Aug. 12, 1969 D. E. SCHMITT ET AL 3,460,663

PLURAL SUCCESSIVELY OPERABLE CHECK CONTROLLED SLIDES

Filed March 12, 1968 4 Sheets-Sheet 1

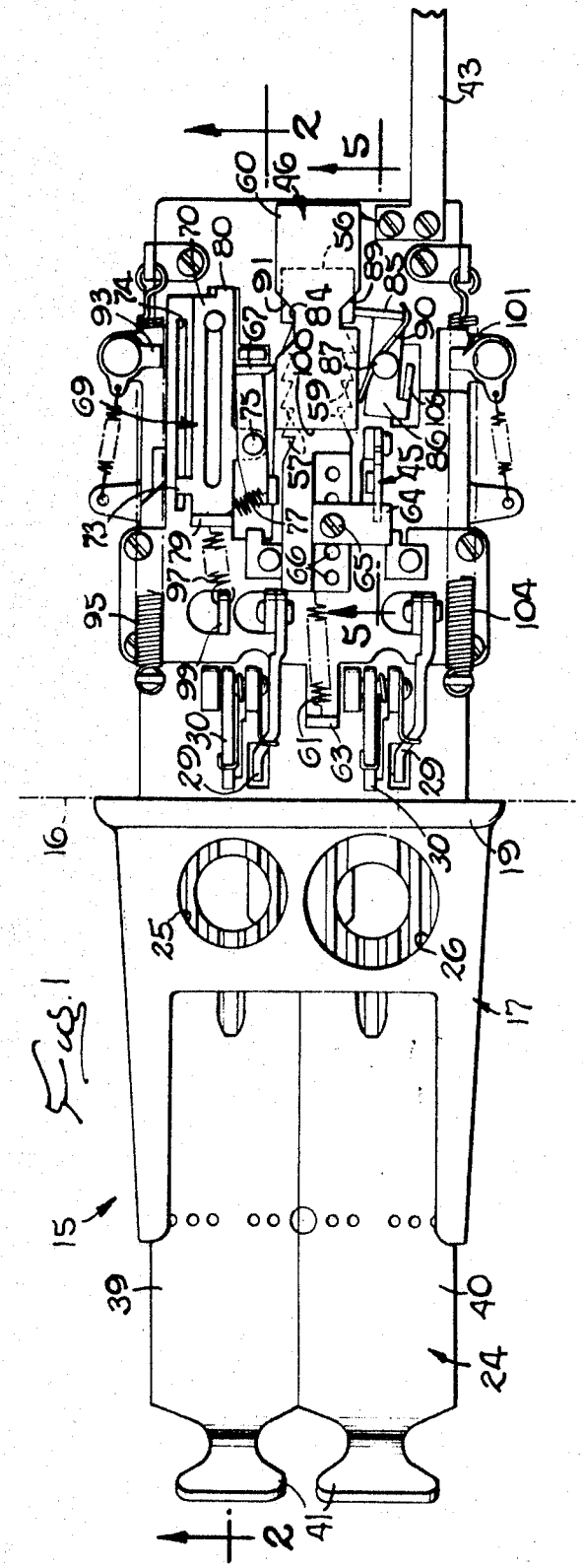

Fig. 1

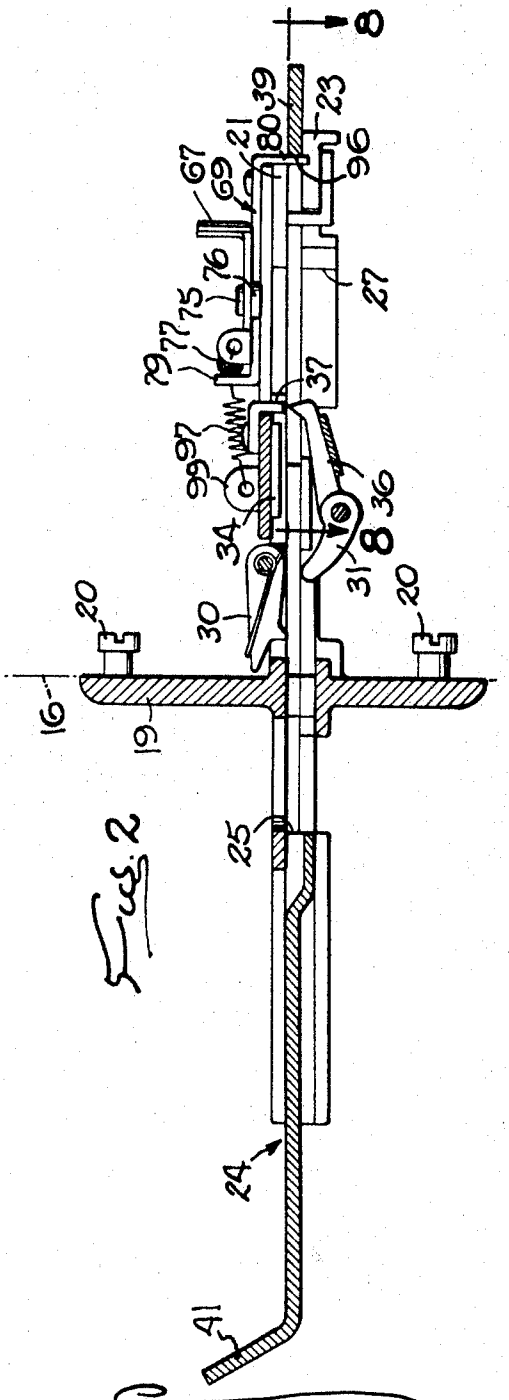

Fig. 2

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Filed March 12, 1968 4 Sheets-Sheet 2

