July 10, 1923. 1,461,613

W. H. GILBERT

VENDING MACHINE

Filed April 25, 1922 5 Sheets-Sheet 1

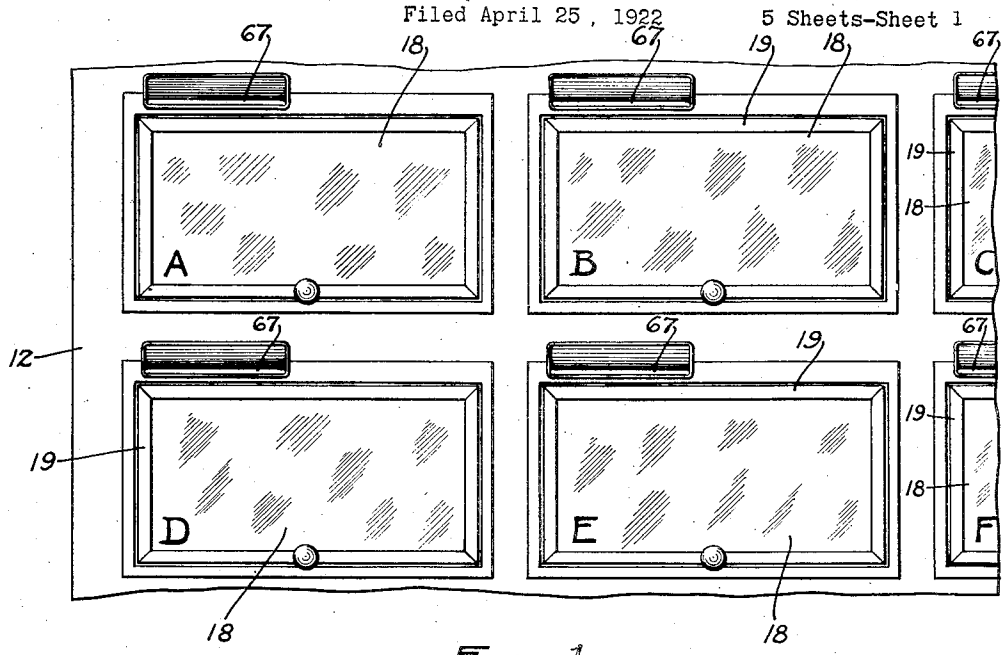



FIG. 1

