O. JAEGER.

COIN CONTROLLED MECHANISM.

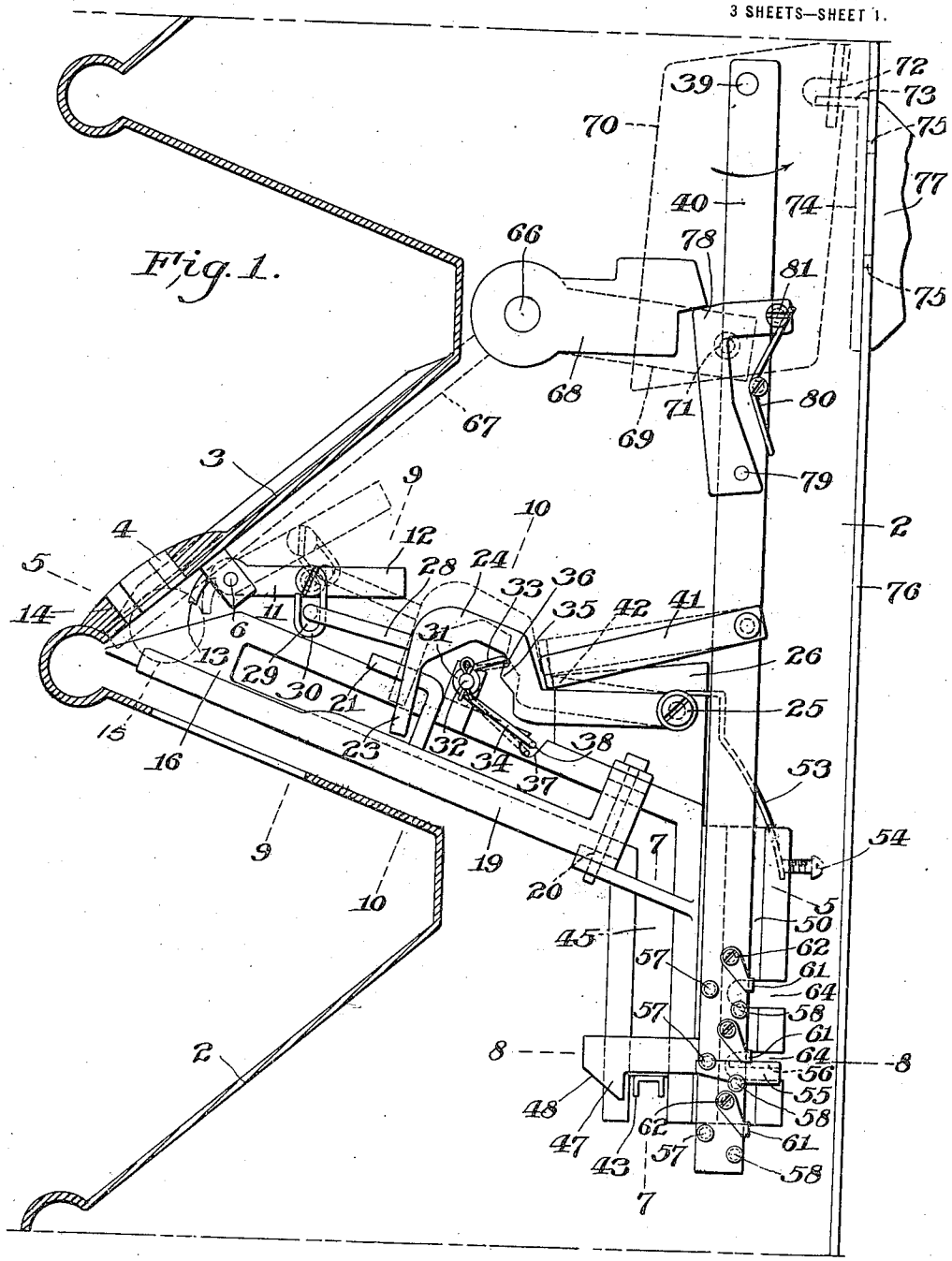
APPLICATION FILED OCT. 9, 1917.

1,322,450.

