May 13, 1952 R. F. PAULSON ET AL 2,596,430

COIN-CONTROLLED MECHANISM FOR MERCHANDISE DISPENSING DEVICES

Filed Dec. 7, 1946 2 SHEETS—SHEET 1

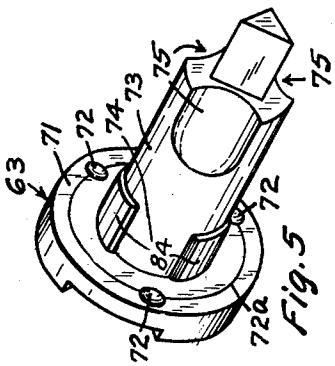


Fig. 5

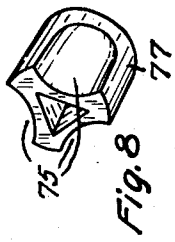


Fig. 8

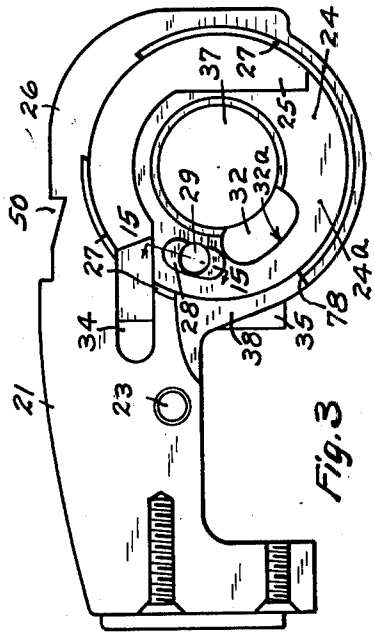


Fig. 3

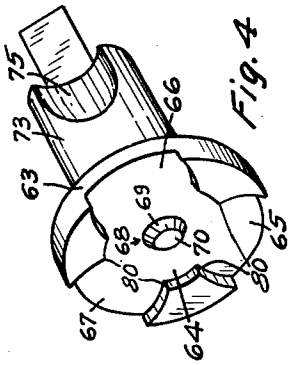


Fig. 4

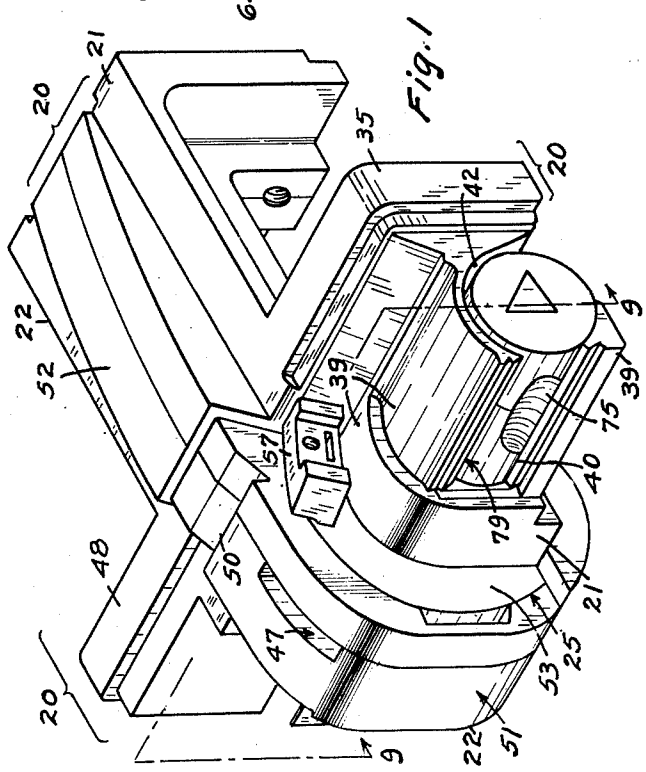


Fig. 1

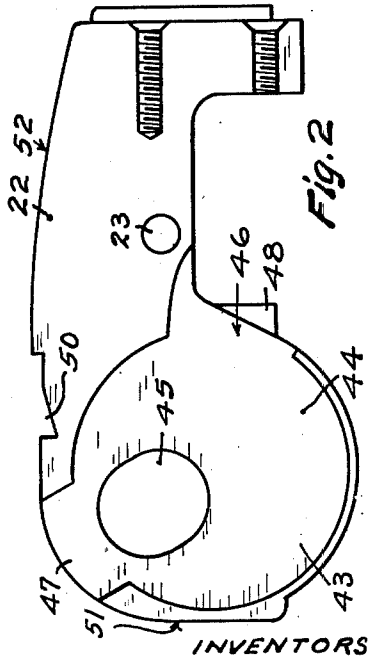


Fig. 2

INVENTORS
Stanley Bartlett Palmer
Roy Foster Paulson
BY
Arnold and Mathis
ATTORNEYS