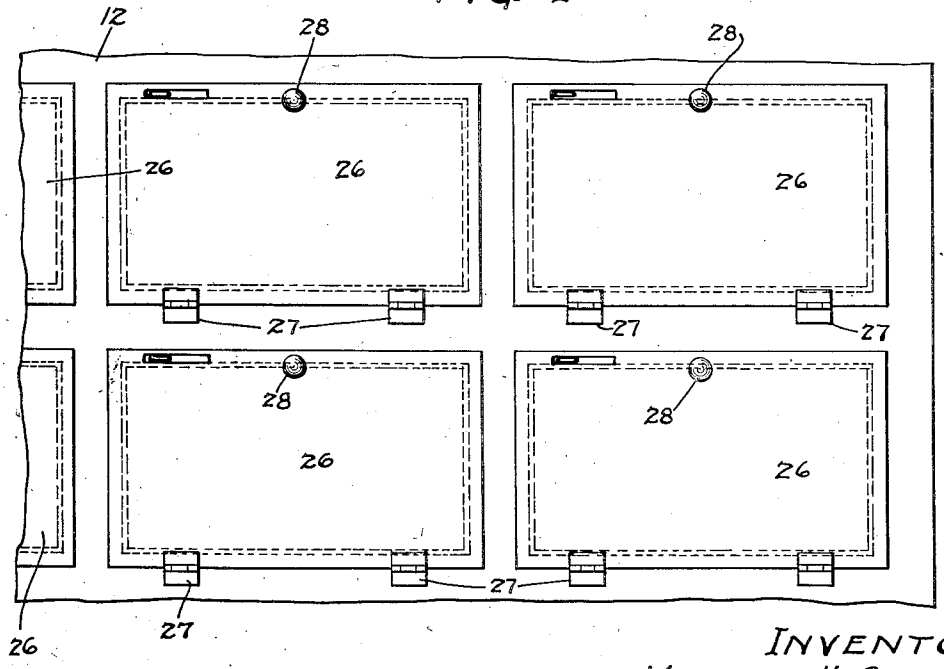



FIG. 2

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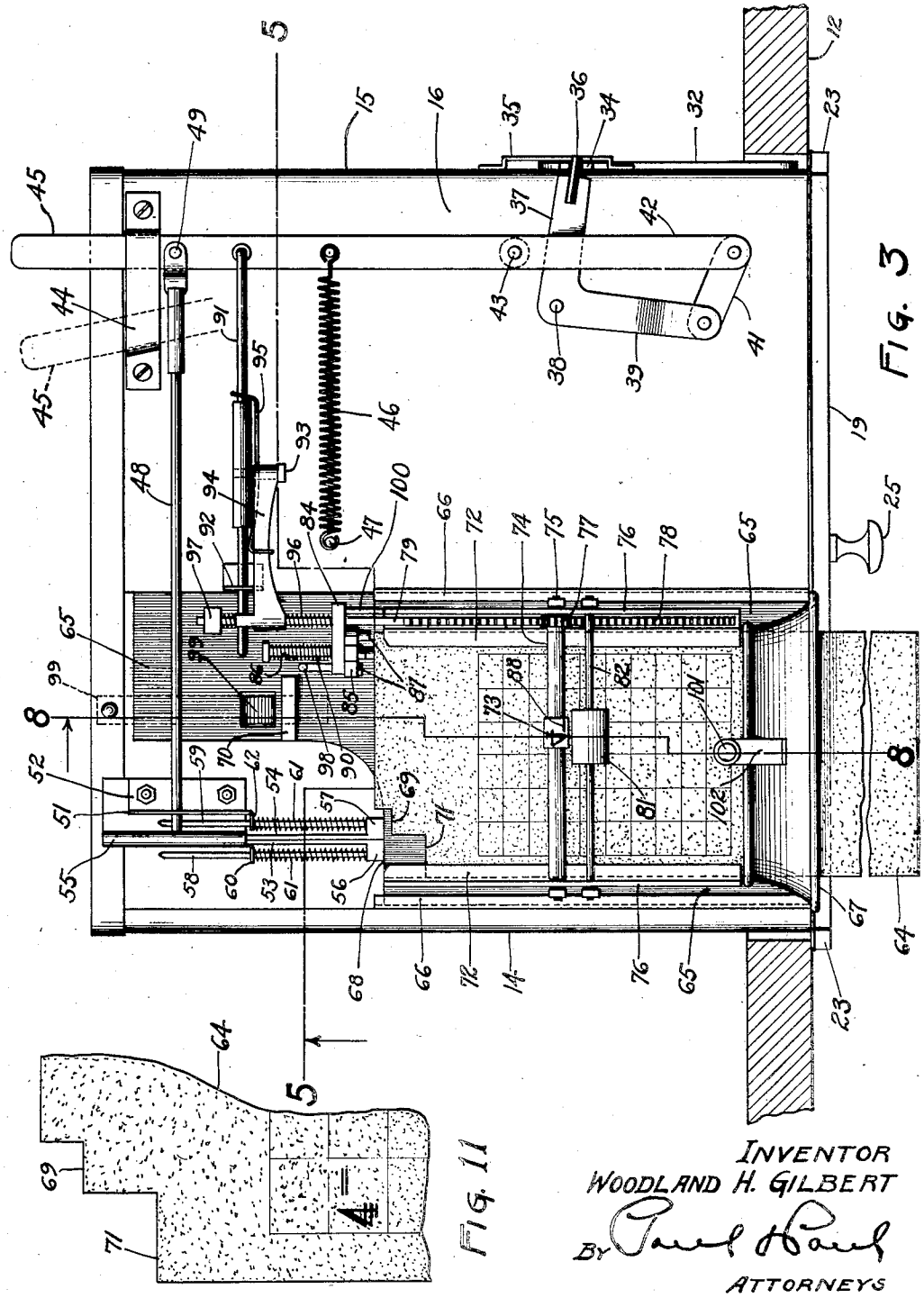