Patented Nov. 18, 1919.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

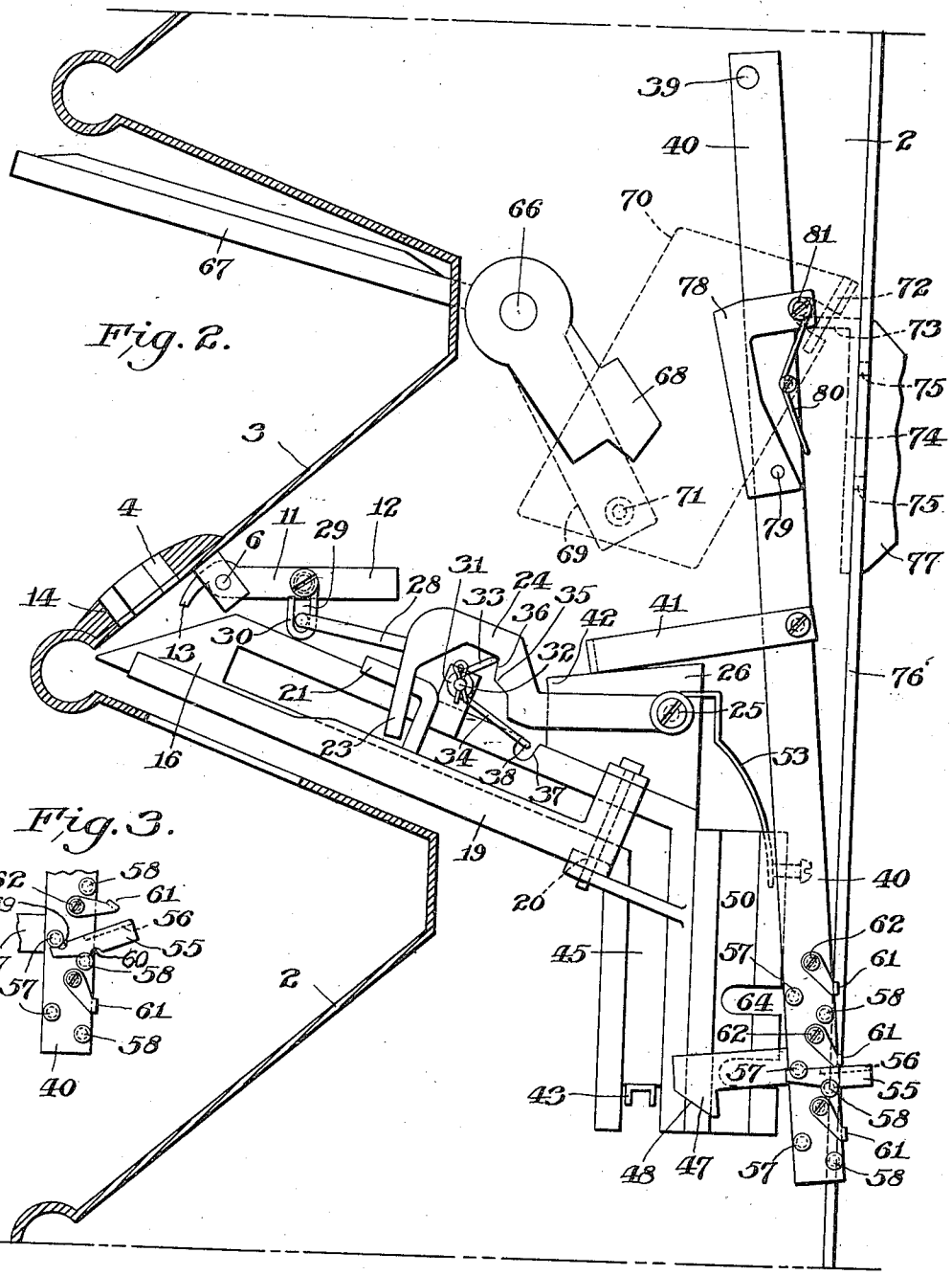


Fig. 3.

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3 SHEETS—SHEET 3.

Fig. 4.

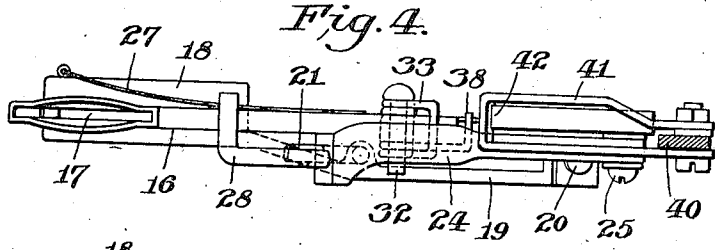


Fig. 5.

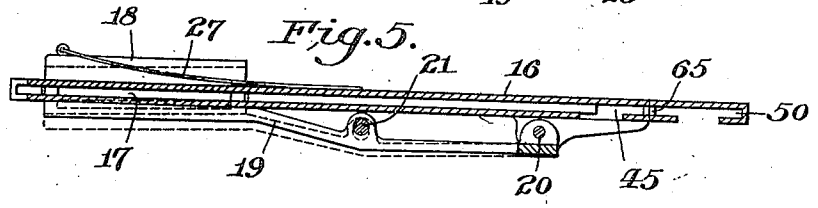


Fig. 6.