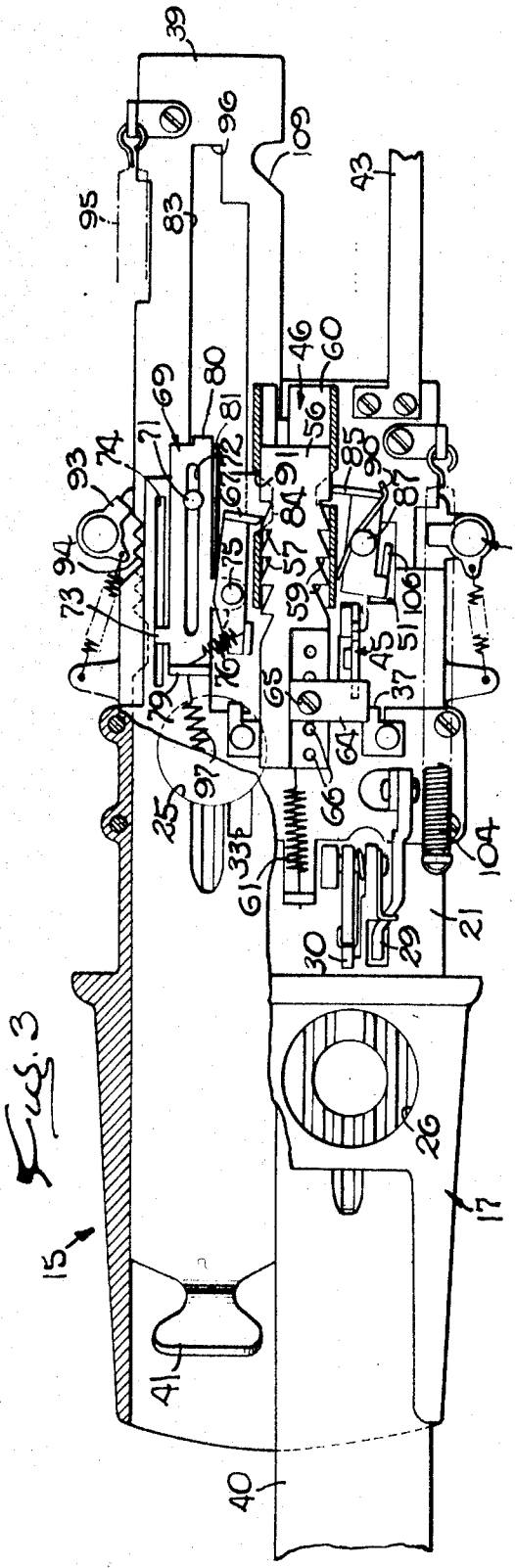

Fig. 3

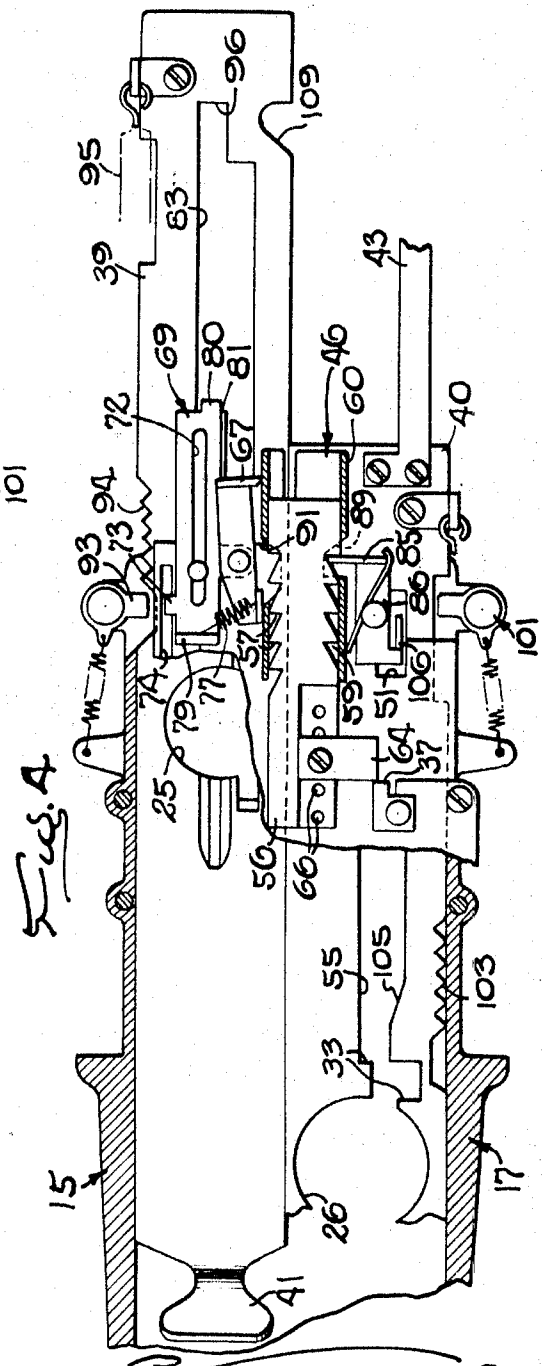

Fig. 4

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Filed March 12, 1968 4 Sheets-Sheet 3

