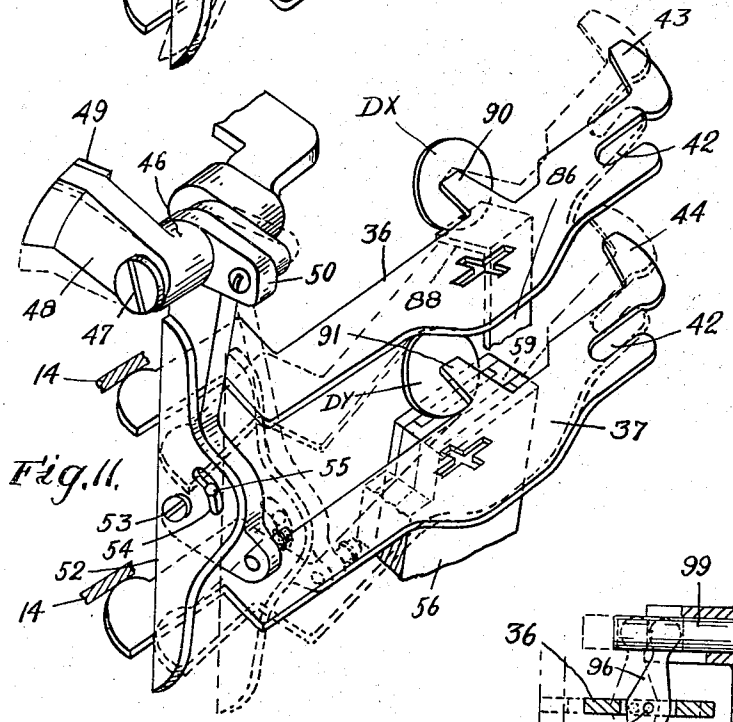


Fig. 11.

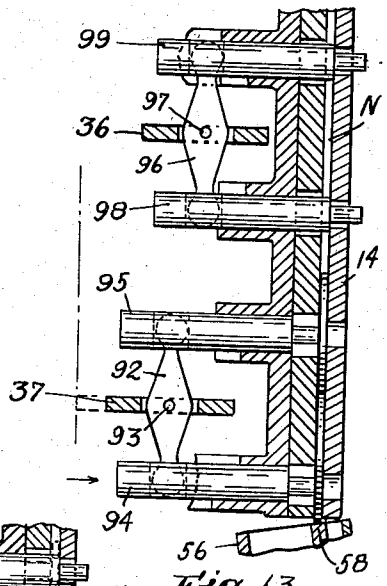


Fig. 13.

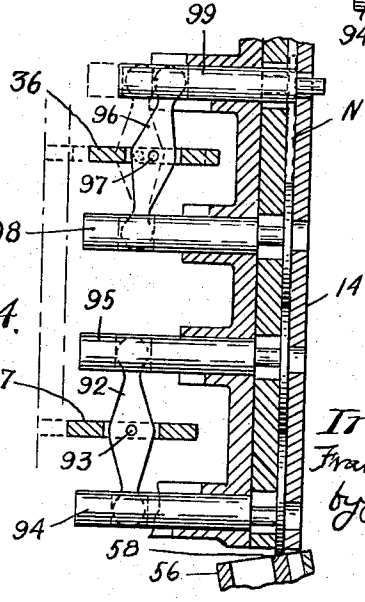


Fig. 14.

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Patented Apr. 14, 1942

2,279,664

UNITED STATES PATENT OFFICE

2,279,664

COIN CONTROLLED MECHANISM

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Application June 9, 1939, Serial No. 278,278

12 Claims. (Cl. 194—1)

This invention relates to coin controlled mechanism for vending machines which are primarily designed to dispense cigarettes in package form, but which may be employed to vend different articles which are sold at different prices.

The primary object of my invention is to provide a coin controlled apparatus which may be employed to vend articles which are sold at four different prices, viz, 5¢, 10¢, 15¢, and 20¢ and which will dispense said articles on the insertion of one, two, three, or four nickels, or on the insertion of a dime, a dime and a nickel, or two dimes, according to the price of the desired article, without any preliminary adjustment of the dispensing apparatus.