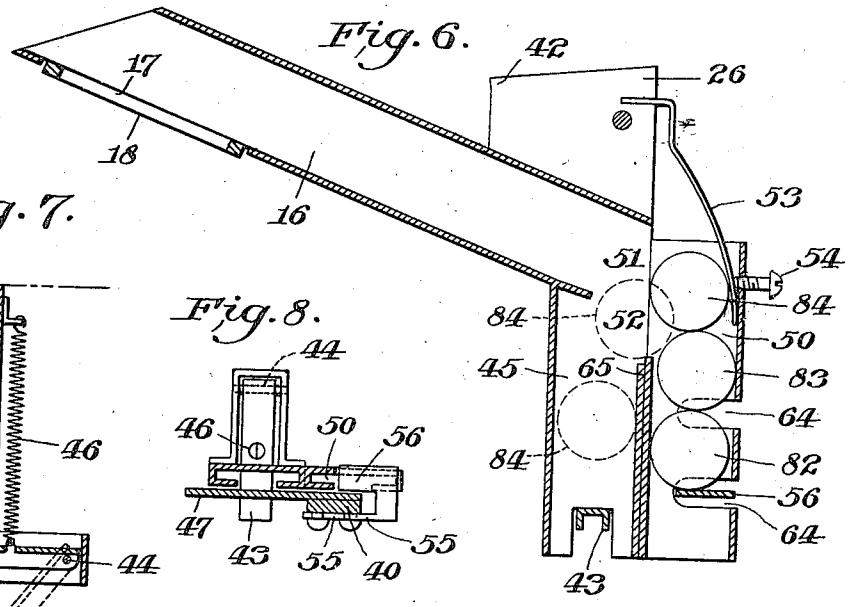


Fig. 7.

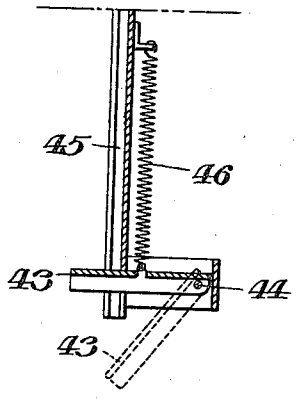


Fig. 8.

Fig. 9.

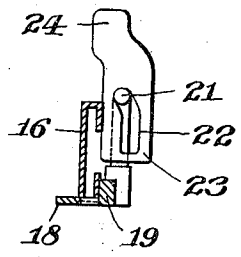
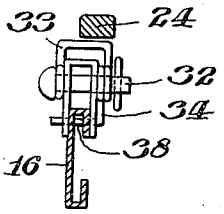


Fig. 10.



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UNITED STATES PATENT OFFICE.

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COIN-CONTROLLED MECHANISM.

1,322,450. Specification of Letters Patent. Patented Nov. 18, 1919.

Application filed October 9, 1917. Serial No. 195,523.

To all whom it may concern:

Be it known that I, OTTO JAEGER, a citizen of the United States, residing at Elkins Park, in the county of Montgomery, State of Pennsylvania, have invented certain new and useful Improvements in Coin-Controlled Mechanism, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in coin-controlled mechanism for vending machines.

The objects of my invention are: first, to provide a mechanism of novel, simple and efficient construction whereby a coin or coins inserted into the same may be caused to control the operation of a part or member for any desired purpose; and, second, to provide a means adapted to be adjusted to receive coins in sets of two or more each and to control the operation of a part or member by the last coin of each set inserted into the mechanism.

The invention is particularly adapted for use in vending machines wherein it is desired to change the amount of the purchase price of the commodity to be vended, by adjusting the mechanism to require the insertion of a different number of coins of a given value for the operation thereof.

With the foregoing objects in view, my invented mechanism consists of the elements and the combinations of them hereinafter described and claimed.

In the accompanying drawings illustrating my invention,

Figure 1 is a vertical section of a frame or casing supporting a coin controlled mechanism embodying my invention, showing the parts in the normal position by full lines and showing certain parts moved from the normal position by dotted lines.

Fig. 2 is a view similar to Fig. 1, showing certain parts moved from the normal position.

Fig. 3 is a detail showing the adjustable device for supporting coins within the coin receiver.

Fig. 4 is a plan view of the inclined coin guide and adjuncts.

Fig. 5 is a section through the inclined coin guide, on line 5—5 of Fig. 1.

Fig. 6 is a vertical section through the two coin guides and the coin receiver.

Fig. 7 is a sectional detail of the vertical coin guide, on line 7—7 of Fig. 1.

Fig. 8 is a sectional detail of the vertical coin guide, the coin receiver and adjuncts, on line 8—8 of Fig. 1.

Figs. 9 and 10 are sectional details of the inclined coin guide and adjuncts, on lines 9—9 and 10—10, respectively, of Fig. 1.

Referring to the drawings, 2 designates a frame or casing having a forward wall 3 provided with a coin slot 4 for the reception of a coin to be inserted therein by hand for the control and operation of the mechanism hereinafter described. The central portion of the slot 4 is made wider than the end portions thereof, so that a coin may be pushed by the aid of a finger down through the slot. The casing 2 may be of any suitable shape and size for its intended purpose.

Fulcrumed, at 6, on a bracket on the forward wall 3 of the frame 2 is a lever 11 having an arm 12 which extends away from the wall 3, and having an arm 13 which extends to a position back of one end of the slot 4. The lever-arm 13 is located with respect to the other end 14 of the slot 4, so that when a coin, indicated at 15, of the proper dimensions is inserted into the slot 4, the coin 15 will engage the lever arm 13 and the end 14 of the slot 4 and move the lever 11 from the normal position, shown by full lines in Fig. 1, to the position shown by dotted lines therein, whereupon the coin 15 will escape the lever arm 13 and fall by gravity from the slot 4, and permit the lever 11 to return by gravity to the position shown by full lines.