Fig. 5

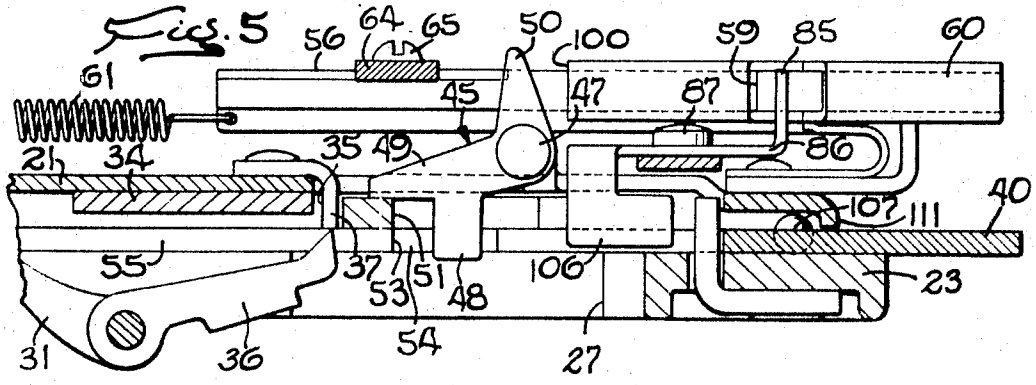


Fig. 6

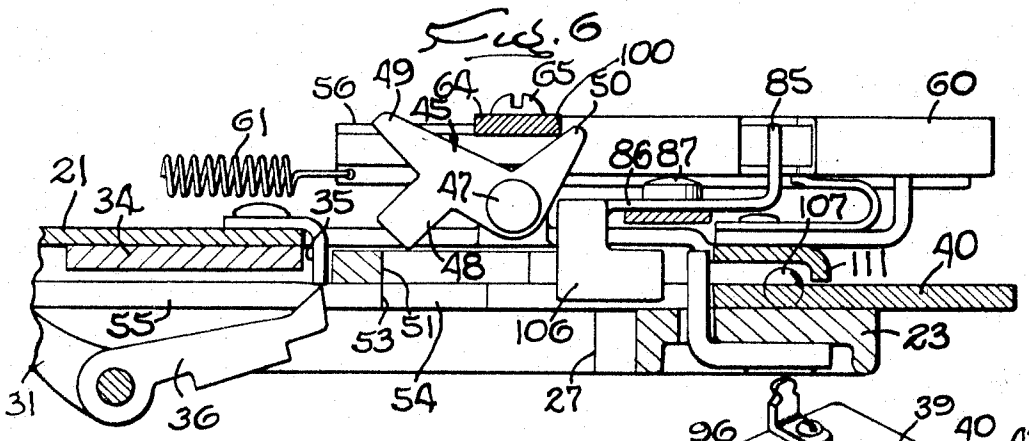
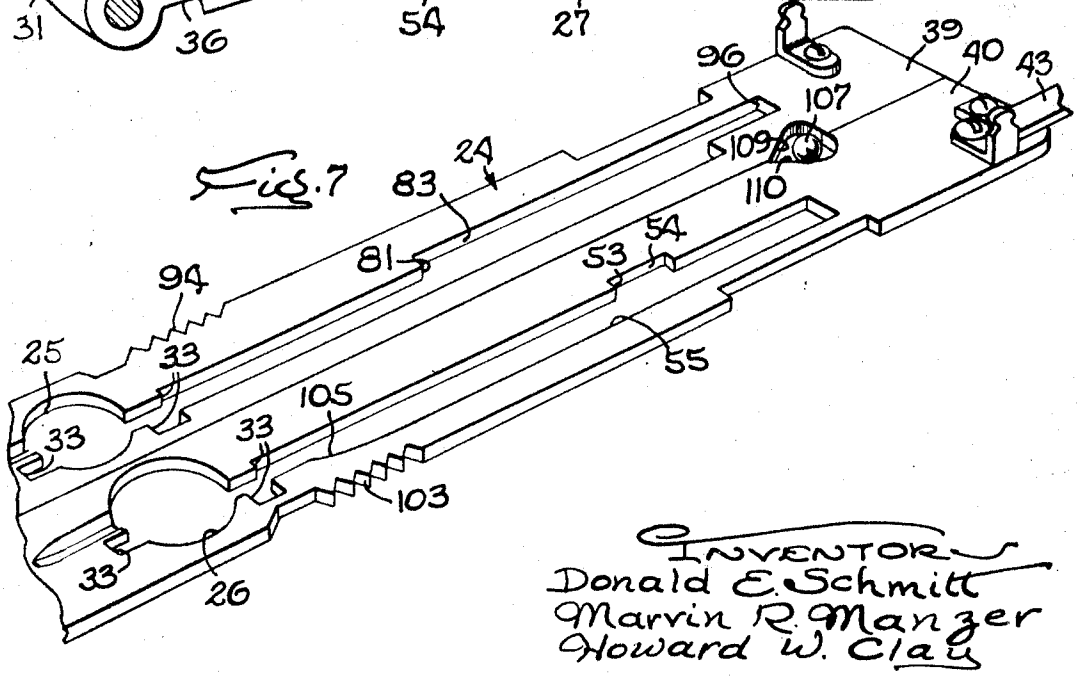


Fig. 7



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Filed March 12, 1968 4 Sheets-Sheet 4

Fig. 8

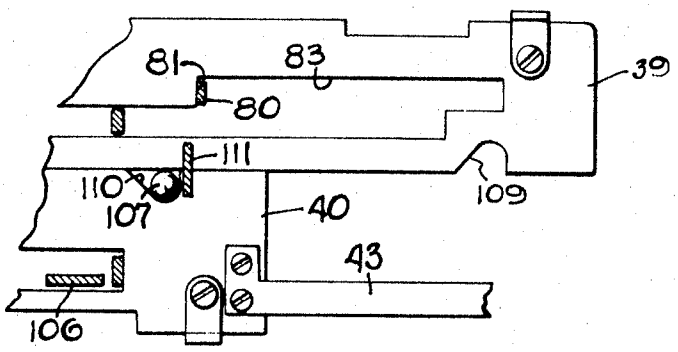


Fig. 9

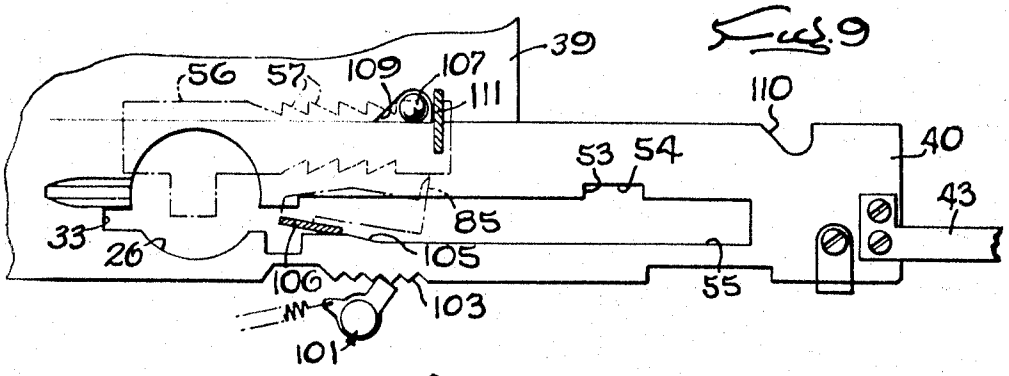


Fig. 10

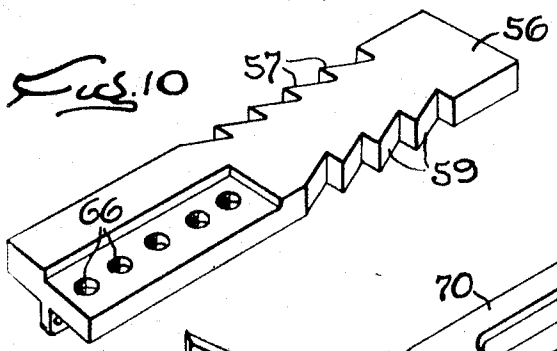


Fig. 11

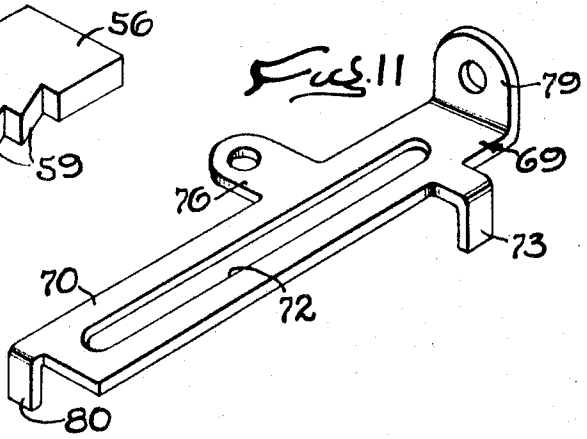
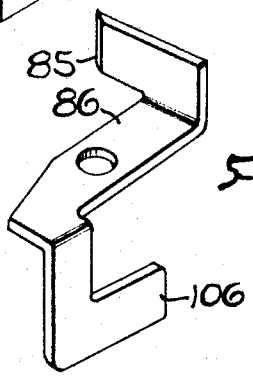