Other objects are to provide a simplified form of coin controlled locking mechanism which will enable the agent or owner of the machine readily to vary the adjustment of the controlling mechanism of any, or all of the article holding compartments, so that the articles which are contained in any particular compartment or compartments may be dispensed on the insertion of the coin or coins corresponding to the price at which the articles are to be sold.

Also to provide an apparatus which is durable and unlikely to get out of order even when subjected to the abuse which machines of this character are liable to receive.

I accomplish these objects primarily by providing a coin controlled locking device which is normally effective to prevent operative action of the ejecting device with which each of the article containing compartments is provided, but which, on being moved to a certain extent, will permit the ejecting operation to be performed with one of the ejecting devices, and which on being moved to a somewhat greater extent will permit the ejecting operation to be performed with another ejecting device and which on being moved to a third or to a fourth position will permit operation of a third or a fourth ejecting device, it being understood that means are provided which prevent more than one ejector to be operated at the same time.

In this connection means are further provided which permit independent adjustment of the intercepting means of each compartment, so that the owner of any machine may make adjustment to suit local conditions. That is, so that the machine may be readily adjusted to enable articles to be dispensed at one price from certain compartments and articles to be dispensed from other compartments at another price, and so on, to comply with the demands of the purchasing public.

Coin controlled means are further provided which are so arranged that on the insertion of a nickel an initial movement of the intercepting means will be permitted, so that the ejector of a certain compartment may be operated, also on the insertion of two nickels or a dime, a further movement of the intercepting means will be permitted, so that the ejector of another compartment may be operated. Also on the insertion of three nickels, or a nickel and a dime a still further movement of the intercepting means will be permitted, so that the ejector of still another compartment may be operated, and on the insertion of four nickels, two nickels and a dime, or two dimes and full movement of the intercepting means will be permitted, thereby permitting operation of any one of all the ejectors.

For a more complete and detailed disclosure of the invention reference is now made to the following specification in connection with the accompanying drawings, in which:

Fig. 1 is a front elevation of the lower portion of the machine illustrating the ejectors and locking means therefor.

Fig. 2 is an elevation of the right hand end of the machine illustrating the coin controlled apparatus which is employed.

Fig. 3 is a detail sectional view at line 3—3 of Fig. 1.

Fig. 4 is a plan view of the right hand end of the machine.

Fig. 5 is a sectional view at line 5—5 of Fig. 2.

Fig. 6 is a detail view of one of the intercepting abutments.

Fig. 7 is a sectional view at line 7—7 of Fig. 2.

Fig. 8 is a sectional view at line 8—8 of Fig. 2.

Fig. 9 is a sectional view at line 9—9 of Fig. 2.

Fig. 10 is detail perspective views illustrating the action when a single dime is inserted.

Fig. 11 is a similar view illustrating the action when two dimes are inserted.

Fig. 12 is a sectional view at line 7—7 of Fig. 2 illustrating the action when a single nickel has been inserted.

Fig. 13 is a similar view illustrating the action when two nickels have been inserted and

Fig. 14 is a similar view illustrating the action when three and when four nickels are inserted.

Figs. 15 and 16 are detail views showing the action of the means for maintaining the coin-support in normal position.

As indicated in Fig. 1 a casing 14 has a series of vertically disposed article containing compart-

ments 15 therein arranged in a straight row, the number of said compartments being immaterial and an ejector 16 is provided at the bottom of each compartment, each ejector having an operating handle 17. To operate, the ejector is pulled from its normal position beneath the stack of packages in the compartment, so that the bottom package falls in front of the ejector and then when the ejector is pushed back into normal position the package will be pushed from beneath the stack and will be delivered onto the shelf 18. A U-shaped shaft 19 is pivotally mounted at its ends in the end walls of the casing and each ejector has a hook 20, shown in dotted outline in Fig. 2 and in Fig. 3, which is constantly engaged with shaft 19, so that when any ejector is operated by pulling it forward, the shaft 19 will be swung forward on its pivots. The construction as thus far described is old in the art.