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COIN-CONTROLLED MECHANISM FOR MERCHANDISE DISPENSING DEVICES

Filed Dec. 7, 1946 2 SHEETS—SHEET 2

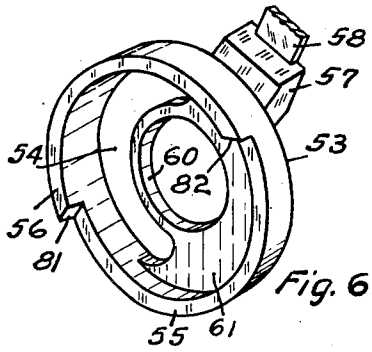


Fig. 6

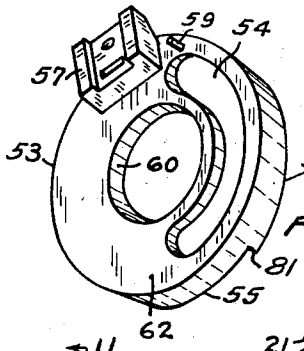


Fig. 7

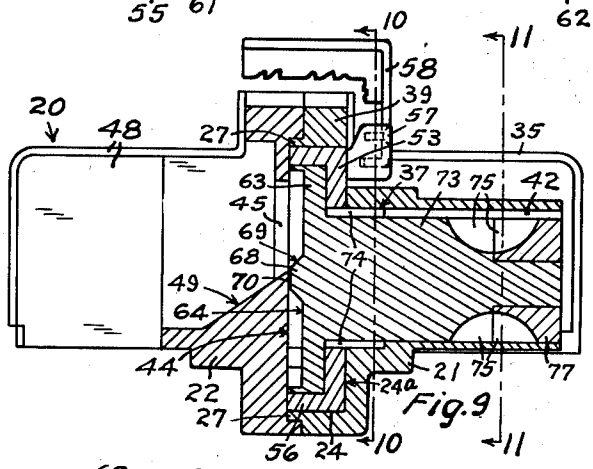


Fig. 9

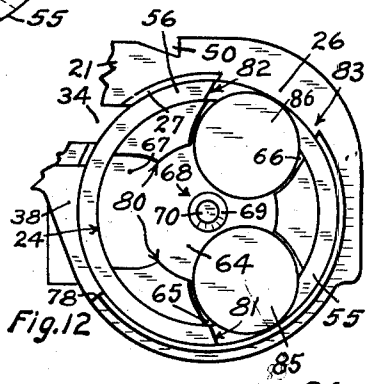


Fig. 12

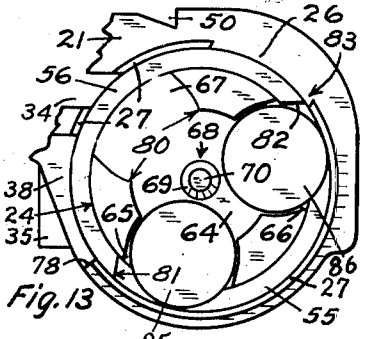


Fig. 13

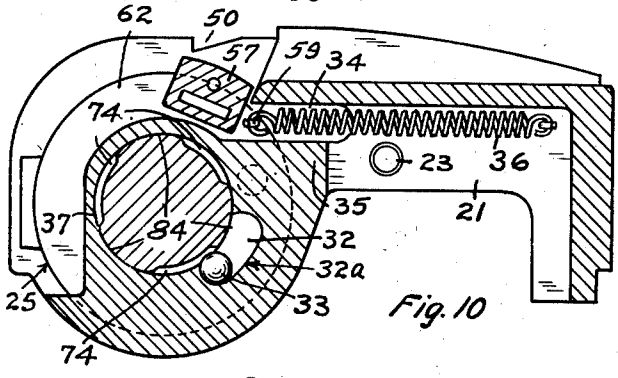


Fig. 10

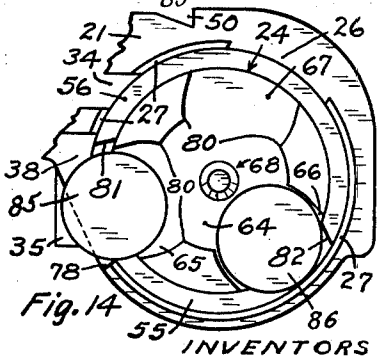


Fig. 14

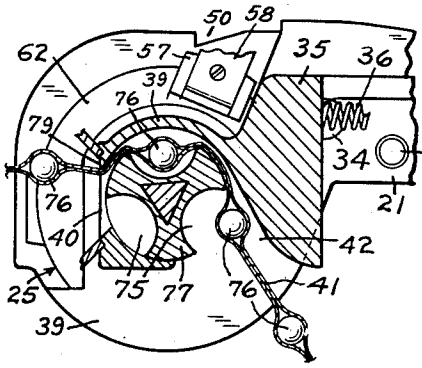


Fig. 11

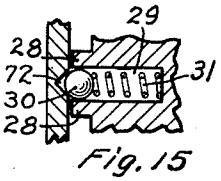


Fig. 15

INVENTORS
Stanley Bartlett Palmer
Roy Foster Paulson
BY
Arnold & Mathis
ATTORNEYS

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UNITED STATES PATENT OFFICE

2,596,430

COIN-CONTROLLED MECHANISM FOR MERCHANDISE DISPENSING DEVICES

Roy Foster Paulson, Kirkland, and Stanley Bartlett Palmer, Richmond Beach, Wash.