Fig. 12



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PLURAL SUCCESSIVELY OPERABLE CHECK CONTROLLED SLIDES

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Int. Cl. G07f 5/18, 5/14
U.S. Cl. 194—92 22 Claims

ABSTRACT OF THE DISCLOSURE

For delivering coins to and triggering a coin-operated device, a coin chute includes first and second side-by-side slides each adapted to hold coins of a different denomination and each movable inwardly to a coin-depositing position to drop the coins, such movement of the second slide being effective to trigger the device. Movement of the second slide to its coin-depositing position is prevented until the first slide has been moved inwardly a predetermined number of times to deposit a corresponding number of first denomination coins. The chute is adjustable to change the number of first denomination coins which must be deposited before the second slide can be moved inwardly and thus the chute may be changed over to trigger the device upon the deposit of different combinations of first and second denomination coins.

Background of the invention

This invention relates to coin chutes such as are used in conjunction with coin-operated vending machines, coin-operated laundry equipment and other coin-operated devices for accepting coins from a customer and for conditioning such devices for operation in response to the acceptance of a number of coins having a value equal to that of the goods or services to be rendered. More particularly, the invention relates to a mechanical coin chute of the type having a slide mechanism which includes at least two holes for holding coins, usually of different denominations, and which triggers the coin-operated device upon being slid inwardly to a coin-depositing position with the proper combination of coins needed to satisfy the price required by the device.

In prior coin chutes of this character that have found commercial acceptance, changing over of the coin-operated device to effect a change in the price of the goods or services has required replacement of the coin chute with another having a slide mechanism designed to hold a different combination of coins. For example, to condition a device to operate upon accepting thirty-five cents instead of thirty cents, a coin chute with a slide arranged to receive a quarter and a dime must be substituted for a chute with a slide arranged to receive a quarter and a nickel. For establishments which require or desire frequent price changes, this necessitates the stocking of a large inventory of different coin chutes and requires considerable effort to effect the changeover.

Summary of the invention

The primary aim of the present invention is to provide a new and improved coin chute of the above type which may be adjusted quickly and easily to vary within a wide range of the combination of coins that must be received before the coin-operated device is triggered so that a price changeover may be made with a simple adjustment to the chute and without replacing the chute. More specifically, the chute is arranged to accept coins of one denomination and trigger the coin-operated device only after it first has accepted a preselected number of coins which usually are of a second different denomination, the chute being adjustable to enable changing of the number of second denomination coins which must be accepted before a first denomination coin will be accepted.

A more detailed object is to construct the side mechanism as two separate slides, one of which is prevented from moving to its coin-depositing position and triggering the coin-operated device until the other slide has been moved to its coin-depositing position a selectively variable number of times and has deposited a selectively variable number of coins. Moreover, the chute is reset automatically as an incident to the deposit of the required combination of coins in order to prevent subsequent triggering of the coin-operated device before the entire required combination again has been deposited.

The invention also aims to insure against customers cheating the coin-operated device through improper manipulation of the slides in an attempt to prevent resetting of the chute. Another object is to protect the customer against overpaying the device with too many coins.

The invention further resides in the relatively simple and compact construction of the chute together with its ease of adaptability to presently existing coin-operated devices.

Other objects and advantages of the invention will become apparent from the following detailed description taken in connection with the accompanying drawings.

Brief description of the drawings

FIGURE 1 is a plan view of a new and improved coin chute embodying the novel features of the present invention.

FIG. 2 is a cross-section taken substantially along the line 2—2 of FIG. 1.

FIG. 3 is a view similar to FIG. 1 but with parts broken away and with other parts shown in moved positions.

FIG. 4 is a view similar to FIG. 3 but showing the parts in still other moved positions.

FIG. 5 is an enlarged fragmentary cross-section taken substantially along the line 5—5 of FIG. 1.

FIG. 6 is a view similar to FIG. 5 but showing parts in moved positions.

FIG. 7 is an enlarged fragmentary perspective view of the slides for the chute.

FIG. 8 is a fragmentary cross-section taken substantially along the line 8—8 of FIG. 2 but showing the parts in moved positions.

FIG. 9 is a view similar to FIG. 8 but showing the parts in still other moved positions.

FIGS. 10 to 12 are perspective views of various elements of the chute.

Description of the preferred embodiment

As shown in the drawings for purposes of illustration, the invention is embodied in a coin chute **15** adapted for use with various types of coin-operated machines and operable to trigger such a machine into operation as an incident to receiving from the customer and delivering to the machine a number of coins having a value equal to the price of the goods or services to be rendered by the machine. While the chute could be used equally well in conjunction with coin-operated games, coin-operated laundry equipment and other such coin-operated devices, it is shown specifically herein as being attached to the cabinet **16** (FIG. 2) of an automatic vending machine and controlling the dispensing of food articles from the machine.

More specifically, the coin chute **15** is fitted within a hole in the cabinet **16** and includes a substantially horizontal base **17** whose inner half is housed within the cabinet and whose outer half is located outside of the cabinet, the base being formed with an upright mounting flange **19** which is fastened to the cabinet by screws **20**. The base comprises two vertically spaced upper and lower

plates 21 and 23 (FIG. 2) defining between them a guideway for receiving a slide mechanism 24 mounted for in and out sliding on the base between coin-inserting and coin-depositing positions. When the slide mechanism is retracted outwardly to its coin-inserting position (FIG. 1), two coin holes 25 and 26 formed in the slide mechanism aline with a pair of similar holes in the upper base plate 21 to receive coins from the purchaser. As the slide mechanism is pushed inwardly, the coins are carried along the lower base plate 23 by the edges of the holes 25, 26 and usually are dropped into a coin box (not shown) when the slide mechanism nears the end of its inward stroke and reaches its coin-depositing position, the coins falling into the box through openings 27 (FIG. 2) located in the lower base plate.