According to my invention I provide an intercepting device, which comprises a shaft 21 which is rotatably mounted on the frame of the machine directly over the operating handles 17 of the ejectors and extends for the entire width of the machine, and a series of segmental shaped abutments 22 are mounted on shaft 21, one in front of each ejector, each abutment having a series of abutting faces 23, which in the various adjusted positions of the abutments will, normally, or when no coin has been inserted, be immediately engaged by the outer end of each ejector when it is pulled out by its handle, so as to prevent operative movement thereof, as shown in Fig. 3. That is, all the ejectors will be locked against operative movement unless a coin has been inserted, as hereinafter described. Operative movement thereof will be permitted if shaft 21 is rotated sufficiently to swing one or more of the abutments above the path of movement of some one of the ejectors. As shown in detail in Fig. 6, each abutment is arranged for adjustment about the shaft 21, the particular means shown consisting of a bracket 24 which is fixed on shaft 21 at one side of each abutment, a screw 25 being provided in the end of bracket 24, which is arranged to engage any one of a series of holes 26 in the abutment. The arrangement shown permits adjustment of each abutment to four different positions, and it will be apparent that by adjusting the abutments to different positions, some of the ejectors may be operated if the shaft 21 is rotated so that the ends of the abutments are only raised, say 1/8 of an inch, while others may be operated when the abutments are raised 1/4 of an inch, and others may be operated after 3/8 of an inch movement and still others after a 1/2 inch movement.

It will be understood that, as is common with machines of this type, means are provided which will prevent operative movement of more than one ejector at any time, but, as such means is well known in the art of dispensing machines, disclosure of any particular means for this purpose is considered unnecessary.

Coin-controlled means are provided for moving shaft 21 according to the value of the coins inserted, when any ejector is pulled outward, as will now be described. As previously stated, whenever any one of the ejectors is pulled outward, the shaft 19 is swung forward causing rotative movement of the ends thereof in their bearings. The right-hand end of shaft 19 extends through the side of the casing and an arm 28 is secured thereto, so that, when shaft 19 is swung forwardly arm 28 will be swung forwardly also. Arm 28 has a round lug 29 which is arranged to engage an inclined face 30' on a lever 30, mounted on a pivot 31, so that as shaft 19 is pulled forward the rear end of lever 30 is swung inward, as shown in Fig. 5. A U-shaped arm 32 is pivoted at its ends 33, 34 on the casing and is normally held by spring 35 in engagement with the rear end of lever 30, so that, when lever 30 is swung inward by shaft 19, arm 32 will be swung inward also. A pair of actuating levers 36, 37 are mounted in slots formed in fixed lugs 38, 39 and 40, 41, respectively, so that each lever has a limited lateral movement therein, and each lever has a slot 42 in its rear end in which the arm 32 is located, as shown in Fig. 4, so that when arm 32 is forced inward the rear ends of levers 36, 37 will be moved in the same direction. A bracket 110, having abutments 111, 112 thereon, is fixed on the frame, said abutments being arranged to engage the rear ends 43, 44 of levers 36, 37, respectively, and hold them against rearward movement, when they are moved inward by arm 32, and the front ends of levers 36, 37 normally bear against the casing 14, as shown in Figs. 4, 9, 10 and 11.

A bevel gear 45 is mounted on the right-hand end of shaft 21 and a bell crank lever 46 is mounted on a pivot shaft 47, and one arm 48 of said lever has a gear segment 49 arranged in mesh with gear 45 and the other arm 50 has a spring 51 connecting the same to the frame (see Fig. 9), so that segment 49 is normally held in its initial position, in which position the shaft 21 is also held in initial position, so that the abutments 22 will also normally be held in an intercepting position. A transmitting lever 52 is pivotally mounted at its middle on arm 50 by means of pivot screw 53, and one end of lever 52 rests on the outer end of lever 36 and the opposite end of lever 52 rests on the outer end of lever 37. Said lever 52 has a curved slot 54, the center of curvature being at pivot 53 and a stop screw 55 extends through said slot and is secured in arm 50.

As thus arranged, if the front end of lever 37 is forced outward from the casing, it will move the end of lever 52 which it engages in the same direction. The opposite end of lever 52 will bear against the outer end of lever 36, which in turn bears against the casing 14, so that the end of lever 52 which engages lever 36 becomes a fulcrum and, as its middle portion engages arm 50 by means of its pivot 33, the arm 50 will be moved outward, causing downward movement of gear segment 49 and corresponding movement of shaft 21, thereby lifting the abutments 22 thereon to an extent which may be sufficient to permit operative movement of some one of the ejectors, assuming that an abutment is adjusted to permit such movement.