Application December 7, 1946, Serial No. 714,732

12 Claims. (Cl. 194—85)

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Our invention relates to the art of coin controlled mechanism for merchandise dispensing devices.

The merchandise dispensing mechanism for which our coin controlled mechanism was designed is characterized by its compactness and was necessarily so characterized by reason of the limited available locations where it may be placed.

Therefore the coin controlled mechanism likewise had to be of a most compact character. At the same time, such coin controlled mechanism had to be of simple construction and economical to manufacture. In combination with these features it was necessary to provide locking mechanism and also it was very desirable to provide double locking mechanism to assure against tampering and unintended operation whereby the merchandise might be secured without proper payment. Furthermore, the coin controlled mechanism had to be adapted to serve as the mounting and bracing means for the housing members of the dispensing mechanism. Also it was desired to make provision for the return to the depositor of coins of wrong denomination.

A primary purpose of our invention is to provide a coin controlled mechanism which is characterized by its simplicity, compactness of construction, economy of manufacture, ease of operation and its adaptation to serve as a mounting means for the housing members of the dispensing mechanism and for its provision of assurance against tampering and unintended operation by double locking means. Furthermore, it is a purpose of our invention to provide a coin controlled mechanism which employs its parts to perform a multiplicity of functions in providing the above features.

For purposes of clearness and definiteness of description, our coin controlled mechanism is set forth for dispensing merchandise mounted in or carried by a ribbon means.

The above mentioned general objects of our invention, together with others inherent in the same, are attained by the mechanism illustrated in the following drawings, the same being preferred exemplary forms of embodiment of our invention, throughout which drawings like reference numerals indicate like parts:

Figure 1 is a view in perspective of the coin controlled mechanism;

Fig. 2 is a detached view of the inner face in elevation of one half, i. e., the coin return half, of the mechanism;

Fig. 3 is a detached view in elevation of the inner face of the opposed half, i. e., of the merchandise dispensing half;

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Fig. 4 is a view in perspective of the coin driven face of the disc integrally formed with the merchandise dispensing drum;

Fig. 5 is a view in perspective of the rear side of the coin driven disc integrally formed with the merchandise dispensing drum;

Fig. 6 is a view in perspective of the driving face of the driving disc;

Fig. 7 is a view in perspective of the rear of the driving disc;

Fig. 8 is a view of a detachable end segment of the merchandising drum;

Fig. 9 is a view in longitudinal axial section, taken substantially on broken line 9—9 of Fig. 1, of the assembled driving disc and the driven disc and the merchandise dispensing drum integrally formed with the said driven disc;

Fig. 10 is a view in cross section of the mechanism of our invention taken substantially on line 10—10 of Fig. 9, parts being shown in elevation;

Fig. 11 is a fragmentary view in cross section taken substantially on line 11—11 of Fig. 9, parts being shown in elevation;

Fig. 12 is a fragmentary view in elevation showing the driven and driving disc members in starting position with coins operatively clutch-like joining the two;

Fig. 13 is a fragmentary view in elevation showing the driven and driving disc members in a position they may occupy when the operating handle has been only approximately half way pushed down;

Fig. 14 shows in elevation the driven and driving disc members in a position near the end of the article dispensing stroke and with a coin released and ready to drop out; and

Fig. 15 is a fragmentary sectional view taken substantially on broken line 15—15 of Fig. 3 and showing positioning and detent means for the driven disc.

A two part frame 20, preferably divided longitudinally and vertically substantial axially into a coin operating half or section 21 and coin return half or section 22, is held together by a single securing means as a screw or bolt in openings 23 and by interlocking flange means which will be described hereinafter.

Coin operating half 21 (Figs. 1, 3 and 9) is preferably provided with a circular chamber 24 having lever arcuate receiving recess 25 in chamber face 24a, a projecting coin guide flange 27 having a coin receiving slot 26 and a coin discharge slot 38, a projecting member 28 having a recess 29 (Fig. 15) for housing a ball 30 and a spring 31 for resiliently urging said ball 30 into locking recesses hereinafter described, a sec-

ond locking means (Figs. 3 and 10) in the form of an arcuate tapered runway or race 32*a* in recess 32 for locking ball 33. An opening 34 is provided through a lateral flange or shoulder 35 for an extension or retracting spring 36 for operating a part hereinafter described. Axially of chamber 24 is bearing opening 37 in the merchandise dispensing drum housing 39 carried by flange or shoulder 35, which has opening 40 through which the merchandise carrying ribbon 41 issues or passes at the time of dispensing. Said drum housing 39 also has curved passageway 42 for said merchandise carrying ribbon 41.