FIG. 3



FIG. 11

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VENDING MACHINE

Filed April 25, 1922 5 Sheets-Sheet 3

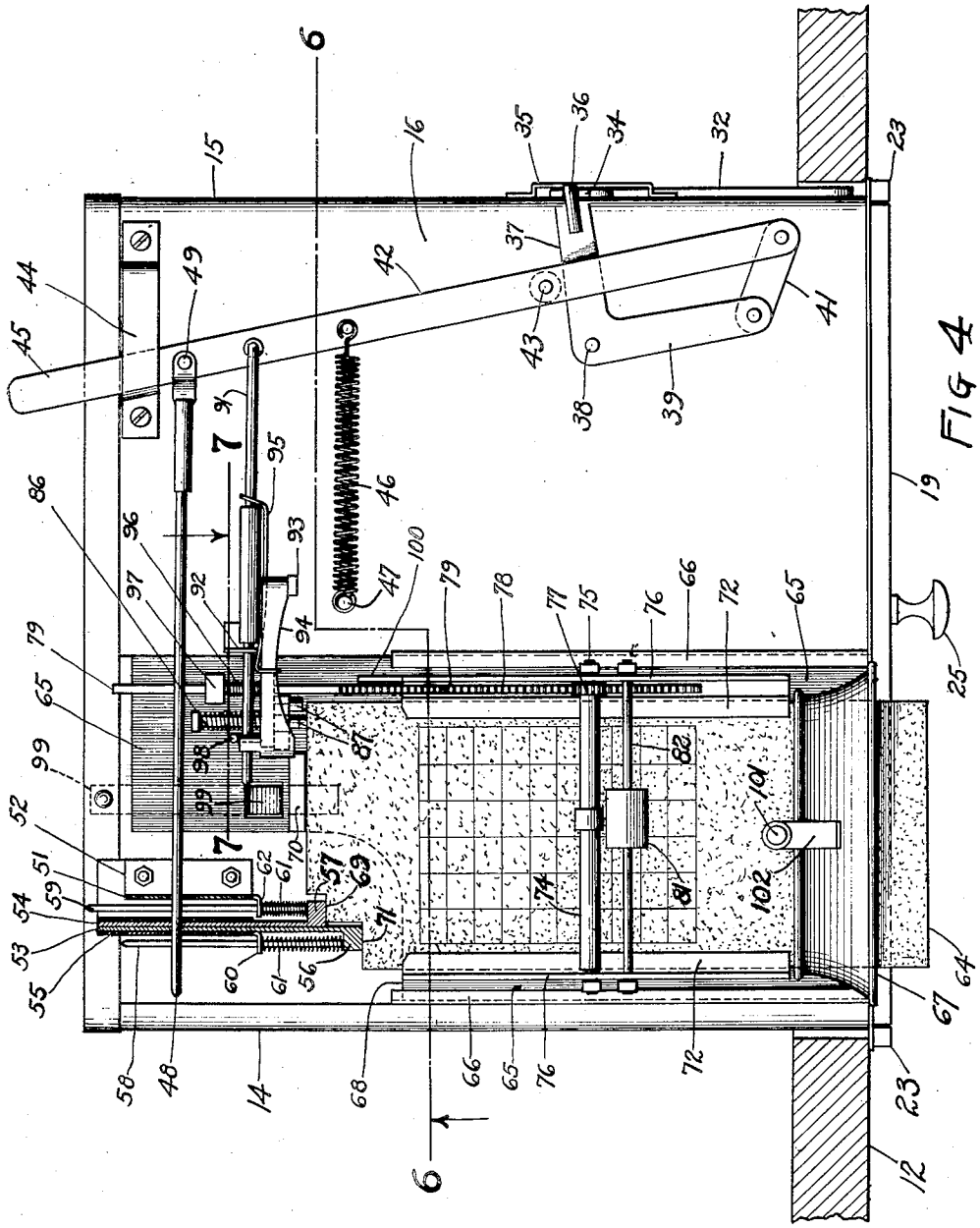



FIG 4

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1,461,613

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Filed April 25, 1922

5 Sheets-Sheet 4

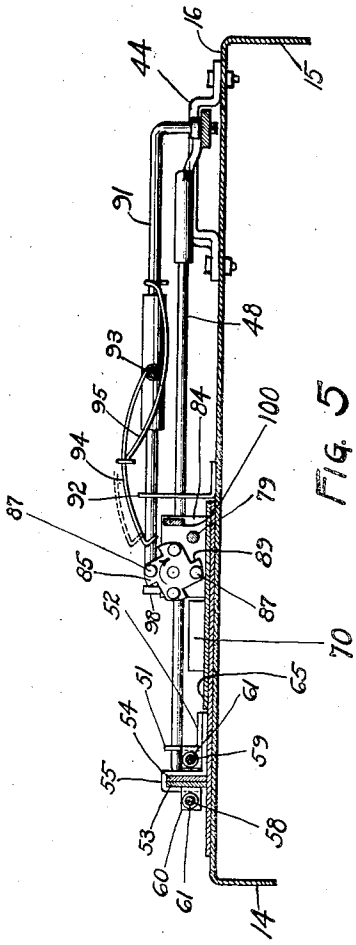


FIG. 5

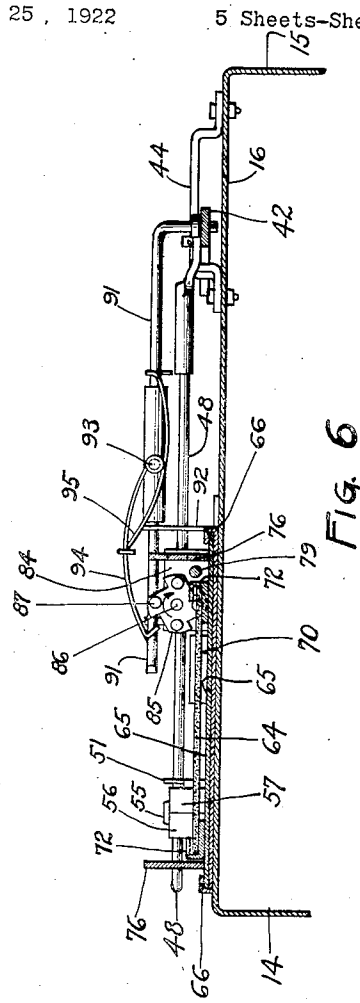


FIG. 6

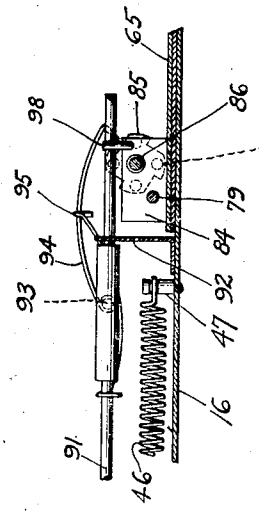


FIG. 7

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Filed April 25, 1922 5 Sheets-Sheet 5