The relative positions of the lever arm 13 and the end wall 14 of the slot 4 are such that only a coin of a predetermined diameter (which I shall herein term a true coin) will move the lever to the dotted line position. Inserted coins of the lesser diameter (which I shall herein term false coins) either will not move the lever 11 at all or will not move it as far as the dotted line position; and the walls of the slot 4 prevent the insertion of coins of greater diameter than true coins.

After a true coin 15 has been pushed into the slot 4 far enough to raise the lever arm 12 to the dotted line position and escapes the lever arm 12 and drops by gravity it is received into the upper end of an inclined

coin guide 16 adapted to maintain the faces of the coin in vertical position and to permit the coin to roll down through the same.

The bottom or floor of the upper portion of the coin guide 16 is provided with an opening 17 (Figs. 4, 5 and 9) through which false coins inserted into the slot 4 are allowed to drop by gravity and are thereby prevented from passing down through the guide 16. The opening 17 is closed by a door 18 carried by an arm 19 which is pivoted, at 20, to one side of the guide 16, and which is adapted to be moved from the position shown by full lines in Fig. 5 to the position shown by dotted lines therein to close the opening 17. When the door 18 is in the dotted line position, it forms a continuation of the bottom or floor of the guide 16; and, when the door 18 is in the full line position, true coins inserted into the slot 4 will roll down through the guide 16.

The door arm 19 is provided with a projecting pin 21 which extends through a slot 22 formed in the downwardly extending end 23 of a part or arm 24 which is pivoted, at 25, on a plate or bracket 26 rising from the coin guide 16. The upper end of the slot 22 is inclined, as shown, to cause its walls to engage the pin 21 and move the door 18 from the opening 17 to the full line position, shown in Fig. 5, when the arm 24 is lowered to the normal or full line position. In order to insure the movement of the door 18 to the normal or full line position when the arm 24 is lowered to the full line position, I provide a spring 27 one end of which is secured to one side of the coin guide 16 and the other end of which is engaged with the door 18, tending to move it to the full line position and causing the pin 21 to press the extension 23 of the arm 24 against one side of the coin guide 16, the fitting of the arm 24 being loose to permit it to be easily raised and lowered.

The arm 24 has a projecting pin 28 which extends into a slot 29 in a link 30 which has its upper end pivoted to the lever arm 12 and which thus connects the lever 11 and arm 24. The purpose of this connection is to cause the lever 11 to raise the arm 24 from the normal or full line position to the dotted line position, when a true coin 15 is inserted into the slot 4, to thereby close the opening 17, as previously explained, and prevent the true coin from escaping therethrough, and cause the true coin to roll down through the coin guide 16.

When the arm 24 is raised to the dotted line position it is retained therein by a trip device 31 which is pivoted, at 32, to a bracket on the coin guide 16 and which is provided with two projecting arms 33 and 34. The arm 34 has a lateral extension 38 which is adapted to move up and down within a slot 37 formed in the coin guide 16 and within the path of a coin rolling through the guide 16; and the arm 33 is adapted to engage a shoulder 35 formed on the arm 24 to temporarily hold it in the dotted line position, as will be presently explained. When the trip device 31 is in the normal position, shown by full lines, the arm 33 rests against a face 36 of the arm 24 and the extension 38 on the arm 34 is above the bottom of the slot 37. When the arm 24 is raised to the dotted line position by the insertion of a coin 15 into the slot 4, the shoulder 35 is raised above the top of the arm 33 and the projection 38 on the arm 34 drops down to the bottom of the slot 37 and the upper end of the arm 33 moves beneath the shoulder 35, so that when the coin 15 inserted into the slot 4 to raise the arm 24 escapes the lever arm 13, the shoulder 35 will rest upon the arm 33 and prevent the return of the arm 24 to the normal or full line position. After the coin escapes the lever arm 13 and rolls down through the coin guide 16, the coin, in passing the projection 38, on the arm 34 will move the same upwardly and thereby move the arm 33 from engagement with the shoulder 35 and thus free the arm 24 and permit it to return to the normal or full line position by gravity.

The opening 17 in the coin guide 16 is located between the slot 4 and the trip device 31; and the purpose of providing the trip device 31 is to insure the passage of a true coin down through the guide 16 by preventing the return of the arm 24 to the normal or full line position and the consequent moving of the door 18 from its position closing the opening 17, as previously explained, until the coin 15 has passed over the opening 17 and the door 18 closing the same.

Pivoted, at 39, to one side of the frame of casing 2 is an arm 40 which extends downwardly from its pivot, and which is movable from its normal position shown in Fig. 1 to the position shown in Fig. 2, and, when so moved and then released, it is adapted to return to the position shown in Fig. 1, by gravity. Means, hereinafter described, is provided which tends constantly to move the arm 40 in the direction of the arrow, when the mechanism is in the normal position shown by full lines in Fig. 1.