Assuming that the extent which lever 37 is moved outward is only half the extent possible, if it is moved to its fullest extent the action of lever 52 will be correspondingly increased, thereby causing increased lifting action of the abutments.

In like manner if the front end of lever 36 is moved outward and the end of lever 37 is held stationary against the casing 14, the operation above described will simply be reversed. That is, the end of lever 52 which engages the end of lever 37 will become the fulcrum and the lifting action of the abutments will be the same as that already described. It will further be apparent that if both levers 36, 37 are moved outward the extent to which the arm 50 will be moved will

be correspondingly increased. That is, lever **52** will be moved outward bodily and will either be tilted also, or if both levers **36**, **37** are moved outward to their fullest extent, lever **52** will not be tilted at all, but will be moved bodily outward so that the maximum movement of arm **50** will be secured, in which case all the abutments will be lifted above intercepting position.

The machine is provided with a passage N for nickels and a passage D for dimes, and a coin support **56** is provided which is mounted on a pivot **57**, the top end of which has a face **58**, which is normally held at the bottom end of passage N, in position to support the nickels therein, as shown in Figs. 5 and 7, and a face **59** at the bottom end of the passage D, in position to support a dime therein, as shown in Figs. 5 and 8. A coin passage **60** is provided in support **56** at one side of faces **58** and **59** and a passage **61** at the opposite side thereof, the arrangement being such that when support **56** is swung inward from its normal position, so that passage **60** registers with the bottom end of passages N and D, the coins which are supported by faces **58** or **59** will be discharged into passage **60** and will be retained or discharged into the money box, and when it is swung outward, so that passage **61** registers with passages N and D, the coins will be discharged therein and returned.

Two arms **63** and **64** are mounted at one end on a pivot **63'** supported on the frame and are connected at their opposite ends by a coil spring **62**, said spring normally holding said arms against the opposite sides of pivot pin **57** which is extended between them and acts as a stop. A stop bracket **64a** is adjustably secured to the support **56** and has oppositely disposed stop shoulders **64b**, **64c**, which respectively engage the top edge of arm **63** and the bottom edge of arm **64** between pin **57** and spring **62**, as shown in Figs. 2, 7, 15 and 16. As thus arranged spring **62** acts to return support **56** to its normal position shown in Figs. 7 and 8 when the support is swung inwardly to retain the coins, or outwardly to return them. As shown in Fig. 15, when support **56** is swung outward to return the coins, shoulder **64b** engages arm **63** and swings it downward and, as arm **64** is held against swinging downward by pin **57**, spring **62** is stretched, so that, when the operating means of support **56** is returned to normal position, spring **62** returns the support to normal position. Also, as shown in Fig. 16, when the means which operates support **56** swings it inward to retain the coins, then shoulder **64c** swings arm **64** upward, and as arm **63** is held by pin **57** from swinging upward, spring **62** is again stretched and acts to return the support **56** to normal position, when permitted to do so by the support operating means.

A coin-supporting lever **65** is pivotally mounted on support **56**, by means of pivot screw **66** and a spring **67** is interposed between the lower end of lever **65** and the side of support **56** and the upper end of lever **65** has a horizontally disposed coin support **68** which passes through an opening **69** in the casing into the dime passage D, in position to support a dime DX, as shown in Figs. 2 and 8. A projection **65'** on arm **65** normally bears against the casing, see Fig. 8. A spring arm **70** is attached to support **56** and the end thereof passes through an opening **71** in the casing, so that, when support **56** is pushed inward, the end of arm **70** engages the casing at **72**, see Fig. 8, and acts to assist the return of support **56** to normal position. A lever **73** is pivoted on screw **74** in a bracket **75** on the casing and one arm **76** thereof engages the outer side of coin support **56**. The other arm of lever **73** has a face **76'**, which is arranged to be engaged by the end of a lug **77** on arm **28**, so that when arm **28** is swung forward by shaft **19**, when an ejecting operation is performed, support **56** will be swung inward sufficiently to permit any coins which are supported thereby to be discharged through coin passage **60** into the money box, so that they will be retained. The inward movement of support **56** carries pivot **66** inward, so that lever **65** pivots on its projection **65'**, with the result that support **68** thereon will be withdrawn from beneath the dime which it may be supporting, so that the dime will fall down the passage **55** into passage **60** and be retained.