The coin return half or section 22 (Figs. 1, 2 and 9) of the two part frame 20 is preferably provided with a shallow circular chamber 43 registering with and complementary to chamber 24 and accordingly receives projecting coin guide flange 27 thereby interlocking and positioning the two sections 21 and 22 of the frame 20. Said shallow chamber 43 has face 44 in which face is coin return opening 45 and coin discharge recess 46 registering with and complementary to coin discharging slot 38. A coin receiving slot 47 is provided for said chamber 43 which slot registers with and is complementary to coin receiving slot 26. Said section 22 is preferably provided with a lateral flange or shoulder 48 and said section preferably carries a coin return chute 49.

The frame 20 is preferably provided with locking notch 50 for securing housing member of the mechandise dispensing mechanism not shown herein. Likewise said frame 20 is preferably provided with the lateral flanges or shoulders 35 and 48 which may also serve as mounting bracing means for the housing members of the merchandise dispensing device not herein shown. Furthermore, the front 51 and top 52 of the frame 20 are preferably of curved form to spring and place the merchandise housing members (not shown) under tension in mounting thereon.

An annular reciprocating driving disc 53 (Figs. 6, 7 and 9) having an arcuate slot 54 to receive therethrough the projecting stop member 28 for ball 30 and a circumferential flange 55 on the front face 61 thereof and an arcuate stepped flange 56 mounted upon said circumferential flange 55, the outside circumference of said flange functioning as a bearing within the inner wall of chamber 24. The ends of said arcuate slot 54 also function as supplementary stops for the reciprocating stroke of said disc 53 in conjunction with projecting stop member 28. On the rear face of said driving disc 53 there is preferably provided an operating lever 57 on which is mounted operating handle 58 (fragmentarily shown in Figs. 6, 9, and 11) and a pin 59 for securing retracting spring 36, said lever functioning as a stop on each end of the reciprocating stroke in conjunction with parts of the frame. Also, said driving disc 53 is provided with bearing 60—the front and rear faces 61 and 62, respectively of said disc, function as thrust means.

A driven disc 63 (Figs. 4, 5 and 9, 12, 13 and 14) is disposed in the overhanging circumferential flange 55 of the driving disc 53 and has on its front face 64 a plurality of coin temporarily retaining pockets or passageways 65, 66, and 67 and a coin ejector or block 68 preferably of a frustrum of a cone form, axially disposed in said face 64 so that its sloping side 69 may deflect a coin of wrong denomination into coin return opening 45 and on to chute 49. The part 68 or pin-like member obviously operates not only as an ejector but also functions to block coins of

dimensions smaller than a nickel such as dimes and pennies in the present illustration from dropping into other passageways below the passageway registering with coin slot 26. The returned coin then drops into a conventional receptacle carried by the merchandise dispensing device which is not shown and from which receptacle the depositor may recover the returned coin. Said coin ejector 68 has face 70 (Fig. 9) which functions as a thrust bearing in conjunction with the face 44 of chamber 43. Ease of operation is assured by having this one small face 70 contact face 44, the face 64 lying in a plane rearward of the plane of face 70.

In the rear face 71 of driven disc 63 are locking and positioning recesses 72 to receive resiliently urged ball 30. Said disc 63 carries axially merchandise dispensing drum 73 integrally formed thereon. In the circumference of said drum 73 are recesses 74 which cooperate with recess 32 to enlarge the latter so that the locking ball 33 is rendered inoperative, i. e., is not called into action. When upon rotation, one of the raised portions on the circumferential part of the drum 73 comes into contact with the directional locking ball 33, it forces the ball into operation by pressing the ball against the tapered raceway 32*a* in recess 32, the tapering narrowing the recess towards its lower end (Fig. 10). In the merchandise dispensing drum 73 there are preferably provided merchandise receiving pockets 75 for the merchandise here illustrated as capsules 76 carried in ribbon 41 so that said ribbon may be fed forward. The number of said pockets 75 correspond to the number of coin recesses 65, 66 and 67 and the mechanism as respects its several parts is designed to operate in timed relation. For purposes of facilitating the threading of the merchandise ribbon 41 over and upon the drum 73, the pocket end portion of said drum is provided with a removable part 77 (Fig. 8) so that said part may be removed and the ribbon 41 threaded over the drum 73 with a capsule 76 positioned within a pocket 75. Thereupon, the part 77 is replaced and held in position by the housing member of the merchandise dispensing device (not shown).

The driven disc 63 is assembled by the inserting of the drum 73 in the axial opening 60 in the driving disc 53 (Fig. 9) and through the bearing opening 37 in drum housing 39. Thereupon, frame sections 21 and 22 are assembled and secured together by securing means in aligned holes 23.

The mode of operation of the coin controlled mechanism of our invention is set forth in part above and further is as follows: The coin receiving slot 26 (Fig. 12) is made for a coin 85 of predetermined dimension or denomination, for example, a nickel or five cent piece. After passing the slot 26 the coin 85 enters coin temporary retaining pocket or passageway 65. Then the lever 57 is pulled forward which causes driving disc 53 to revolve and cause the forward edge 82 of the arcuate stepped flange 56 to engage the coin 85 in its upper portion, i. e., the part of the coin lying in the path of said arcuate stepped flange 56. Upon such engagement the continued rotation of the driving disc 53 causes the coin 85 to revolve into position as shown in Fig. 12 short of the beginning point 78 of the coin discharge slot 38. Thus, the driving disc 53 is connected through the coin 85 to the driven disc 63 so that the latter disc is actuated. In short, the coin 85

serves as a clutch or interlocking means between the driving disc 53 and the driven disc 63.