The arm 40 is prevented from moving in the direction of the arrow by a latch 41 which is pivoted to the arm 40 and which normally engages a tooth or shoulder 42 formed on the plate or bracket 26. The latch 41 extends over the pivoted arm 24, and the latch is adapted to be raised by the arm 24 to disengage it from the tooth 42 when the arm 24 is raised to the dotted line position shown in Fig. 1.

The arm 40 is also prevented from moving in the direction of the arrow by a con-

trolling member 43, which is pivoted, at 44, to a bracket on the lower end of a vertically disposed coin guide 45 which is formed on or secured to the coin guide 16 and which will be referred to hereinafter. The member 43 is held normally in the position shown by full lines by a light spring 46 which has its lower end attached to the member 43 and its upper end attached to the guide 45 and which is adapted to be moved to the position shown by dotted lines in Fig. 7, against the action of the spring 46 by a coin descending through the guide 45. When the member 43 is in its normal or full line position, its free end projects through the coin guide 45 and is adapted to be engaged by a hook 47 which projects from the lower portion of the arm 40 and which is normally spaced a slight distance from the member 43, so that, after the latch 41 is raised from the shoulder 42, the arm 40 will move a slight distance in the direction of the arrow, and its further movement will be prevented by the engagement of the hook 47 with the member 43, until the member 43 is depressed to the dotted line position shown in Fig. 7, whereupon the arm 40 will be free to be moved to the position shown in Fig. 2, as will be hereinafter described. When the arm 40 returns to the position shown in Fig. 1, the beveled end 48 of the hook 47 escapes the same, and, thereafter, the member 43 springs back to the normal position shown in Fig. 1 to be again engaged by the hook 47 for the prevention of the movement of the arm 40 in the direction of the arrow.

The coin guide 45 extends downwardly from beneath the lower end of the coin guide 16; and, secured thereto is a vertically disposed coin receiver 50 which extends immediately adjacent to the coin guide 45. The upper end of the coin receiver 50 is in communication with the lower end of the coin guide 16 and the upper end of the coin guide 45 through openings 51 and 52, respectively, so that coins may pass from the coin guide 16 to the receiver 50 through the opening 51, and from the receiver 50 to the guide 45 through the opening 52, as will be hereinafter explained. The coins in passing from the coin guide 16 to the receiver 50 pass over the opening 52 and they are prevented from falling through the same and into the coin guide 45 by the momentum acquired in rolling down through the guide 16, so that each coin descending through the guide 16 enters the upper portion of the receiver 50 and, when permitted to do so, descends therein.

The upper portion of the receiver 50 is provided with a spring impact arm or member 53 which faces the openings 51 and 52, as shown in Fig. 6 and against which the coins strike as they enter the receiver 50 from the guide 16. The upper end of the arm 53 is secured to the bracket 26 and its lower or free end is adapted to be adjusted toward the openings 51 and 52 by a screw 54 screwed into and through the outer wall of the receiver 50 and against the inner end of which the arm bears in all positions of the screw.

The arm 40 extends adjacent to the receiver 50 and it is provided with an adjustable side plate 55 having a horizontal flange 56 which is adapted to extend into the coin receiver 50 or below the open bottom thereof in accordance with the position of the plate 55, to support coins within the receiver 50. The arm 40 is provided with a plurality of spaced pairs of projecting pins 57 and 58 and the plate 55 is adapted to be received between the pins 57 and 58 of any pair to hold the plate 55 in different positions of vertical adjustment on the arm 40. The upper and lower edges of the plate 55 are provided with depressions 59 and 60 which receive the pins 57 and 58, respectively, and the outer ends of the pins 57 and 58 are provided with suitable heads between which and the arm 40 the plate 55 is received. When the plate 55 is engaged with any pair of pins 57 and 58 it is retained in engagement therewith by a dog 61 which is pivoted at 62 on the arm 40 and which is engaged with the top of the plate 55 as clearly shown in Figs. 1 and 2, a dog 61 being provided for each pair of pins 57 and 58. When it is desired to remove the plate 55 from the arm 40, the dog 61 engaged therewith is moved to the position shown in Fig. 3 which permits the plate 55 to be moved to the position shown in Fig. 3 with respect to the pins 57 and 58 and from which it may then be removed from the arm 40. The plate 55 may then be engaged with any one of the pairs of pins 57 and 58 by a reversal of the operation just described. It will thus be seen that the plate 55 may be adjusted vertically to different positions on the arm 40. When the plate 55 is engaged with the lowermost pair of pins 57 and 58, its flange 56 is directly beneath the open bottom of the coin receiver 50; and when the plate 55 is engaged with one of the upper pairs of pins 57 and 58, its flange 56 extends into a slot 64 formed in the receiver 50, a slot 64 being provided adjacent to each pair of pins 57 and 58 above the lowermost pair. When the arm 40 is in the position shown in Fig. 1, the flange 56 of the plate 55 will support coins within the receiver 50; and when the arm 40 is moved to the position shown in Fig. 2, the flange 56 will clear the receiver 50 and permit coins previously supported thereby to descend through the receiver and fall from the open bottom thereof.