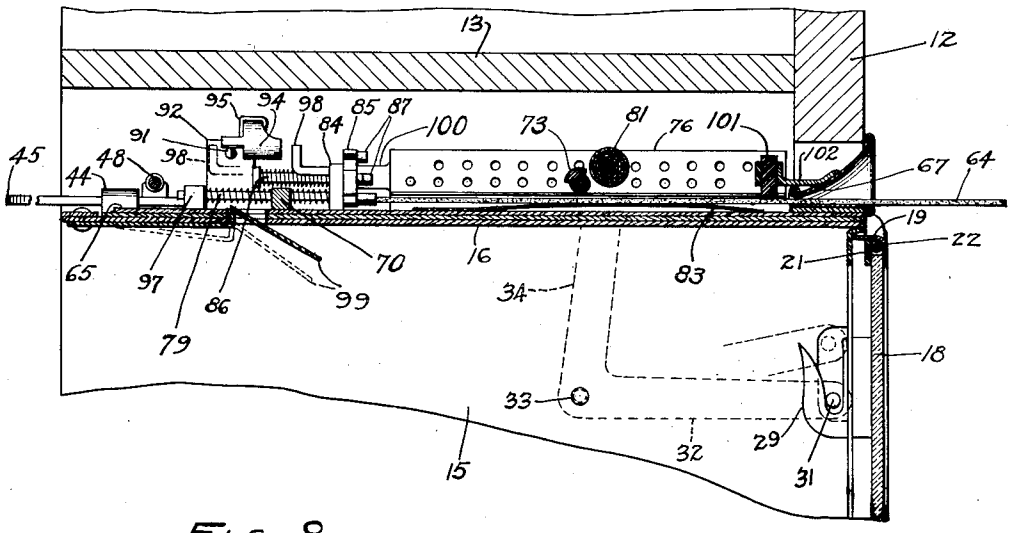



FIG. 8

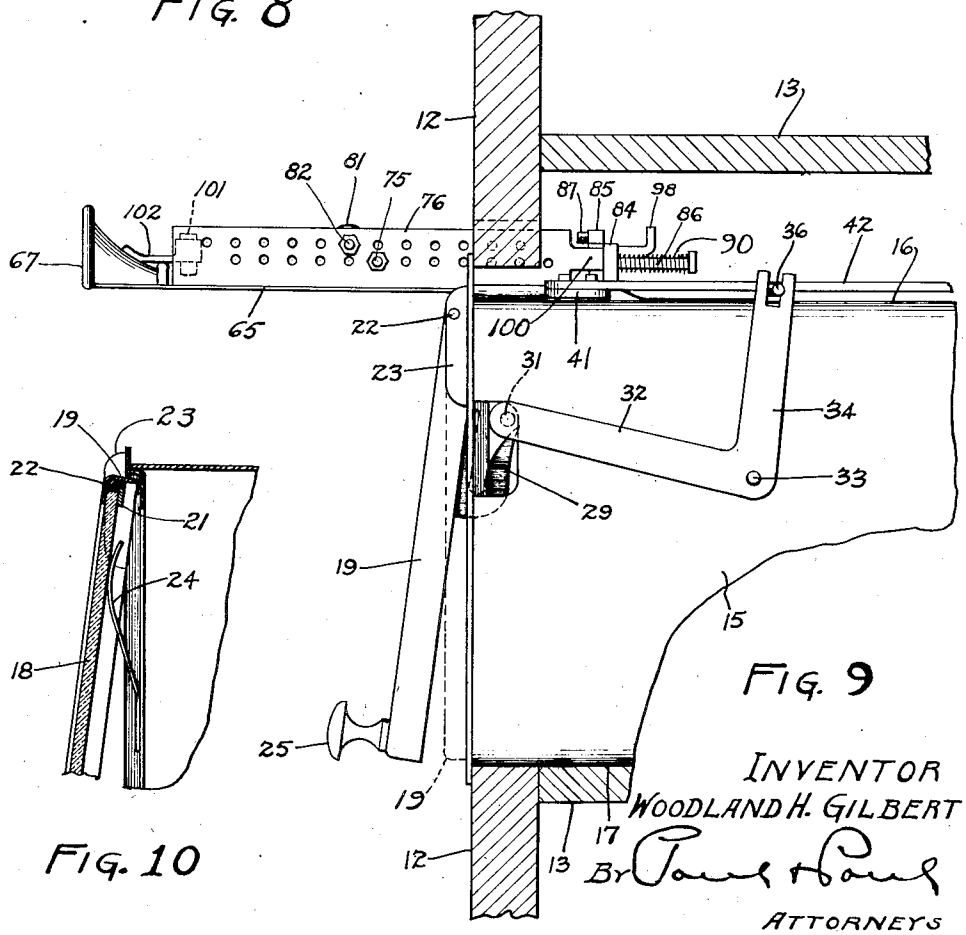



FIG. 9




FIG. 10

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Patented July 10, 1923. 1,461,613

# UNITED STATES PATENT OFFICE.

WOODLAND H. GILBERT, OF ST. PAUL, MINNESOTA.

## VENDING MACHINE.

Application filed April 25, 1922. Serial No. 556,380.

*To all whom it may concern:*

Be it known that I, WOODLAND H. GILBERT, a citizen of the United States, resident of St. Paul, county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Vending Machines, of which the following is a specification.