Conventional anti-cheats are mounted on the base 17 to prevent inward movement of the slide mechanism 24 to is coin-depositing position without coins in the holes 25 and 26, with coins of the wrong denomination in the holes or with slugs or tokens in the holes. Such anti-cheats may include, for example, three spring-urged levers 29, 30 and 31 (FIGS. 1 and 2) mounted pivotally on the base plates 21 and 23 just inwardly of each hole therein and formed with lugs projecting downwardly through the upper plate into the path of a number of abutments 33 (FIG. 7) on the slide mechanism. Genuine and properly sized coins placed in the holes 25 and 26 cam the lugs vertically away from the abutments as the slide mechanism is moved inwardly so that the lugs allow the slide mechanism to pass into its coin-depositing position. With no coins in the holes or with tokens or undersized coins in the holes, the lugs are not cammed away from the abutments and thus engage the latter to lock the slide against further movement after it has been slid inwardly just a slight distance from its coin-inserting position. Ferrous slugs are prevented from enabling movement of the slide mechanism to its coin-depositing position by a pair of permanent magnets 34 (FIG. 5) each overlying the path of one of the coin holes and operable to pull the slugs partially up from the holes and into locking engagement with abutments 35 depending from the upper base plate 21. In addition, upper and lower tape strippers 36 and 37 (FIG. 5) are disposed above and below the path of each coin to strip off any cellophane tape on the coins and thus insure against the coins being returned to the customer when the slide mechanism is retracted.

As a result of the anti-cheats, the slide mechanism 24 cannot be moved inwardly to its coin-depositing position without genuine coins of the proper denomination in the holes 25 and 26. When the slide mechanism is moved inwardly and the chute 15 accepts a combination of coins equal in value to the price of the article to be purchased, the vending machine is triggered and operates in a well known manner to dispense the article.

In accordance with the primary aspect of the present invention, the coin chute 15 accepts coins of one denomination and triggers the vending machine only after first accepting a preselected number of coins of a second and usually different denomination. Moreover, the chute may be adjusted to change within a wide range the number of second denomination coins which must be accepted before the first denomination coin will be accepted. In this way, the machine may be conditioned to dispense the articles in response to the payment of a selected one of many different combinations of coins simply by adjusting the chute thereby enabling the price of the articles to be changed quickly and easily and without requiring replacement of the chute with another arranged to accept a different combination of coins.

In this specific instance, these ends are achieved by forming the slide mechanism 24 as two separate slides 39 and 40 (FIGS. 1 and 7), the slide 40 being effective to trigger the vending machine upon being moved to its coin-depositing position and being movable to such position only after the slide 39 has been moved to its coin depositing position a predetermined and selectively variable number of times. As shown in FIG 1, the two slides 39 and 40 are disposed side-by-side on the base 17 and each is formed at its outer end with an upturned finger grip 41 by which the slide may be moved inwardly and outwardly separately of the other slide. The coin holes 25 and 26 are formed in the slides 39 and 40, respectively, and, by way of example, the hole 25 is shown as being sized to receive a nickel and the hole 26 is shown as being sized to receive a quarter.

Assuming for purposes of discussion that the article to be purchased has a value of forty cents, the vending machine may be triggered by inserting three successive nickels in the hole 25 of the nickel slide 39 and pushing the latter to its coin-depositing position (FIG 4) three times to drop the nickels in the coin box, the nickel slide being pushed in once after each nickel is inserted into the hole. Thereafter, a quarter is placed in the hole 26 of the quarter slide 40 and this slide is pushed inwardly to its coin-depositing position (FIG. 9) to drop the quarter. With continued inward movement of the quarter slide after the quarter has been dropped, an operating finger 43 carried on the inner end of the quarter slide engages and trips a starting switch (not shown) or other triggering element associated with the vending machine thereby causing the machine to dispense an article. Thus, movement of the quarter slide to its coin-depositing position triggers the machine.

In carrying out the invention, a retainer 45 (FIG. 5) prevents the quarter slide 40 from moving to its coin-depositing position and triggering the machine, even when a quarter is in the hole 26, until the nickel slide 39 has been moved to its coin-depositing position a preselected number of times, herein three such times for a forty cent article. A counter 46 on the base detects inward movement of the nickel slide to its coin-depositing position and, when such slide has been moved inwardly three times, acts to disable the retainer 45 thereby to free the quarter slide for movement to its coin-depositing position to trigger the machine with the operating finger 43. As a result, the quarter slide is released to move to its coin-depositing position only after three nickels first have been deposited thus insuring that the machine will not be triggered to dispense the article until forty cents have been received.

More particularly, the retainer 45 (FIG. 5) comprises a bellcrank lever mounted pivotally on the upper base plate 21 by a pin 47 and formed with three angularly spaced arms 48 to 50. Normally, the retainer is disposed in a holding position (FIG. 5) in which the arm 48 projects downwardly through a hole 51 in the upper base plate and into the path of an abutment 53 formed by the rear edge of a notch 54 (FIG. 7) which opens into an elongated slot 55 formed in the quarter slide 40. Thus, when the quarter slide is moved a slight distance inwardly from its coin-inserting position (FIG. 5), the abutment 53 engages the arm 48 to prevent further inward movement of the slide. When the retainer is swung upwardly about the pin 47 to a release position (FIG. 6), the arm 48 is moved away from the abutment 53 to free the quarter slide for inward movement to its coin-depositing position.

To detect the inward movement of the nickel slide 39 and disable the retainer 45 in response to the payment of three nickels, the counter 46 comprises a ratchet member 56 (FIGS. 3 and 10) in the form of an elongated bar formed on opposite sides with rows of teeth 57 and 59 and mounted for in and out sliding within a tubular casing or guard 60 which is attached to the upper base plate 21. Each time the nickel slide 39 is moved inwardly, the ratchet 56 is advanced inwardly through one step from a starting position (FIG. 1) against the action of a contractile spring 61 stretched between the outer end of the ratchet and an ear 63 on the upper base plate 21. Carried on and advanceable with the ratchet is a release

element which herein comprises a finger 64 attached to the upper side of the ratchet and engageable with the retainer 45 to release the latter only when the ratchet has advanced through a preselected number of steps. In this instance, the inner edge of the finger engages the arm 50 of the retainer (see FIG. 6) and swings the retainer upwardly to its release position about the pin 47 after the ratchet has been advanced through three steps as an incident to inward movement of the nickel slide 39 three times to deposit a corresponding number of nickels. With the retainer tripped by the deposit of three nickels, the quarter slide 40 then is released and may be moved inwardly to deposit the quarter and trigger the vending machine.

Advantageously, the finger 64 is attached to the ratchet 56 by a screw 65 (FIG. 1) which may be threaded selectively into any one of a series of five holes 66 formed in the ratchet and spaced from one another a distance equal to the length of each step through which the ratchet is advanced. Thus, the finger may be adjusted either inwardly or outwardly along the ratchet to trip the retainer 45 after the ratchet has been advanced through fewer than three steps or more than three steps. Accordingly, by simply changing the position of the screw and the finger, the retainer may be released to free the quarter slide 40 to move inwardly after any number of nickels ranging from one to five has been deposited. As a result, the present coin chute 15 is capable of being changed over quickly and easily to trigger the vending machine upon payment of any amount varying in five cent increments from thirty cents to fifty cents.