The space between each pair of pins 57

and 58 is substantially equal to the diameter of a true coin, so that when the flange 56 is supporting a given number of coins within the receiver 50, in accordance with the position of the plate 55 on the arm 40, the top of the uppermost coin will always bear the same relation to the top of the inner wall 65 of the receiver 50 or the bottom wall of the opening 52, and this relation is such that the next coin descending through the guide 16 will enter the receiver 50, strike the top of the uppermost coin therein and the impact member 53 and then roll by gravity back over the top of the uppermost coin and over the top of the wall 65 and through the opening 52 and into the upper portion of the coin guide 45, and descend through the guide 45. When the plate 55 is set on the arm 40 in the position shown in Figs. 1 and 2, the first two true coins inserted into the mechanism will enter the receiver 50 and remain therein supported by the flange 56 until the third true coin is inserted; and the third inserted true coin will then enter the top of the receiver 50, engage the top of the uppermost coin therein and then pass into and descend through the guide 45, as previously explained. I shall now describe the means for moving the arm 40 in the direction of the arrow.

Pivoted at 66 to the frame 2 is a door 67; and projecting from the respective sides of the door 67, at the respective sides of the frame or casing 2, are arms 68 and 69 as shown. The arm 69 carries a weight 70 the lower end of which is pivoted thereto, at 71, and the upper end of which is provided with a pin 72 which penetrates and bears against an arm 73 on the upper end of a guide plate 74. The plate 74 is guided by pins 75 which extend therefrom through a slot in a vertical wall 76 of the frame or casing and into a block 77 fitted against the side of the wall 76 opposite to the plate 74, whereby the weight 70 may descend and move the arm 69 and its door 67 on the pivot 66 from the normal position shown in Fig. 1 to the position shown in Fig. 2. When the parts are set in the normal position to be operated by coins inserted into the slot 4, the arm 68 bears upon the upper end of a dog 78 whose lower end is pivoted, at 79, to the arm 40. The dog 78 is pressed toward the pivot 66 by a suitable spring 80 carried by the arm 40; and the movement of the dog 78 by the spring 80 is limited by a pin 81 projecting from the dog 78 and engaging the arm 40. The connections between the dog 78 and the arm 40 and the location of the pivot 39 with relation to the engagement of the arm 68 with the dog 78 are such that the pressure of the weight 70 holds the pin 81 of the dog 78 against the arm 40 and tends to move the arm 40 in the direction of the arrow and thereby holds the latch 41 against the shoulder 42, which prevents the arm 40 from moving, until the latch 41 is raised to release the arm 40, as previously explained.

When the latch 41 and member 43 are operated to release the arm 40, the arm 68 moves the arm 40 from the position shown in Fig. 1 to the position shown in Fig. 2; and, after the arm 68 escapes the dog 78, the arm 40 returns by gravity to the position shown in Fig. 1. When the door 67 is returned to the position shown in Fig. 1, and is held there by the latch 41, the end of the arm 68 engages the dog 78 and forces it back against the action of the spring 80 until the end of the arm 68 escapes the top of the dog 78, whereupon the dog 78 springs back to its normal position beneath the arm 68, and then, when the door 67 is released, the arm 68 is again pressed by the weight 70 down upon the dog 78 and again tends to move the arm 40 in the direction of the arrow, for a succeeding operation.

The complete operation of the mechanism, briefly described, is as follows:

Normally the parts occupy the positions shown by full lines in Fig. 1; and, when the plate 55 is adjusted on the arm 40 to the position shown in Fig. 1, it is adjusted to cause the mechanism to be controlled and operated by a set of three true coins successively inserted into the slot 4. As each coin of the set is inserted into the slot 4 it engages the lever arm 13 and moves the lever 11 to the dotted line position, shown in Fig. 1, and thereby causes the link 30 to raise the arm 24 to the dotted line position and to be engaged by the arm 33 of the trip device 31, and the arm 19 to be moved, by the raising of the arm 24, to move the door 18 to the dotted line position shown in Fig. 5 to close the opening 17 in the bottom of the coin guide 16. The arm 24 in being raised to the dotted line position, raises the latch 41 from the shoulder 42 to free the arm 40, and the pressure of the arm 68 upon the dog 78 moves the arm 40 a slight distance in the direction of the arrow, to bring the hook 47 into engagement with the member 43 and to move the latch 41 over the top of the shoulder 42. As the coin escapes the lever arm 13, the lever arm returns by gravity to the full line position, leaving the arm 24 supported in the dotted line position, by the arm 33, the coin drops into the coin guide 16 and rolls downwardly therethrough and over the door 18. As the coin passes the trip device 31, the coin engages the arm 38 of the device and raises it on its pivot 32 to move its arm 33 from beneath the shoulder 35 and thereby permit the arm 24 to fall back by gravity to the normal or full line position, leaving the latch 41 resting on the top of the shoulder and moving the door 18 from the opening 17 for false coins to