This invention relates to new and useful improvements in vending machines more particularly of the type which normally maintain a commodity within a locked container and are adapted to be unlocked by a purchaser without the necessary intervention or attendance of the seller. The present commercial type of such machines is usually unlocked to permit removal of the commodity or operated to deliver it, by means of a coin, disk, or other token which usually is received within and retained by the vending machine. Such machines are useful when operating as isolated units, or in batteries or series when an attendant is constantly and conveniently at hand to make change or sell the necessary token. An obvious disadvantage of the present coin-operated machines resides in the fact that purchasers running out of coins of the exact denomination needed frequently do not take the trouble to acquire an additional supply. Such disadvantage is aggravated when it is attempted to have the machines actuable by two or more coins of different denominations in order to charge a fair price for the vendible commodity. Furthermore, in the case of tokens there is the danger of unauthorized duplication and consequent operation of the machines at a loss.

In this novel invention, the vending machine is adapted to be operated by means of an instrumentality upon which the charge for the contained commodity is marked when the machine is unlocked or opened to permit removal or delivery of the commodity. Such type of machine is particularly adapted for use in a series or battery where it is desired simultaneously to offer for sale a plurality of different commodities at the same place such for example as in stores, cafes, restaurants, etc. A simple method of employing these machines is to provide each customer entering the selling place with an instrumentality or key member adapted to unlock all of the normally locked filled containers of the vending machines. Preferably, each container visibly shows its contents and bears a price notation. The customer may insert his key member within a suitable key way whereby the container is not only unlocked to permit removal of the commodity but also the key member is marked with the price of or charge for the removable commodity. Thereafter, the purchaser may insert the same key member in other machines and likewise remove the contents with the attendant marking of the additional charge upon his key member. The marking mechanisms of the vending machines are so arranged that the different machines mark the key member in different places. Furthermore, this novel vending machine is provided with means to indicate a repeated operation of the same vending machine by the same key member whether done in good faith or with fraudulent intent.

The object therefore of this invention is to provide an improved vending machine.

A more specific object is to provide a vending machine adapted to be actuated by a device or instrumentality and to mark the charge for the removable commodity upon such actuating instrumentality.

Other objects of the invention will more fully appear from the following description and the accompanying drawings and will be pointed out in the annexed claims.

In the accompanying drawings, there has been disclosed a structure designed to carry out the objects of the invention, but it is to be understood that the invention is not confined to the exact features shown, as various changes may be made within the scope of the claims which follow.

In the drawings:

Figure 1 is a view in front elevation of a plurality of the novel vending machines disposed in a series or battery;

Figure 2 is a similar view but in rear elevation;

Figure 3 is a view in plan of one of the machines showing the closure in locked closed position and with a key member inserted and ready upon rearward movement to unlock the closure and to be automatically marked with a charge;

Figure 4 is a view similar to that of Figure 3 but showing the parts as subsequently moved to unlocked and marked position;

Figure 5 is a partial vertical sectional view on the line 5—5 of Figure 3 to show the

means for marking a repeated operation of the same machine by the same key instrumentality;

Figure 6 is a partial vertical sectional view on the line 6—6 of Figure 4 to show the mechanism of Figure 5 in the position subsequently assumed in accordance with the disposition of the other machine parts shown in Figure 4;

Figure 7 is a vertical sectional view on the line 7—7 of Figure 4, looking toward the front of the machine, to illustrate the rear of a portion of the mechanism shown in the position assumed in Figure 6;

Figure 8 is a vertical sectional view on the line 8—8 of Figure 3 and showing the key way and associated mechanism;

Figure 9 is a fragmentary view in side elevation of a machine with its frame in vertical section to show the key way tray withdrawn to permit inking or type changing or adjustment;

Figure 10 is a fragmentary vertical sectional view to show the tensioned mounting of the closure or door; and

Figure 11 is a fragmentary view in plan of a key card having the repeated imprint.

In this embodiment of the invention which is selected for purposes of explanation, the novel vending machine is illustrated as employed in a battery or series. The machine includes a container adapted to receive the vendible commodity. As here shown the several containers are supported by means of front and rear panels 12 and its rearwardly extending shelves 13. The shelves are mounted in vertically spaced relation to support the containers. Each container is preferably formed of sheet metal shaped to provide the sides 14 and 15 and the top 16 and bottom 17. As shown in Figure 1, the front of the container is provided with a suitable closure which may be retained in locked container-closing position to prevent unauthorized access to the contained commodity. Such closure is preferably a door comprising a frame enclosing a pane 18 of glass to afford ready inspection of the container contents by the prospective purchaser. The frame in the form shown in Figure 10, consists of an L-shaped strip 19. The marginal portions of the pane 18 are held against the inner face of the strip flange by means of a relatively narrow bar 21 suitably secured, as by solder, to the strip 19. The upper transverse edge of the pane terminates short of the strip so as to accommodate a rod 22 which extends across the door frame and is pivotally borne at its opposite ends in bearing brackets 23 secured to the front edge portion of the container. This hinged support for the container door is thus provided at its upper edge so that the door will tend to remain closed by gravitational force. However, means are provided to maintain the door in the slightly opened position shown in Figures 9 and 10. This is simply accomplished by a leaf spring 24 secured to the front edge portion of the container and having its upper end outwardly curved whereby the door when unlocked will assume such opened position from which it may conveniently be moved by the purchaser grasping the handle or knob 25.