To advance the ratchet 56 inwardly as an incident to inward movement of the nickel slide 39, a stepping mechanism in the form of a pawl 67 (FIG 1) engages one of the teeth 57 on the ratchet and advances the latter one step each time the nickel slide is pushed inwardly to its coin-depositing position. Herein, the pawl is mounted for swinging toward and away from the ratchet on a lost-motion connection 69 (FIGS. 1 and 11) operable to transmit movement of the nickel slide to the pawl after the nickel slide has been moved inwardly from its coin-inserting position sufficiently far to carry the nickel past the anti-cheat levers 29 to 31. The lost-motion connection 69 comprises a connecting plate 70 (see FIGS. 1 and 11) guided for in and out sliding on the upper base plate 21 by an upright pin 71 projecting upwardly through an elongated slot 72 formed in the connecting plate and by a depending lug 73 on the connecting plate projecting into a slot 74 (FIG. 1) in the upper base plate. The pawl is swingly mounted on a rivet 75 (FIG. 1) extending through an ear 76 on the plate 70, and is urged about the rivet toward the ratchet by a contractile spring 77 stretched between the pawl and an ear 79 which is turned upwardly from the outer end of the connecting plate. Near its inner end, the connecting plate is formed with a depending lug 80 (FIG. 11) which projects downwardly into the path of an abutment 81 (FIG. 7) defined by an offset edge of an elongated slot 83 formed through the nickel slide.

When the nickel slide 39 is retracted to its coin-inserting position, the slide abutment 81 is spaced outwardly of the connecting plate lug 80. Thus the connecting plate remains stationary as the nickel slide is initially moved inwardly to carry the nickel past the anti-cheat levers 29 to 31. During this time, the pawl 67 is urged against the side of the ratchet guard 60 by the spring 77 and, as shown in FIG. 1, is located outwardly of an opening 84 formed in the guard alongside the ratchet teeth 57. Once the nickel has cleared the anti-cheat levers thus insuring that the coin in genuine, the abutment 81 engages the lug 80 (see FIG. 8) so that continued inward movement of the nickel slide causes the connecting plate 70 to slide inwardly along the pin 71. The pawl is carried inwardly with the connecting plate into alinement with the opening 84 and is urged into engagement with one of the ratchet teeth 57 (see FIG. 3) to advance the ratchet 56 inwardly through one step as the nickel slide continues its inward movement. Outward return of the ratchet under the action of the spring 61 is prevented by a detent 85 (FIGS. 4 and 12) formed on one end of a lever 86 which is mounted pivotally on a pin 87 on the upper base plate 21. The detent is located adjacent an opening 89 formed in the side of the guard opposite the opening 84 and is yieldably urged into engagement with the ratchet teeth 59 by a torsion spring 90.

As soon as the ratchet 56 has been advanced one step, a cam surface 91 (FIG. 4) formed by the inner edge of the opening 84 engages the pawl 67 to swing the latter away from the ratchet and back alongside the side of the guard 60 (see FIG. 4) thus to insure that the ratchet will not be advanced more than one step during continued inward movement of the nickel slide 39. Finally, the nickel slide reaches its coin-depositing position and drops the nickel through the opening 27 into the coin box. Between the time the pawl 67 engages the ratchet 56 and the time the nickel slide reaches its full coin-depositing position, retraction of the slide is prevented by a detent 93 (FIG. 3) pivoted on the base 17 and urged into engagement with a series of serrations 94 formed alone the side edge of the nickel slide. This insures that the purchaser cannot retract the slide with the nickel still in the hole 25 after first pushing the slide inwardly only far enough to step the ratchet with the pawl. Since the lost-motion connection 69 prevents advancement of the pawl into engagement with the ratchet until the nickel has cleared the anti-cheat levers 29 to 31, the chute thus is virtually cheat-proof.

As the nickel slide 39 reaches its coin-depositing position, the serrations 94 move past the detent 93 so that the slide is free to return outwardly. A contractile spring 95 (FIG. 1) stretched between the base 17 and the nickel slide automatically retracts the latter to its coin-inserting position as soon as the purchaser releases the finger grip 41. As the slide is returned, the inner edge 96 (FIG. 7) of the slot 83 in the nickel slide engages the lug 80 on the connecting plate 70 to retract the connecting plate and the pawl 67 outwardly to their starting positions (FIG. 1) in which they are retained yieldably by a spring 97 stretched between the ear 79 on the connecting plate and a similar ear 99 on the upper base plate 21.

Each additional time the nickel slide 39 is moved inwardly, the pawl 67 engages the next successive tooth 57 on the ratchet 56 to advance the latter inwardly one step and thus move the finger 64 closer to the arm 50 of the retainer 45. With the screw 65 inserted into the middle one of the holes 66 in the ratchet, the finger engages the arm 50 and swings the retainer to its release position (FIG. 6) as the ratchet is advanced through its third step as an incident to the deposit of the third nickel. Advantageously, the finger coacts with the outer end 100 (FIGS. 1 and 6) of the guard 60 and prevents more than three nickels from being deposited. If the purchaser inserts a fourth nickel in the nickel slide and moves the slide inwardly without first pushing in the quarter slide 40, the inner edge of the finger 64 engages the outer end 100 of the guard 60 to prevent the ratchet from being fully advanced through a fourth step. The pawl 67 and the connecting plate 70 become locked by the ratchet and prevent inward movement of the nickel slide to its coin-depositing position so that the fourth nickel is returned to the customer when the slide is retracted. The outer end of the guard thus forms an overpay restrictor which protects the purchaser against depositing too many nickels. When the finger is set at different positions along the ratchet, its inner edge is, of course, moved closer to or farther away from the outer end of the guard thereby automatically conditioning the chute 15 to refuse any nickels in addition to those dictated by the new setting of the finger.

Once the retainer 45 has been released by the finger 64, the quarter slide 40 may be moved inwardly to permit the operating finger 43 to trigger the vending machine. As

the quarter slide approaches its coin-depositing position, a pivoted detent 101 (FIG. 9) engages serrations 103 on the side of the slide to prevent the latter from being moved in and out through a short stroke to trigger the machine repeatedly. When the quarter has been dropped, the slide 40 is retracted automatically by a spring 104 (FIG. 1) as soon as the purchaser releases the finger grip 41.