With the coin 85 in the position of pocket or passageway 65, Fig. 12, the machine is ready for use by the public. That is, in preparing the machine for the vending of merchandise to the public, a coin 85 is inserted by the operator who services the machine, as explained above, and turned to the position shown in Fig. 12.

After the pocket or passageway 65 is rotated to the position shown in Fig. 12 by pulling forward the operating lever 57, the lever 57 is released and the retraction spring 36 (Fig. 10) returns the driving disc 53 to its initial position with coin pocket or passageway 66 in coin receiving position with respect to slot 26.

When the first merchandise purchaser inserts a nickel in the slot 26 his coin 86 falls into pocket or passageway 66. Then, when he pulls the lever 57 down to its full stroke, his coin 86 moves to the position previously occupied by the pocket or passageway 65 (Fig. 12). Pocket or passageway 65 in the meantime has moved to coin discharging position (Fig. 14) and the coin 85 falls through coin discharge slot 38 as seen in Fig. 14. The coin 86 of said purchaser in pocket or passageway 66 connects the driving disc 53 with the driven disc 63 when the forward edge of the arcuate stepped flange 56 engages the coin 86 as set forth for the coin 85 in pocket or passageway 65. As the driven disc 63 is rotated by the pulling forward of the lever 57, the merchandise dispensing drum 73 integrally formed on said driven disc 63 is revolved and the ribbon 41 carrying a capsule 76 is moved forward through the drum housing opening 40 (Fig. 11) so that capsule 76 is free to be grasped by the purchaser and the ribbon portion containing the enclosed capsule torn off by pulling upward against edge 79 of the drum housing 39.

The above sets forth the general operation (and this in brief) of the coin controlled mechanism of our invention. The details of operation will next be set forth.

As stated, the coin slot 26 is of a minimum dimension to receive a coin, as a nickel, of a predetermined denomination. The dimension is very precise in this regard. If a coin of a smaller denomination in respect to a nickel, as a dime or a penny, is inserted through the slot 26, it will pass into pocket or passageway as 65, 66, or 67 but will be free to strike against coin ejector 68 and be deflected by the sloping side 69 and be caused to pass through coin return opening 45, down chute 49 and into a receptacle (not shown), but which is accessible to the depositor to recover his returned coin. Such coin is "free" to strike against ejector 68 for the reason that the distance between points 80 of each pocket in driven disc 63 is of a magnitude just great enough to retain the predetermined desired operating coin, as the nickel in the present illustration, and permit the passing of the next smaller dimension coin and those coins still smaller. As already explained, the larger sized coins than that of the predetermined operating coins are eliminated by the size of the slot 26—the same being too small to receive such larger coins.

The next safeguard against tampering or unauthorized operation is provided by the arcuate stepped flange 56 which, as explained, functions to engage the proper coin (retained in pocket or passageway 65 or 66 or 67) to connect the driving disc 53 with the driven disc 63—the improper coin affords no such connection since it is not retained

and, as explained, merely passes on through the parts for its return. The next function of the arcuate stepped flange 56 is to act as closing means for the coin receiving slot 26. It does this as it moves forward while engaging the proper coin to cause driven disc 63 to rotate. This closing of the slot 26 prevents the insertion of any instrument as, for example, a nail file to force the rotation of the driving disc 53 sufficiently to reach a capsule. In this connection we have assumed that no second nickel as 86 was placed in the pocket or passageway 66. The closing of this slot also prevents the insertion of a coin before the cycle of operation is completed and therefore protects the customer against the loss of coin which would fail to cause the machine to operate to deliver goods.

The third function of the arcuate stepped flange 56 is to operate as a safeguard and involves its rear end portion 81 which is of a length to engage the nickel in pocket 65 (Fig. 12) so that if one scheming to operate the device in an unauthorized manner by taking hold of the ribbon 41 and pulling it to cause the drum 73 to revolve for the continued delivery of merchandise without depositing a coin for each capsule unit, the mechanism is blocked. This results as follows: It will be assumed that the would-be defrauder has placed his nickel in the pocket 66 and pulled the lever 57 forward to the end of its stroke then automatically arcuate flange 56 on driving disc 53 went back to its initial position by reason of the action of retraction spring 36. Then if he tries to continue to make the merchandise dispensing drum 73 continue to revolve by pulling on the ribbon he must pull against the tension of retraction spring 36 which is more than the ribbon will stand and it will break. The reason why he must pull against the retraction spring 36 is due to the fact that by pulling on the ribbon he must cause the driven disc 63 on which the drum is integrally formed to revolve clockwise and when he does this the nickel which he deposited and is now in pocket 66 which would be in position of pocket 65 (Fig. 12) is pressed against the rear end portion 81 of arcuate flange 56 which is carried by driving disc 53 which in turn is connected directly to retraction spring 36. Thus the end portion 81 of the arcuate flange 56 performs this function of safeguarding against unlawful operation by pulling on the ribbon 41. A fourth function of arcuate stepped flange 56 is as follows: Assuming that the depositor has placed his coin in slot 66 and has moved the lever 57 forward until the forward edge 82 of the arcuate flange 56 has reached the point 83 (Fig. 13) so that the slot is just closed and the operator, thinking that he has pressed the lever sufficiently far for its proper operation, lets go of the lever. The retraction spring 36 tends to retract the driving disc 53 and the arcuate stepped flange 56, but its retraction is prevented by mechanism which will now be described.