Preferably a door is provided at the rear of the container so that the contained commodity such for example as food, may be covered. This rear door 26, as shown in Figure 2 may be mounted on hinges 27 and provided with a knob 28 by which it may be opened or closed by an operative. This rear door is not adapted to be opened by the purchaser. For example, the battery of units may have their front portions accessible to purchasers permitted to pass in front of the front panels while the rear portions of the containers are only accessible to operatives employed by the vending machine owner When this type of vending machine is employed where access may be had by the purchasing public to the rear thereof, then the rear door is provided with a suitable lock of any common type to which the operative retains the key. When public access to the rear of the container or containers is prevented, the rear door is simply held in closed position by means of a common form of latch carried by the rear knob 28.

Means are provided to lock the front closure in container-closing position. As here shown, there may be employed a lever system actuable from the rear of the container. Preferably this locking means is such that it may be unlocked by a suitable instrumentality at the front of the machine and may be re-set or locked at the rear of the machine. The front door is provided with a hook-member 29 preferably formed of stiff sheet metal and rearwardly projecting from one edge portion thereof. This hook member, as shown in full and dotted lines in Figure 9, is provided with an arcuately curved cam surface which upwardly and rearwardly extends and is engageable by a pin 31 transversely extending from and carried by the forward end of the arm 32 of a bell-crank lever mounted on the pivot 33 projecting from the side 15 of the container. The other arm 34 of this bell-crank lever upwardly projects and is reciprocable within a guide 35 preferably soldered to the container side 15. The upper end of this arm 34 is terminally forked to receive a pin 36 transversely extending from the end of an arm 37 of a second bell-crank lever mounted upon the pivot 38 of the top of the container. This lever is thus mounted for horizontal oscillation. The other arm 39 of this lever is pivotally secured to one end of a link 41, the other end of which is simi-

larly connected to the operating lever 42 mounted to oscillate on the pivot 43 carried by the container top 16. The rear end of the lever 42 projects beneath a guide 44 screwed to the top and extends beyond the rear of the container to provide a handle 45 whereby this locking mechanism may be manually actuated by an operative to close the front door of the container after the commodity is placed therein. Thus, movement of the lever handle 45 from the dotted line position shown in Figure 3 to the full line position shown therein causes the pin 31 to move downwardly from its position in Figure 9 to engage the cam surface of the hook member 29 and thus to move the front door to locked closed position. Preferably, as shown in Figure 9, the lower portion of the cam surface of the hook member is substantially straight and the pivot 33 and the pin 31 are substantially in horizontal alinement when the door is thus closed so that any outward pull on the knob 25 is exerted substantially in the line of the pivot and pin and the door is maintained in locked position.

This locking means is normally adapted to remain in unlocked position while a detent means is provided to detain the locking means in its door-locking position. A tension spring 46 is mounted upon the container top with one end held by the pin 47 and its other end secured to the operating lever 42. This constantly tends to pull the lever 42 so that the locking pin 31 is under constant force tending to raise it to door-releasing position.

The detaining means for this operating lever is the mechanism which is operated by an instrumentality in the hands of the purchaser. A rod 48 is pivotally secured at one end to the pin 49 carried by the operating lever and its other end slidably projects through an aperture in the upstanding flange 51 of the bracket 52 bolted to the container top. The detent means here disclosed consists of a pair of apertured metallic slides 53 and 54, although obviously a single such slide may be employed. These slides are mounted within the substantially U-shaped housing or slideway 55 bolted to the container top. The forward ends of the two slides are formed with oppositely offset heads which may be integral or may be provided by blocks 56 and 57 welded thereto. These slides are under tension constantly tending to force each to its forward position against a limiting stop on the container top. Such tension is similarly provided for each slide by means of pins 58 and 59 secured to the heads 56 and 57, and by compression springs 61 coiled about the pins and held between the heads 56 and 57 and the apertured bearing brackets 60 and 62 secured to the slideway 55 and flange 51 respectively. Obviously, retraction of a slide places its spring 61 under increased compression tending forwardly to thrust the slide. The housing or slideway 55 is provided with alined apertures therethrough so that the rod 48 may extend therethrough. When the door is in closed locked position, as shown in Figure 3, the rod 48 extending through its guiding flange 51 projects through the aperture in the adjacent side of the slideway and abuts against the side of the adjacent slide. Each slide is provided with an aperture therethrough in order that, when the two sides are rearwardly moved so that their apertures are in alinement with the apertures of the slideway, the rod 48 may be projected through the thus-alined apertures under tension of the spring 46 and the operating lever thus permitted tensionably to move to door-releasing or unlocking position. Such rod and slide position is shown in Figure 4.

The machine is thus adapted, upon rearward movement of the slide detents by a suitable instrumentality or key member manipulated by the purchaser, to open the door to permit removal of the commodity within the given container.

Such key member is here shown as in the form of a piece of flat sheet material for which a relatively stiff paper is suitable such as the card 64. This key card is adapted to be inserted by the purchaser within a key way formed in the machine and, upon rearward movement, to release the locking mechanism. The key way is provided by a flat metallic base 65 slidably mounted in the opposed angled guides 66 carried by the container top. This base is preferably slidable in order that it may be forwardly moved as a unit in order to permit convenient access to the mechanism carried thereon for purposes of alteration, adjustment, inking, etc. A mouth 67 is mounted upon the forward portion of the base and projects through the front panel 12. This mouth is formed preferably of sheet metal to provide a flaring upper face rearwardly leading to a relatively narrow elongated aperture of sufficient height to permit a guided insertion and rearward passage of a key card. The rear edge 68 of the relatively shortened portion of the base shown on the left rear in Figure 3 provides the abutment or stop which limits the normal forward tensioned movement of both slides 53 and 54.