As an incident to inward movement of the quarter slide 40 after the depositing of three nickels, the counter 46 is reset automatically and the retainer 45 is returned to its holding position so that the purchaser will not be able to receive an additional article simply by inserting another quarter into the chute 15 without first depositing three more nickels. For this purpose, a cam surface 105 (FIGS. 7 and 9) is formed along one side of the slot 55 in the quarter slide 40 and engages a depending arm 106 (FIG. 12) on the detent lever 86 to swing the detent 85 away from the ratchet teeth 59 as shown in FIG. 9, as the quarter slide reaches its coin-depositing position. With the detent 85 released from the teeth, the ratchet 56 is returned outwardly to its starting position under the urging of the contractile spring 61. During the return of the ratchet, the outer edge of the finger 64 engages the arm 49 of the retainer 45 to swing the holding arm 48 back downwardly toward the quarter slide and into position to fall into the notch 54 when the quarter slide is subsequently retracted. Since the pawl 67 is held away from the ratchet teeth 57 by the outer end portion of the guard 60, the pawl does not interfere with the return movement of the ratchet when the detent 85 is released. Thus, the ratchet and the retainer are reset automatically when a quarter is deposited.

Means are provided for precluding the purchaser from manipulating the nickel slide 39 in such a manner as to prevent the ratchet 56 from resetting and returning to its starting position when the quarter slide 40 is pushed inwardly. Herein, these means comprise a latching element 107 (FIG. 8) which locks the quarter slide against movement to its coin-depositing position, even though the retainer 45 is released, until the nickel slide has been retracted fully to its coin-inserting position. With this arrangement, the purchaser cannot push the quarter slide inwardly and release the detent 85 from the ratchet teeth 59 while holding the nickel slide in an intermediate position with the pawl 67 locked against teeth 57 to prevent return of the ratchet. Accordingly, the purchaser is prevented from cheating the machine by depositing three nickels, holding the nickel slide in an intermediate position and then simply depositing more quarters to receive an additional article for each quarter.

As shown in FIGS. 7 and 8, the latching element 107 herein is in the form of a spherical metal ball which rolls on the lower base plate 23 and which is confined within notches 109 and 110 formed in the adjacent sides of the slides 39 and 40. The ball 107 is sufficiently small to fit entirely within either notch and, when both slides are retracted fully (see FIG. 7), the notches are alined with one another such that the ball is free to roll from one notch to the other. When the nickel slide is pushed inwardly with the quarter slide retracted, the ball is cammed out of the notch 109 and into the notch 110 by an inclined outer edge of the notch 109. If an attempt then is made to push the quarter slide inwardly, the ball locks between the side edge of the nickel slide, the outer edge of the notch 110 and the outer surface of a lug 111 (FIGS. 6 and 8) depending from the upper base plate 21 and overlying the slides adjacent the inner ends of the notches 109 and 110. Thus, the lug 111 and the outer edge of the notch 110 form abutments between which the ball lodges to prevent inward movement of the quarter slide as long as the nickel slide is pushed inwardly from its coin-inserting position. Accordingly, the quarter slide cannot be pushed inwardly to deposit the quarter if the nickel slide is held inwardly in such a position to prevent resetting of the ratchet 56.

Once the nickel slide has been retracted fully, the notches 109 and 110 again become alined with one another. If the retainer 45 has been released by the deposit of three nickels, the quarter slide then may be moved inwardly to trigger the machine. During initial inward movement of the quarter slide, the outer edge of the notch 110 cams the ball 107 out of the notch 110 into the notch 109 thus freeing the quarter slide for continued inward movement to its coin-depositing position.

From the foregoing, it will be apparent that the new and improved coin chute 15 of the present invention is easily adjustable to trigger the coin-operated machine in response to receiving different selected combinations of coins and thus is particularly advantageous when used with machines in which frequent price changes are desirable or necessary. Cheating of the machine by the customer is practically impossible since the two slides 39 and 40 interact with one another to prevent dishonest manipulation of the slides. Moreover, the chute is only slightly more expensive than those with a single, multiple-hole slide capable of accepting only one combination of coins, and may be substituted for such chutes in presently existing coin-operated machines without requiring any significant alterations in the machines since the operating finger 43 is located in approximately the same position as in the prior chutes.

We claim as our invention:

1. In a coin chute, the combination of, a base, first and second side-by-side slides each having a hole for holding a coin and each mounted for in and out sliding on said base between coin-inserting and coin-depositing positions, anti-cheats on said base preventing movement of each slide to said coin-depositing position unless a genuine coin is inserted in the hole of such slide, a retainer on said base normally disposed in a holding position preventing movement of said second slide to its coin-depositing position regardless of whether a coin is inserted in the hole of the second slide, said retainer being movable on said base to a release position permitting movement of said second slide to its coin-depositing position, a counter on said base for detecting inward sliding of said first slide to its coin-depositing position, said counter comprising a member mounted for step-by-step advancement on said base from a starting position, stepping mechanism movable by said first slide and engageable with said member to advance the latter through one step each time said first slide is moved inwardly to its coin-depositing position, a release element carried on said member and engageable with said retainer to move the latter to said release position after the member has been advanced through a predetermined number of steps from said starting position, means mounting said release element for selective adjustment relative to said retainer to enable changing of the number of steps through which the member must be advanced before said release element engages said retainer, and reset mechanism responsive to inward sliding of said second slide to its coin-depositing position and operable to return said member to said starting position.

2. A coin chute as defined in claim 1 further including a latch on said base preventing movement of said second slide to its coin-depositing position until after said first slide has been returned toward its coin-inserting position even though said retainer is in said release position and even though a coin is in the hole of the second slide.

3. A coin chute as defined in claim 1 further including an overpay restrictor on said base for preventing further movement of said first slide to its coin-depositing position after said member has been advanced through said predetermined number of steps even though a coin is in the hole of the first slide.

4. A coin chute as defined in claim 1 in which said member comprises a ratchet mounted for movement on said base, said stepping mechanism comprising a pawl movable by said first slide and engageable with said ratchet to advance the latter one step each time said first slide is moved to its coin-depositing position.

5. A coin chute as defined in claim 4 further including a lost-motion connection between said first slide and said

pawl and operable to move said pawl only after said first slide has been moved inwardly a predetermined distance from said coin-inserting position.

6. A coin chute as defined in claim 5 in which said ratchet comprises an elongated bar formed with a row of teeth along one side and mounted for in and out sliding on said base, said pawl being mounted pivotally on said lost-motion connection and being urged toward said one side of said bar to engage one of said teeth and advance said bar inwardly through one step each time said first slide is moved inwardly to its coin-depositing position, and means for camming said pawl away from said teeth after said bar has been advanced through one step and for thereafter holding the pawl away from the teeth during continued inward movement of said first slide.