An arm **78** is pivotally mounted on the casing at **79'** and a coin return handle **80** has a lug **81** which engages arm **78** in a slot **82**, so that, when the handle is pushed inward, the lower end of arm **78** will be swung inward and will engage an inclined face **83** on the edge of lever **73**, thereby causing the inner end of lever **73** to be swung outward. A bracket **84** is fixed on support **56** in position to be engaged by the inner end of lever **73**, so that, when handle **80** is pushed inward, support **56** will be swung outward, and any coins which are supported thereby will be returned through passage **61**. This movement will also carry lever **65** bodily outward so that its coin supporting top end **68** will be withdrawn from coin supporting position, and if a coin was supported thereby it would fall into passage **61** and be returned. A spring (not shown) acts to return arm **78** to normal position when pressure on handle **80** is removed, or it may be drawn back by hand.

The machine will be supplied with a coin detector, not shown, at the coin entrance and a wire **85** is connected to arm **78** and to the returning means of the detector, so that coins or slugs retained by the detector will be returned when the coin return handle **80** is pushed inward.

As shown in Figs. 2 and 8, when a dime is inserted in passage D, it comes to rest in the position DX on the coin support **68**. A coin deflector **86** is pivoted at **87** and has a coin deflecting portion **88** at its top end and a coin engaging portion **89** at its bottom end. The deflector **86** is counter weighted, so that its top portion **88** is normally withdrawn from the coin passage and permits the coin to fall into the position DX. When this occurs, the coin engages the end portion **89** and pushes it aside, so that the top portion **88** moves across the passage leading to the position DX, as shown in Fig. 8. As a result the next dime which is inserted will be prevented from entering the passage which leads to position DX and will be deflected into a bypass passage D', indicated in dotted outline in Fig. 2, and will come to rest on the face **59**, on the top end of support **56**, in the position DY, as indicated in Fig. 2.

Lever **36** is provided with a transversely projecting finger **90** and lever **37** with a similar finger **91**, said fingers being so arranged that, when the first dime has been inserted and is in the position DX, it will be engaged by the end of finger **90**, as shown in Figs. 8 and 10, and when the second dime has been inserted and is in position DY, it will be engaged by finger **91**. When the first dime has been inserted and lever **36** is actuated by the U-shaped operating arm **32**,

the finger 90 will immediately engage the coin and will become a fulcrum for lever 36, so that the outer end of the latter will be swung outwardly from the full line to the dotted line position of Fig. 10, thereby tilting lever 52, which will then be fulcrumed at its bottom end on the end of lever 37, so that arm 50 of the bellcrank lever 46 will be moved outward to what may be considered as its second position, and the abutments 22 will be raised correspondingly, and operation of the ejector of a compartment containing 10¢ articles will be permitted.

If a second dime has been inserted, finger 91 on lever 37 will engage it, and, in like manner, will become a fulcrum for lever 37, so that the outer end of lever 37 will be moved outward when arm 32 is operated, as indicated in Fig. 11. As a result lever 52 will be moved outward bodily, thereby moving arm 50 to its extreme position, so that the abutments 22 will be raised to their fullest extent and to what may be considered as their fourth position, in which position any one of the ejectors may be operated.

As indicated in Fig. 7, the first nickel which has been inserted will rest on the face 58 of support 56 and the second, third, and fourth nickels which are inserted will rest one on the edge of the other in order. The lever 37 has an auxiliary lever 92 mounted on a pivot 93 at the middle thereof, lever 92 extending through an aperture in lever 37 at right angles thereto. Cylindrically shaped fingers 94, 95 are reciprocally mounted in apertures formed in the casing and are loosely engaged by the ends of lever 92 which extend into slots formed in said fingers. As shown in Fig. 7, the apertures in which fingers 94, 95 are mounted open into the nickel passage in such a position that finger 94 will engage the first nickel which has been inserted and finger 95 the second nickel.