As shown in Figures 3 and 4, the key card is preferably formed with two cut-away portions at its left leading edge. These cut-away portions or steps 69 and 71 are adapted rearwardly to push the two slides different distances. When a single slide is employed, obviously the step structure may be omitted and the leading edge of the card may be straight and adapted to

push such single slide rearwardly until its aperture is alined with the slideway apertures to permit passage of the rod 48. Herein, however, two slides are shown and their apertures are, as indicated in Figure 4, offset, that is are at different distances from their respective blocks 56 and 57. Hence, to attain alinement of apertures the slides must be rearwardly pushed different distances. Such is the object of the stepped edge of the key card as is operatively shown in Figure 4. While two such detent slides are shown it is obvious that more may be employed with consequent change in the key card. Furthermore, the apertures in the slides may be differenty spaced so that the key card must be differently stepped in order to effect unlocking. The card is guided in its rearward working travel by the two angled strips 72 secured to the base 65.

Means are provided to mark the unlocking instrumentality such as the key card 64 with a charge indicat on of the commodity which is thus removably delivered. A convenient form of marking means is type adapted to imprint a numeral or numerals upon the key card. In the type device here shown, the type 73 is peripherally mounted upon a collar 74 loose upon a shaft 75 mounted in bearings provided by alined holes in the opposed bearing plates 76 upwardly projecting from and carried by the base 65. One end of the collar 74 has fast thereon a pinion 77 which is constantly in mesh with the teeth 78 of a rack bar 79 slidably mounted upon the base 65 between the adjacent card guiding strip 72 and bearing plate 76. This rack bar has a rear portion which is offset in the path of a card so that as the card is rearwardly moved the rack bar is similarly moved and the type-bearing collar 74 is rotated. Rotation of the collar 74 causes the peripherally borne type 73 to print the card 64 as it is rearwardly moved to unlocking position. It should be noted that the radius of the pinion 77 should be in proportion to the radial distance of the type from its shaft so that the type 73 will be actuated at the same linear rate of speed as the rearwardly moving card. A convenient means of inking the type consists in the provision of a feed roll 81 mounted upon the shaft 82 loosely borne in the upper set of holes shown in the bearing plates 76. Preferably a leaf spring 83 is mounted upon the base 65 and presents a convex tension surface to a card so that the card may be held against the type during the printing movement.

When these vending machines are used in a series, they usually contain different commodities of which a purchaser may desire one or more. Hence, the marking means must be so arranged that each machine will mark the same card in a different place. Such is the purpose of the plurality of holes shown in the two bearing plates 76. For example, when the type-bearing shaft 75 is moved from the position shown in Figure 3 and installed within bearing holes to the rear of those shown in such figure, an inserted card will obviously be printed closer to its leading edge than is the case when the shaft is in the position shown in Figure 3. Likewise, the type 73 may be moved longitudinally of the collar 74 so that the card may be thereby printed in a different vertical space. A suggestion of such printing spaces is shown in Figures 3 and 4 by the lines defining rectangular spaces upon the upper surface of the key card 64.

It is desirable in order to prevent a purchaser from inserting a card twice in the same container with the fradulent intent that the marking mechanism will simply cause the second marking to be accurately superposed upon the first and hence but a single marking to appear. Therefore, means are provided to indicate such a repetition upon the same card. This is conveniently accomplished by successively changing the actuation of the printing shaft in timed relation to movement of the card. The offset portion of the rack bar, heretofore referred to, consists of a block 84 secured thereto and projecting within the key way or path of a key card. A rotor 85 is mounted upon a stud 86 carried by the block 84. The face of this rotor which is presented in the path of the inserted key card is provided with a plurality of stops 87, in the form of studs, each projecting a different distance from the rotor face. For example, the card 64 is shown in Figure 8 as in engagement with the longest stop 87. Obviously the rack bar will immediately be rearwardly moved by the card. However, if the smaller stop 87, shown at the top of the rotor in Figure 8 were in lowermost position, it is obvious that the card would have to travel the distance between the ends of these two stops before the rack bar is rearwardly pushed. The result of this slight relative movement between the type and card is that the second printing is slightly offset from the prior printing upon the same card. Of course if only a single imprint is made on any given card, this relative movement is immaterial. Four such stops 87 are preferably provided upon the rotor in order to give three repeated markings upon the same card, in other words, the same card may be marked four times and show each repetition. It is preferable also to provide the type numeral with an additional tell-tale such as a dash 88. A repeated marking is shown in the fragmentary view of a marked card in Figure 11.

Means are provided automatically to present successively the different stops 87 to a

card. This means is automatically operable upon re-locking of the door. The periphery of the rotor 85 is provided with ratchet teeth 89 adapted to be engaged by a device which is connected to the operating lever 42 so that the rotor is turned a quadrant upon each re-setting of the lever to lock the door. A rod 91 is provided with a downwardly offset end which is pivotally mounted in an aperture in the operating lever, the other end portion of this rod is slidably borne by an aperture in the guide 92 upstanding from the container top. A pin 93 forwardly extends in a horizontal plane from the rod 91 and bears an end of the pawl 94 normally downwardly held by the wire spring 95 secured to the rod and pawl. When the operating lever is permitted to move to opening position as shown in Figure 4, the pawl 94 idly moves over the rounded surfaces of the ratchet teeth 89 in position to engage a tooth and turn the rotor a quadrant upon manual re-setting of the operating lever.