fall therethrough, should they be inserted into the slot 4. Thus the three coins of the set will roll down the coin guide 16 successively and be discharged from the lower end thereof through the opening 51 into the upper portion of the receiver 50. The second coin 83 of the set descends through the receiver and rests upon the first coin 82, as shown in Fig. 6. The third coin 84 of the set, when it enters the receiver 50, strikes the top of the second coin 83 and the impact member 53, as shown by full lines in Fig. 6, and then rebounds and rolls by gravity back over the coin 83 and down through the opening 52 into the coin guide 45, and thereafter descends through the coin guide 45, as shown by dotted lines. As the third coin 84 of the set descends through the guide 45, it strikes the member 43 and depresses it to the position shown by dotted lines in Fig. 7 and then escapes it and drops by gravity from the guide 45. As the member 43 is thus depressed it frees the hook 47 and thereby frees the arm 40 and permits the weight 70 to move the door 67 and arm 40 to the position shown in Fig. 2. As the arm 40 moves to the position shown in Fig. 2, the flange 56 is moved out from beneath the coins 82 and 83 and they fall by gravity from the open bottom of the receiver 50. This done, the arm 40 returns by gravity to the position shown in Fig. 1, automatically reëngaging the latch 41 with the shoulder 42 and placing the hook 47 in relation to the member 43, as shown in Fig. 1, while the weight 70, door 67 and arm 68 remain in the position shown in Fig. 2. The door 67 is then moved by hand down to the normal position shown in Fig. 1, thereby raising the arm 68 from the position shown in Fig. 2 to the position shown in Fig. 1, reëngaging the arm 68 with the dog 78, and leaving the parts set in the normal position shown by full lines in Fig. 1, to be again operated by another set of three true coins inserted into the slot 4.

By adjusting the plate 55 and its flange 56 vertically on the arm 40, as previously explained, one or more coins may be received within the receiver 50 and supported therein in a manner to cause the next inserted coin to pass through the opening 52 and into the coin guide 45 for the depression of the member 43; and, therefore, it will be readily understood that the mechanism may be adjusted to vary the number of coins required in the set to operate the mechanism.

The door 67 herein shown is designed to close an opening leading to a compartment in the frame or casing 2, when the door is in the position shown in Fig. 1, and to open the compartment when moved to the position shown in Fig. 2, so that a commodity to be vended may be placed within the compartment and removed therefrom through the opening controlled by the door 67, after the insertion into the slot 4 of the number or set of true coins required for the operation of the mechanism to open the door 67.

Instead of employing the controlling member 43 to control the door opening mechanism herein shown and described, the member 43 may be employed to control the operation of any desired devices upon the insertion of the proper number or set of true coins, which the mechanism is set to receive for the operation of the member 43.

I claim:

1. In a coin controlled mechanism comprising in combination a frame having a coin slot, a gravity coin guideway adjacent thereto and having a basal opening for the discharge of "false" coins, a door adapted to be moved to close said opening, means to operatively support said door, a pivoted lever governing the entrance to said guideway, a pivoted member movable by said lever from a first to a second position and automatically returnable to its first position when released from its second position, a trip device adapted to hold said part in its second position and to be released by a coin passing through said guideway, connecting actuating means between said pivoted member and said door adapted to move said door to closed position when said pivoted member is in its second position and to restore said door to open position when said pivoted member is returned to its initial position.

2. A coin controlled device, comprising in combination a frame having an opening to receive commodities to be vended, a coin slot and a gravity coin guideway adjacent thereto, a pivoted lever actuated by "true" coins' contact and governing the entrance to said guideway, a pivoted member movable by said lever from a first to a second postion, a trip device having a part operating to support said pivoted member in its second position and having another part operating by coin contact to release said pivoted member and permit it to return automatically to initial position, after the passing of the coin, a latch having operative contact with said member, a vertically-disposed pivoted arm by which said latch is operated, a normally closed door governing said commodity opening in the casing, and connecting actuating means between said door and said vertically disposed pivoted arm operating to move said door to open position when said arm is moved from its normal position.

3. A coin controlled vending mechanism, comprising in combination a slotted casing, a gravity coin guideway, means extending into said guideway movable by coin contact from a normal position to permit the passing of the coin, a pivoted member movable by said last mentioned means from a

first to a second position, a trip device operating to primarily hold said pivoted member in its second position and having a part extending into the path of gravity movement of the coin and operating by such contact to release said member from its second position, a vertically disposed pivoted lever, a latch carried thereby and having operative contact with said pivoted member, a hook forming part of said lever and tending to hold it in normal position, a second coin guideway communicating with the first coin guideway, a coin receiver communicating with the second guideway, said receiver having adjustable means to support a predetermined number of coins therein, means whereby the last of a series of coins delivered to said receiver from the first named guideway will be directed from the receiver to the second guideway, and a movable controlling device within said last mentioned guideway actuated by contact of the coin received therein and operating to release said pivoted lever.