Lever 36 is likewise provided with an auxiliary lever 96, which is pivoted at 97 at the middle thereof and has its ends loosely engaged with fingers 98 and 99, which are reciprocally mounted in the casing in apertures which open into the nickel passage in position to engage the third and fourth nickels which are inserted.

A bracket 100 is mounted on the casing and has four projecting abutments 101, 102, 103, 104 which are arranged to engage the outer ends of the fingers 94, 95, 98, 99 respectively, so that the latter will always be normally held in the same relative positions in which levers 92, 96 will be held at right angles to levers 37, 36.

The action of the auxiliary levers and fingers engaged thereby is similar to that described in connection with the dimes. If a single nickel has been inserted, it will be engaged by the finger 94, and, when lever 37 is actuated by arm 32, the lever 92 will be tilted slightly, as the finger 95 will merely engage the inner side of the coin passage, as shown in Fig. 12, but as the end of the lever engaged by finger 94 will be held against inward movement by the coin, it will become a fulcrum for lever 37, so that the front end thereof will impart movement to lever 52 and in turn to arm 50, so that the abutments will be lifted by shaft 21 for ¼ the distance which they can be moved, and if one of them is lifted out of position to intercept one of the ejectors, this ejector may be operated.

In like manner if a second nickel has been inserted, the lever 92 will be held from tilting by the coin, as shown in Fig. 13, so that lever 37 will be swung outward to its fullest extent and shaft 21 will be moved for ½ its distance, thereby releasing ejectors for operating compartments containing 10¢ articles, the result being the same as when a single dime has been inserted, except that it is secured through lever 37 instead of lever 36.

On the insertion of three nickels, a full movement of lever 37 will be secured and a partial movement of lever 36 will be secured, as indicated in Fig. 14. The same result will be secured on the insertion of a dime and a nickel except that a full movement of lever 36 and a partial movement of lever 37 will be secured.

In like manner if four nickels are inserted the result will be exactly the same, as when two dimes have been inserted. While the pivotal points of levers 36, 37 are not at precisely the same places when dimes are inserted as when nickels are inserted, they are the same for all practical purposes, as the effective action of the levers 36 or 37 on shaft 21 is the same.

It will thus be seen that any combination of dimes and nickels which are inserted will result in the release of an ejector of a compartment containing articles of a value corresponding to the total value of the coins inserted.

It will be noted that by adjusting the abutment which controls the ejector of any compartment according to the price of the articles which are to be dispensed from the compartment, articles of any price from 5¢ to 20¢ may be dispensed from the compartments according to the requirements of the trade, and readjustments may be readily made at any time.

I claim:

1. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended at different price values, a separate ejector for each compartment, each having operating means to move it from and to an initial position to perform a dispensing operation, an intercepting device disposed in the path of movement of each ejector as it moves from initial position to prevent operative movement thereof when no coin has been inserted, mechanism interposed between each operating means and said intercepting device for moving the latter to permit operation of a selected one of said ejectors on operative movement of its associated operating means, said mechanism including coin controlled means for varying the extent of motion of said intercepting device according to the value of the inserted coin or coins and permit ejecting action of a selected one of said ejectors for a compartment containing an article of corresponding value.

2. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended at different price values, a separate ejector for each compartment, each having operating means to move it from and to an initial position to perform a dispensing operation, an intercepting device having means for engaging each ejector to prevent operative movement thereof when no coin has been inserted, the engaging means for one of said ejectors being differently located with relation to its ejector than the engaging means of another ejector, so that partial movement of the intercepting device will permit operative movement of one ejector without permitting operative movement of another ejector, mechanism interposed between each operating means and said intercepting device for moving the latter to permit operation of a selected one of said ejectors on

operative movement of its associated operating means, said mechanism including coin controlled means for varying the extent of movement of said intercepting device according to the value of the inserted coin or coins and to permit operative action of a selected one of the ejectors for a compartment containing an article of corresponding value without permitting operative movement of another ejector.