A recess 32 Figs. 3 and 10, having tapered raceway 32a is provided in drum housing 39. In this recess ball 33 is deposited. While any part of recess 74 in drum 73 is in registration with recess 32, ball 33 is not operatively engaged by the rotating of drum 73. This provides a ratchetlike means with an intermittent action. When the lever was pulled forward so that the forward edge 82 of the driving disc 63 reached the point 83, then the circumference portion 84 came into engagement with the ball and moved the ball upwardly in recess 32, where recess 32 is of enlarged

proportions so that the ball did not resist the forward revolving of the drum 73. However, when the operator released the lever and the driving member 53 started to retract under the action of spring 36, the coin in pocket 65 engaged end portion 81 (Fig. 12) of arcuate stepped member 56, thus causing a rearward rotation of drum 73 which immediately caused the ball to drop down into the narrower portion of recess 32 so that the circumference portion 84 bears down on the ball and as the ball was in the lower restricted portion of recess 32 it jammed the drum and prevented further rearward rotation. In this manner the would-be purchaser was informed that he had not completed the necessary operation, that is, the pulling forward of the lever 57. Thus in trying to make the machine operate, he would be apt to pull forward on the lever and find that by pressing it down its full stroke according to directions posted on the machine that it could go forward and he could then receive the capsule or the desired unit of merchandise. Upon completing the full stroke of the lever the nickel in pocket 65 will have been displaced and there would be no coin engaging the rear portion 81 of the arcuate member 56 so that the retraction spring 36 is then free to return the arcuate member 56 to its initial position leaving the slot 26 open as respects the coin receiving pockets as pocket 67. When the lever 57 was pressed to its full stroke it automatically left a recessed portion 74 of the drum 73 in registration with recess 32 (Fig. 10) permitting the ball 33 to fall back to the restricted portion of recess 32 since recess 74 in drum 73 would then be in registration with recess 32, thus enlarging the bottom portion of recess 32 so that the ball 33 would not operate upon the revolving drum 73 until the circumferential portion 84 of the drum was rotated to engage the ball 33 and lift it upwardly in recess 32.

Case 6.—Further safeguarding means against unauthorized operation of the device is afforded as follows: driven disc 63 is provided with circular recess 72 in the rear face 71 of the driven disc 63. Into this recess is pressed ball 30 by spring 31 mounted in recess 29 in drum housing 39. These recesses 72 are positioned with respect to coin receiving pockets 65, or 66 or 67 so that the revolving of driven disc 63 by the driving disc 53 results in these pockets registering with the coin receiving slot 26 when the lever 57 is operated to its full stroke. Obviously ball 30 locks the driven disc 63 in position until it is forced to rotate by driving disc 53 operating through a proper coin held in one of the pockets or passageways 65 or 66 or 67, as hereinbefore described. Manifestly, ball 30 and recesses 72 operate not only as locking means but also as positioning means to aline the coin receiving pockets or passageways 65 or 66 or 67 with coin receiving slot 26.

Obviously, changes may be made in the forms, dimensions, and arrangement of the parts of our invention, without departing from the principle thereof, the above setting forth only preferred forms of embodiment.

We claim:

1. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber, said coin return half section cooperating to form one face of said chamber; a coin receiving slot circumferentially disposed relative to said chamber; a driving disc rotatably mounted in said chamber having a stepped circumferential flange providing two spaced apart coin engaging shoulders; a driven disc rotatably disposed in the circumferential flange of said driving disc which driven disc is lockable when rotated in a backward direction, said driven disc having a plurality of coin receiving pockets in one face thereof successively registrable with said coin slot, one shoulder of said flange engageable with a coin in one of said pockets in driving said driven disc forwardly, the other shoulder engaging a coin in another pocket in blocking rotation in a backward direction.

2. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber, said coin return half section cooperating to form one face of said chamber and having in said face a coin return opening; a coin receiving slot circumferentially disposed relative to said chamber; a driving disc rotatably mounted in said chamber having a stepped circumferential flange providing two spaced apart coin engaging shoulders, one shoulder being positioned to regularly engage coins upon each dispensing movement of the driving disc and the other shoulder being positioned to engage a coin when the device is improperly operated; a driven disc rotatably disposed in the circumferential flange of said driving disc which driven disc is lockable when rotated in a backward direction, said driven disc having a plurality of coin receiving pockets in one face thereof successively registrable with said coin slot, one shoulder of said flange engageable with a coin in one of said pockets in driving said driven disc forwardly, the other shoulder engaging a coin in another pocket in blocking rotation in a backward direction.

3. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber, said coin return half section forming one face of said chamber and having in said face a coin return opening; a coin receiving slot circumferentially disposed to said chamber; a driving disc supported for oscillation in said chamber and having a stepped circumferential flange providing two spaced apart coin engaging shoulders, one portion of said flange being clear of said coin receiving slot and the other portion of said flange being in overlapping relation to said slot and one of said shoulders being movable across said slot in engaging a coin in one of said pockets while discharging an article of merchandise, the other shoulder engaging a coin in another pocket in blocking rotation in a backward direction; means operable to rotatively move said driving disc; a driven disc rotatively disposed within the circumferential flange of said driving disc; a plurality of pockets on one face of said driven disc in the plane of said coin receiving slot, said pockets being wider at their outer ends and having narrower inwardly disposed portions whereby they will retain and hold coins in excess of a predetermined diameter and will pass coins of less than that diameter; and a centrally disposed deflector member on said disc operable to deflect

coins of less than said predetermined diameter outwardly through said coin return opening.

4. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber, said coin return half section forming one face of said chamber; a coin receiving slot circumferentially disposed to said chamber; a driving disc supported for oscillation in said chamber and having a stepped circumferential flange providing a coin engaging shoulder, one portion of said flange being clear of said coin receiving slot and the other portion of said flange being in the plane of said slot; means operable to rotatively move said driving disc; a driven disc rotatively disposed within the circumferential flange of said driving disc; and a plurality of pockets on one face of said driven disc lockable when rotated in a backward direction in the plane of said coin receiving slot adapted to receive a coin inserted through said slot and to support said coin in the path of movement of said shoulder whereby said coin will operatively connect said driven disc and said driving disc for rotary movement.

5. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber, said coin return half section forming one face of said chamber; a coin receiving slot circumferentially disposed to said chamber; a driving disc supported for oscillation in said chamber and having a stepped circumferential flange providing a coin engaging shoulder, one portion of said flange being clear of said coin receiving slot and the other portion of said flange being in the plane of and movable over said slot; means operable to rotatively move said driving disc; a driven disc rotatively disposed within the circumferential flange of said driving disc; a plurality of pockets on one face of said driven disc lockable when rotated in a backward direction in the plane of said coin receiving slot positioned to receive a coin inserted through said slot and operable to support said coin in the path of movement of said shoulder whereby said driving disc and said driven disc will be operatively connected for rotative movement by said coin; and yielding detent means engaging said driven disc yieldingly holding the same in predetermined positions and releasable when turning force is exerted on said driven disc through a coin in one of said pockets.

6. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber, said coin return half section forming one face of said chamber; a coin receiving slot circumferentially disposed to said chamber; a driving disc supported for oscillation in said chamber and having a stepped circumferential flange providing a coin engaging shoulder, one portion of said flange being clear of said coin receiving slot and the other portion of said flange being in the plane of said slot and movable over said slot; means operable to rotatively move said driving disc throughout a predetermined stroke; a driven disc rotatively disposed within the circumferential flange of said driving disc; a plurality of pockets

on one face of said driven disc lockable when rotated in a backward direction in the plane of said coin receiving slot adapted to receive and hold a coin in the path of movement of said shoulder whereby the coin will lock the driving disc and the driven disc together for movement in one direction; and ratchet means connected with said driven disc operative to lock said driven disc against reverse rotary movement in the latter portion of each forward stroke of said driven disc.

7. A coin controlled mechanism comprising a circular housing providing for mounting and concentric movement of coin and parts guarding against improper operation; a coin inlet slot and a coin outlet slot provided at spaced intervals in the periphery of said housing; a driving disc supported for oscillation within said housing having a transversely protruding stepped flange on the circumferential portion of said driving disc, said flange having two spaced apart coin engaging shoulders, one portion of said flange being clear of said coin slots and the other portion thereof being in the plane of said coin slots and one of said shoulders being movable across the inlet coin slot, thereby preventing improper operation; stop means limiting rotative movement of said driving disc in two directions to provide a predetermined stroke of said driving disc; spring means yieldingly urging said driving disc into a retracted position; means operable to move said driving disc throughout a predetermined stroke against the force of said spring means; a driven disc rotatively disposed within the flange of said driving disc; a plurality of coin pockets on one face of said driven disc in the plane of said two coin slots operable to receive and simultaneously support coins in the path of both of said shoulders whereby a coin in one of said pockets will be engageable by one of said shoulders in dispensing and a coin in another pocket will be engageable by the other of said shoulders to rotate together in the opposite direction; and ratchet means connected with said driven disc operable to lock said driven disc against reverse rotary movement in the latter portion of each forward stroke of said two discs.

8. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber and an arcuate lever receiving recess, said coin return half section cooperating to form one face of said chamber and having in said face a coin return opening; a coin receiving slot circumferentially disposed relative to said chamber; projecting interfitting guide means positioning and interlocking said two sections; a stop member projecting into said chamber and having a bore therein; resiliently urged detent means operable in said bore; a driving disc having an arcuate slot positioned to receive said stop member, said driving disc having a stepped circumferential flange providing two spaced apart coin engaging shoulders; a driven disc lockable when rotated in a backward direction rotatably disposed in the circumferential flange of said driving disc and positioned to receive coins from said coin slot; a plurality of coin receiving pockets on one face of said driven disc positioned to register with said coin slot when said driven disc is rotatively moved upon each dispensing movement of the driving disc, a coin acting as a connector, one

of said shoulders engageable with a coin in one pocket when driving the driven member forward and the other shoulder engageable with a coin in another pocket in blocking rotation in a backward direction; positioning recesses on the other face of said driven disc cooperatively disposed with respect to said detent means; spring means rotatively urging said driving disc in one direction; and lever means secured to said driving disc and operable in the arcuate lever receiving recess of said coin operating half section for rotatively moving said driving disc against the force of said spring.

9. A coin controlled mechanism for a merchandise dispensing machine comprising a two part frame divided longitudinally substantially vertically into a coin operating half section and a coin return half section, said coin operating half section having a circular chamber and an arcuate lever receiving recess, said coin return half section cooperating to form one face of said chamber and having in said face a coin return opening; a coin receiving slot circumferentially disposed relative to said chamber; projecting interfitting guide means positioning and interlocking said two sections; a stop member projecting into said chamber and having a bore therein; resiliently urged detent means operable in said bore; a driving disc having an arcuate slot positioned to receive said stop member, said driving disc having a stepped circumferential flange providing two spaced apart coin engaging shoulders; a driven disc lockable when rotated in a backward direction rotatably disposed in the circumferential flange of said driving disc and positioned to receive coins from said coin slot; a plurality of coin receiving pockets on one face of said driven disc positioned to register with said coin slot when said driven disc is rotatively moved upon each dispensing movement of the driving disc, a coin acting as a connector, one of said shoulders engageable with a coin in one pocket when driving the driven member forward and the other shoulder engageable with a coin in another pocket in blocking rotation in a backward direction; positioning recesses on the other face of said driven disc cooperatively disposed with respect to said detent means; and an axially disposed merchandise dispensing drum carried by said driven disc.

10. A coin controlled mechanism for a merchandise dispensing machine comprising a coin operating section and a coin return section, said coin operating section having a circular chamber, an arcuate lever receiving recess, a locking ball runway recess for preventing improper operation, and said coin return section cooperating to form one face of said chamber having in said face a coin return opening; a coin receiving slot circumferentially disposed to said chamber of predetermined size to receive coins of a given denomination; a locking member carried by said coin operating section projecting into said chamber, said member comprising a resiliently urged ball locking means; a driving disk having an arcuate slot receiving therethrough said resiliently urged ball locking means, which in conjunction with the ends of said arcuate slot functions as a stop means for said driving disk, said driving disk having a circumferential flange with an arcuate flange mounted upon said circumferential flange, said latter flange having one shoulder which regularly engages coins upon each dispensing movement of the driving disk and one shoulder engageable with a coin when the device is improperly operated; and a driven disk rotatively disposed in said circumferential flange having on one face a plurality of coin temporarily retaining pockets and on the other face a positioning and locking recess for each of said coin retaining pockets cooperatively disposed with respect to said resiliently urged ball positioning and locking means, and a merchandise dispensing drum axially disposed to said driving disc.

11. In a coin controlled mechanism, a circular chamber; a driven disc mounted in said chamber having radially disposed coin receiving pockets, said driven disc also having connected therewith a drum having a merchandise dispensing pocket for each of said coin receiving pockets; a driving disc for said driven disc concentrically mounted with said driven disc in said chamber having a circumferentially disposed flange with an arcuate flange mounted upon said circumferential flange, the ends of said arcuate flange being of a predetermined spaced relation whereby one end of the arcuate flange engages a coin in a pocket to actuate the driven disc in one direction and the other end of the arcuate flange is engageable with a previously deposited coin in one of said pockets to actuate the driven disc in the opposite direction; and a locking means in part located in the wall of said circular chamber and in part in the driven disc whereby the rotation of the driven disc backwardly is prevented in case of an incomplete dispensing operation.

12. In a coin controlled mechanism, a housing, a circular chamber in said housing, a driven disc mounted in said chamber having radially disposed coin receiving pockets on one side of said disc and, on the other side of said disc, a concentrically mounted drum having a merchandise dispensing pocket for each of said coin receiving pockets and said driven disc having on the side of said disc on which the drum is mounted opposite each pocket correlating registering means; a driving disc for said driven disc concentrically mounted with said driven disc in said chamber having an arcuate slot and a circumferential flange; and a resilient locking and positioning means mounted in the housing and extending through said arcuate slot of said driving disc engageable with said correlating registering means on the driven disc for locking and positioning the driven disc with respect to said driving disc.

ROY FOSTER PAULSON.
STANLEY BARTLETT PALMER.

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