4. In a coin controlled mechanism, the combination of a frame having a coin slot therein, a coin guide to receive a coin from said slot and guide its movement by gravity, a pivoted lever governing the entrance to said coin guide, a part movable by said lever from a first to a second position and automatically returnable to its first position when released from its second position, a trip device adapted to hold said part in its second position and to be operated by a coin passing through said guide to release said part, an arm movable from a normal position, and a latch adapted to prevent the movement of said arm from its normal position and operative to release the same, said part moving said latch to release said arm when said part is moved to its second position.

5. In a coin controlled mechanism, the combination of a frame having a coin slot therein, a coin guide to receive a coin from said slot and guide its movement by gravity, a part movable from a first to a second position and automatically returnable to its first position when released from its second position, means operated by a coin inserted into said slot to move said part from its first to its second position, a pivoted trip device having an arm adapted to engage and hold said part in its second position when moved thereto and having an arm extending into said guide and adapted to be engaged by a coin passing therethrough to operate said device to release said part, an arm movable from a normal position, and a latch adapted to prevent the movement of the last named arm from its normal position and operative to release the same, said part moving said latch to release the last named arm when said part is moved to its second position.

6. In a coin controlled mechanism, the combination of a frame having a coin slot therein, a coin guide to receive a coin from said slot and guide its movement by gravity, a part movable from a first to a second position and automatically returnable to its first position when released from its second position, means operated by a coin inserted into said slot to move said part from its first to its second position, a trip device adapted to hold said part in its second position and to be operated by a coin passing through said guide to release said part, said guide having a coin discharging opening therein between said slot and said device, a door movable into and from a position closing said opening and preventing the escape of a coin therethrough, and means controlled by said part to move said door to its closing position when said part is moved to its second position and to move said door from its closing position when said part is returned to its first position.

7. In a coin controlled mechanism, the combination of a frame having a coin slot therein, a coin guide to receive a coin from said slot and guide its movement by gravity, a part movable from a first to a second position and automatically returnable to its first position when released from its second position, means operated by a coin inserted into said slot to move said part from its first to its second position, a pivoted trip device having an arm adapted to engage and hold said part in its second position when moved thereto and having an arm extending into said guide and adapted to be engaged by a coin passing therethrough to operate said device to release said part, said guide having a coin discharging opening therein between said slot and said device, a door movable into and from a position closing said opening and preventing the escape of a coin therethrough, and means controlled by said part to move said door to its closing position when said part is moved to its second position and to move said door from its closing position when said part is returned to its first position.

8. In a coin-controlled mechanism, the combination of a coin receiver, a vertically disposed pivoted lever including adjustable means operable thereby and adapted to support a predetermined number of coins within the receiver, said lever being movable from normal position to discharge coins from the receiver, a gravity coin guideway, means to control the passage of coins therethrough, a second coin guideway communicating with the first coin guideway and with said receiver, means to direct the last of a series of coins from the receiver to the sec-

ond guideway, a movable controlling member within said guideway actuated by contact of the coin received therein, means tending normally to move said lever on its pivotal bearing, and a hook forming part of said pivoted lever and normally engaged by said controlling member to maintain said lever in normal position, and to release it therefrom when said controlling member is moved by coin contact.

9. In a coin controlled dispensing device operable only by a series of coins, the combination of a frame having an opening to receive commodities to be vended and a movable door normally closing said opening, a gravity coin guideway, a second coin guideway communicating therewith, a receiver communicating with both of said guideways, a pivoted lever, including adjustable means operable thereby to support a predetermined number of coins in said receiver, and to discharge coins therefrom when said lever is moved from its normal position, means to direct the last, only, of said series of coins from the receiver to the second guideway, a hook device forming a part of said lever and extending into said second guideway, means within said second guideway normally engaging said hook device and tending to lock said lever in normal position and movable by coin contact to release said hook device, means tending to move said lever on its pivotal bearing when released, said last mentioned means normally holding said door in closed position, and operating, when released, by said movement of the lever, to move said door to open position.

10. In a coin controlled dispensing device operable only by a series of coins, the combination of a frame having an opening to receive commodities to be vended, and a movable door normally closing said opening, a gravity coin guideway, a second coin guideway communicating therewith, a receiver communicating with both of said guideways, a pivoted lever including adjustable means operable thereby to support a predetermined number of coins in said receiver, and to discharge coins therefrom when said lever is moved from its normal position, means to direct the last, only, of said series of coins from the receiver to the second guideway, a hook device forming a part of said lever and extending into said second guideway, means within said second guideway normally engaging said hook device and movable by coin contact to release said lever, means tending to move said lever on its pivotal bearing, when released, said last mentioned means normally holding said door in closed position, said means being released to open said door when the lever is moved, and restored to initial holding position when said door is manually moved to closed position.

In testimony whereof I affix my signature hereto, this 8th day of October, 1917.

OTTO JAEGER.