3. In a dispensing machine having a plurality of compartments for containing articles to be vended at different price values, a control device movable from one position to other positions corresponding to different price values, actuating means, coin controlled means including a plurality of levers adapted to be actuated by said actuating means and each arranged for operative association with coins of different value which control the extent of operative movement of each lever when actuated by said actuating means, and means for additively transmitting the combined operative movement of said levers to said control device to move the latter.

4. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to permit operative movement of any selected ejector, operating means for each of said ejectors and connections between each operating means and said intercepting device to move the latter to permit operative movement of a selected ejector, coin controlled means included in said connections comprising an actuating lever having one arm engaged with each of said operating means and the other arm engaged with said intercepting device and means for varying the position of the fulcrum of said lever by the insertion of a coin or coins in position to be engaged thereby when actuated, to vary the extent of actuating movement to be imparted to said intercepting device by said lever according to the value of the coin or coins which are inserted.

5. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to different positions to permit operative movement of a selected ejector, operating means for said ejectors and connections between the same and said intercepting device, said connections including an actuating lever having one arm engaged with said operating means and its other arm engaged with said intercepting device, means for providing a fulcrum for said lever, to permit effective action thereof, by inserting a coin in position to be engaged thereby, whereby a predetermined movement of said intercepting device may be imparted thereto, means for changing the position of the fulcrum of said lever by the insertion of a second coin in position to be engaged thereby to impart a further movement of said intercepting device, whereby the extent of movement of said intercepting device may be varied according to the value of the coin or coins inserted.

6. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to a position to permit operative movement of a selected ejector, operating means for said ejectors and connections between the same and said intercepting device, said connections including a pair of actuating levers, each having an arm engaged with said operating means and an arm engaged with said intercepting device and said levers being so arranged that when no coin has been inserted said levers will be moved laterally by said operating means without transmitting effective movement to said intercepting device, means for holding the first coin inserted in position to act as a fulcrum for one of said levers and for holding the second coin inserted in position to act as a fulcrum for the other of said levers, means interposed between the arms of said levers which are engaged with said intercepting device for moving the latter to a certain extent when one of said levers is actuated by said operating means, after the first coin has been inserted and for moving said intercepting device to a further extent when the other lever is actuated by said operating means after the second coin has been inserted, whereby operative movement of one selected ejector will be permitted on the insertion of the first coin and operative movement of another selected ejector will be permitted on the insertion of the second coin.

7. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to different positions to permit operative movement of a selected ejector, operating means for each of said ejectors and connections between each operating means and said intercepting device for actuating the latter, said connections including an actuating lever having two arms one of which is engaged with each operating means and the other of which is engaged with said intercepting device, said lever having a projection intermediate said arms, means so arranged that when a predetermined coin is inserted it will be positioned for engagement by said projection, to permit the latter to act as a fulcrum for said lever and the lever to actuate said intercepting device when an operating means is actuated.

8. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to a position to permit operative movement of a selected ejector, operating means for said ejectors and connections between the same and said intercepting device, said connections including an actuating lever having two arms, one of which is engaged with said operating means and the other of which is engaged with said intercepting device, said lever being so arranged that when no coin has been inserted said lever will be moved laterally by said operating means without transmitting effective movement

to said intercepting device, an auxiliary lever pivotally mounted at the middle thereof on said actuating lever between the arms thereof, coin engaging means at each end of said auxiliary lever, means to limit the tilting movement of said auxiliary lever, means to position the first coin inserted for engagement by one of said coin engaging means and to position the second coin inserted for engagement by the other coin engaging means, whereby the first coin will hold one end of the auxiliary lever against movement and act as a fulcrum for said actuating lever, to permit the same to transmit limited movement to said intercepting device, while permitting some lateral movement thereof, and the second coin, in conjunction with the first coin, will hold the auxiliary lever against tilting movement and will prevent lateral movement of the actuating lever and permit the same to transmit further movement to the intercepting device whereby operative movement of one selected ejector may be permitted on the insertion of one coin and of another ejector on the insertion of the second coin.

9. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to different positions to permit operative movement of a selected ejector, operating means for said ejectors and connections between the same and said intercepting device, said connections including a bellcrank lever having one arm engaged with said intercepting device, a pair of actuating levers arranged side by side adjacent each other, actuating means cooperating with said ejector operating means and engaging adjacent ends of said levers for moving the same simultaneously when any ejector is operated, a transmitting lever pivotally mounted at its middle on the other arm of said bellcrank lever and having its opposite ends respectively engaged by the other arms of said actuating levers, said actuating levers being loosely supported so that when no coins have been inserted they will be moved laterally by said actuating means without actuating said transmitting lever operatively, coin engaging means on said actuating levers arranged for engagement with different coins when inserted, to form fulcrums, therefor means to deliver the first coin inserted in position to be engaged by the coin engaging means of one of said levers and to deliver the second coin inserted in position to be engaged by that of the other of said levers, whereby when one of said levers engages a coin said transmitting lever will be moved to actuate said intercepting device to one position and when both of said levers engage coins, said transmitting lever will be moved to actuate said intercepting device to another position.

10. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment movable from and to its normal position to perform an ejecting operation, an intercepting device normally disposed to prevent operative movement of all of said ejectors and movable to different positions to permit operative movement of a selected ejector, operating means for said ejectors and connections between the same and said intercepting device, said connections including a bellcrank lever having one arm engaged with said intercepting device, a pair of actuating levers arranged side by side adjacent each other and having actuating means cooperating with said ejector operating means and engaging adjacent ends of said levers for moving the same simultaneously when an ejector is operated, a transmitting lever pivotally mounted at its middle on the other arm of said bellcrank lever and having its opposite ends respectively engaged by the opposite ends of said actuating levers, said actuating levers being loosely supported so that when no coins have been inserted they will be moved laterally by said actuating means without actuating said transmitting lever operatively, coin engaging projections on said actuating levers arranged for engagement respectively with the first and second coin of the same denomination which are inserted, means to deliver the first coin inserted in position to be engaged by the coin engaging means of one of said levers and to deliver the second coin inserted in position to be engaged by that of the other of said levers, an auxiliary lever pivotally mounted at its middle portion on an intermediate portion of each of said actuating levers, each auxiliary lever having coin engaging means engaged with the ends thereof and arranged for engagement respectively, with four coins of a lower denomination when inserted, means to deliver the four coins of lower denomination when inserted in position to be engaged by the coin engaging means of said auxiliary levers respectively, whereby different combinations of coins may be inserted and will act as pivotal supports for said actuating levers, to permit actuation of said transmitting lever and corresponding actuating of said intercepting device according to the value of the coins inserted.

11. In a coin controlled dispensing machine having a series of compartments for containing articles to be vended, an ejector for each compartment, each ejector having operating means to move it from and to its normal position, to perform an ejecting operation, an intercepting device comprising a shaft having a series of abutments extending transversely therefrom into the path of movement of each ejector, respectively, whereby operative movement of each of said ejectors is normally prevented, said abutments being angularly displaced relatively about said shaft, whereby on partial rotation of said shaft one or more of said abutments may be moved out of intercepting position while others remain in intercepting position, connections between each ejector operating means and said shaft for causing partial rotation of said shaft, said connections including an operating lever having one arm engaged with said shaft, a transmitting lever mounted at an intermediate point therein on the other arm of said operating lever, a pair of actuating levers arranged to engage at their adjacent ends the opposite ends of said transmitting lever, means for holding the engaging end portions of said actuating levers against movement in one direction, coin engaging means on intermediate portions of said actuating levers, means to deliver successive coins which are inserted in position to be successively engaged by the coin engaging means of said actuating levers, operating means for simultaneously engaging the opposite ends of said actuating levers, and cooperating with each of said ejector operating means to actuate the same when an ejector is operated whereby when no

coin has been inserted said actuating levers will be ineffective in their action on said transmitting lever and when one or more coins have been inserted said coin engaging means will engage the same and act as a fulcrum for the actuating levers and will move the transmitting lever to actuate the operating lever and thereby move said shaft to correspond to the value of the coins inserted.

12. In a dispensing machine having a plurality of compartments for containing articles to be vended at different price values, a control device movable from one position to a plurality of other positions corresponding to different price values, means for moving said device, actuating mechanism, and means controlled by the coin or coins inserted for transmitting the movement of said mechanism to said moving means in proportion to the value of the coin or coins inserted whereby said device is moved to one of said other positions corresponding to different price values.

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