7. A coin chute as defined in claim 4 in which said ratchet comprises an elongated bar formed with a row of teeth along one side and mounted for in and out sliding on said base, said pawl being mounted pivotally with respect to said first slide and being urged toward said one side of said bar, a guard protecting said one side of said bar and normally holding said pawl away from said teeth, an opening in said guard permitting said pawl to swing inwardly into engagement with a tooth alined with the opening after said pawl has been moved by said first slide, and means on said guard for camming said pawl away from said teeth after said bar has been advanced through one step and for thereafter holding the pawl away from the teeth during continued inward movement of said first slide.

8. A coin chute as defined in claim 7 further including a second row of teeth formed on the other side of said bar, and said reset mechanism comprising a spring connected to said bar and urging the latter toward said starting position, a detent pivotally mounted on said base and yieldably urged into engagement with the teeth of said second row to hold the bar in the position to which it is advanced by said pawl, and means operable as an incident to movement of said second slide to its coin-depositing position to move said detent out of engagement with the teeth of said second row thereby to allow said bar to return to said starting position under the action of said spring.

9. A coin chute as defined in claim 4 in which said release element is carried on and movable with said ratchet and is mounted on said ratchet for adjustment to positions spaced from one another a distance equal to the length of each step of advance undertaken by the ratchet.

10. A coin chute as defined in claim 4 in which said means for adjustably mounting said release element comprise a series of holes in said ratchet spaced from one another a distance equal to the length of each step of advance undertaken by the ratchet, and a fastener insertable into any selected one of said holes for attaching said release element to said ratchet.

11. A coin chute as defined in claim 4 in which said release element moves in and out with said ratchet in a predetermined path as the latter is advanced from and returned to said starting position, said retainer being pivotally mounted on said base and having one arm normally locking said second slide against movement to its coin-depositing position and having a second arm normally projecting into the path of advance of said release element, and said release element engaging said second arm upon being advanced through said predetermined number of steps and turning said retainer in one direction to unlock said one arm from said second slide.

12. A coin chute as defined in claim 11 in which said retainer further includes a third arm turnable into the path of return of said release element as an incident to engagement of the latter with said second arm, said release element engaging said third arm upon being returned to said starting position and turning said retainer in the opposite direction to return said first arm into position to lock said second slide.

13. A coin chute as defined in claim 3 in which said overpay restrictor comprises an abutment on said base engageable with said release element to prevent advancement of said member beyond said predetermined number of steps.

14. A coin chute as defined in claim 9 further including an abutment on said base engageable with said release element to prevent advancement of said ratchet beyond said predetermined number of steps, said release element being disposed different distances away from said abutment when adjusted to different positions on said ratchet.

15. A coin chute as defined in claim 2 in which said latch comprises opposing abutments on said base and said second slide, and a latching element movable to a position between said abutments as an incident to sliding of said first slide to its coin-depositing position and releasable from said abutments when said first slide is disposed in its coin-inserting position.

16. A coin chute as defined in claim 15 in which the adjacent sides of said slides are formed with notches alined with one another when said slides are both in said coin-inserting positions, the abutments on said base and said second slide being located adjacent the inner and outer ends, respectively, of the notch on the second slide, and said latching element comprising a ball located between said slides and sufficiently small to fit into either notch, said ball being cammed into the notch in the second slide and between the abutments as the first slide is moved toward its coin-depositing position, and said ball being cammed into the notch of the first slide and out from between the abutments as the second slide is moved toward its coin-depositing position with the first slide in its coin-inserting position.

17. In a coin chute for triggering a coin-operated machine, the combination of, a base, first and second side-by-side slides each adapted to hold a coin and each mounted for in and out sliding on said base between coin-inserting and coin-depositing positions, a retainer movably mounted on said base and normally preventing movement of said second slide to its coin-depositing position, a counter on said base for detecting the inward sliding of said first slide to its coin-depositing position and operable in response to movement of such slide to such position a preselected number of times to disable said retainer and permit movement of said second slide to its coin-depositing position, means for selectively adjusting said counter to change the number of times said first slide must be moved to its coin-depositing position before the counter disables said retainer, mechanism responsive to movement of said second slide to its coin-depositing position to reset said counter and thereby prevent subsequent movement of said second slide to its coin-depositing position until said first slide again has been moved to its coin-depositing position said preselected number of times, and an operator movable with said second slide and adapted to trigger the coin-operated machine as an incident to movement of the second slide to its coin-depositing position.

18. In a coin chute, the combination of, a base, first and second side-by-side slides each adapted to hold a coin and each mounted for in and out sliding on said base between coin-inserting and coin-depositing positions, a retainer movably mounted on said base and normally preventing movement of said second slide to its coin-depositing position, a counter on said base for detecting the inward sliding of said first slide to its coin-depositing position and operable in response to movement of such slide to such position a preselected number of times to disable said retainer and permit movement of said second slide to its coin depositing position, and means acting after disablement of said retainer for preventing movement of said second slide to its coin-depositing position

until said first slide has been returned from its coin-depositing position toward its coin-inserting position.

19. A coin chute as defined in claim 18 in which said counter comprises a ratchet mounted for step-by-step advancement on said base and movable through one step each time said first slide is moved to its coin-depositing position, a release element carried on said ratchet and engageable with said retainer to disable the latter after the ratchet has been advanced through a predetermined number of steps, and means mounting said release element to various selected positions on said ratchet to enable changing of the number of steps through which the ratchet must be advanced before the release element engages the retainer.

20. A coin chute as defined in claim 19 further including means on said base engageable with said release element to prevent further advancement of said ratchet after the latter has moved through said predetermined number of steps.

21. In a coin chute, the combination of, a base, a slide mechanism having first and second spaced holes for holding coins of first and second denominations and mounted for inward sliding on said base to carry the coins to a coin-depositing position at which the coins may be accepted from the holes, a retainer on said base normally preventing acceptance of coins of said second denomination, a counter on said base for detecting the inward sliding of coins of said first denomination to said coin-depositing position and and operable in response to the detection of a predetermined number of such coins to disable said retainer and permit acceptance of coins of said second denomination and means for selectively adjusting said counter to change the number of first denomination coins which must be detected before the counter responds to disable said retainer.

22. In a coin chute, the combination of, a base, first and second slides each adapted to hold a coin and each mounted for in and out sliding on said base between coin-inserting and coin-depositing positions, and means on said base for preventing movement of said second slide to its coin-depositing position until said first slide has been moved to its coin-depositing position a preselected number of times.

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