The rack bar and its rotor are normally held in forward position by the compression spring 96 coiled about the rear portion of the rack bar between a bearing block 97 fixed to the container top through which the bar slides and the rotor block 84. Hence, means are provided to prevent tensioned return of the rotor block and rack bar to normal forward position upon withdrawal of the key card in order that the rotor may be changed by the pawl upon re-setting of the operating lever. To this end, a wire 98 having an upwardly offset end portion rearwardly projects from the rotor block. As is shown in Figure 4, when the key card has rearwardly moved the block 84 and rack bar, the wire 98 passes behind the path of the rod 91. Thus, when the slides are moved to proper alinement and the rod 48 is thrust therethrough, the operating lever 42 moves to project the rod 91 in front of the offset end of the wire 98 whereby the rotor and rack bar are thereafter held in a fixed position. Resetting movement of the operating lever 42 causes retraction of the rod 91 both to cause the pawl 94 to turn the rotor to present a different stop and thereafter to release the wire 98 to permit the changed rotor to move to forward position.

The rotor 85 is normally held against the rear face of the block 84 by means of a tension spring. This spring is coiled about the headed stud 86 and has one end bearing against the block and the other end against the head of the stud. This spring is preferably of such strength as to afford a frictional resistance to rotation of the rotor. Thus, the rotor may be turned by the pawl 94 in its working travel, but this frictional resistance to rotation is sufficient to prevent turning of the rotor by the pawl during unlocking travel to the position shown in Figure 6. A stop for the tensioned forward movement of the rack bar is provided by the extension 100 of the adjacent bearing plate 76. Preferably also a stop is provided for limiting rearward movement of the key card. Such stop consists of a block 70 secured to the upper face of the container. This stop 70 is shown in card-limiting position in Figure 4. The advantage of the employment of such a stop resides in the fact that the card may thus push the slides to the desired aperture-alining position and hence prevent the slides from over-running such alined position.

The base 65 and associated parts substantially constitutes a tray which, as heretofore stated, may be pulled out the front of the machine for alteration, etc. A latch is provided to retain the base 65 in normal operative position. An angled leaf spring 99 (see Figure 8) is riveted to the under face of the container top and has its angled portion adapted to be normally seated within holes cut in the top 16 and the base 65.

Preferably, means are provided to prevent the insertion of a key card having a false cover or sheet of paper laid thereon to prevent marking of the card upon unlocking of the container. Such means is provided by a bar 101 of relatively soft material having a high coefficient of friction with paper, such as rubber. This bar 101 is held (see Figure 8) by means of a clamp bracket 102 secured to the mouth 67 so as to be positioned to contact with the surface of an inserted key card.

I claim as my invention:

1. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by an instrumentality to permit removal of the commodity, and means adapted upon unlocking of the closure to mark said unlocking instrumentality with the charge for the removable commodity.

2. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by an instrumentality to permit removal of the commodity, means adapted upon unlocking of the closure to mark said unlocking instrumentality with the charge for the removable commodity, and means adapted, upon a repeated unlocking of the container by the same instrumentality, to indicate such repetition upon said same instrumentality.

3. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key of sheet material to permit removal of the commodity, and means adapted upon

unlocking of the closure to mark said key sheet with the charge for the removable commodity.

4. A plurality of vending machines each including a container for a commodity, a closure for each container, means to lock each closure in container-closing position, all said closures being adapted to be unlocked by an instrumentality to permit removal of selected commodities, and means associated with each container and adapted upon unlocking of its closure to mark the instrumentality with the charge for its removable commodity, each marking means being adapted to mark the instrumentality in a different place.

5. A plurality of vending machines each including a container for a commodity, a closure for each container, means to lock each closure in container-closing position, all the closures being adapted to be unlocked by a key of sheet material to permit removal of selected commodities, means associated with each container and adapted upon unlocking of its closure to mark the key sheet with the charge for its removable commodity, each marking means being adapted to mark the key sheet in a different place.

6. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by an instrumentality to permit removal of the commodity, means adapted upon unlocking of the closure to mark said unlocking means with the charge for the removable commodity, and means automatically operable upon re-locking of the closure to change said marking means whereby further unlocking of said closure by the same unlocking means will be indicated upon said same unlocking means.

7. A vending machine including a container for a commodity, a closure therefor, means movable to lock the closure in container-closing position, the locking means being normally adapted to remain in unlocked position, a rod connected to the locking means and movable therewith, and an apertured slide mounted on the machine in the path of the rod whereby the locking means may be maintained in locking position, the slide being adapted to be moved by a key member to permit the rod to pass through its aperture whereby the locking means is moved to unlocked position and the commodity may be removed.

8. A vending machine including a container for a commodity, a closure therefor, means movable to lock the closure in container-closing position, the locking means being normally adapted to remain in unlocked position, a rod connected to the locking means and movable therewith, an apertured slide mounted on the machine in the path of the rod whereby the locking means may be maintained in locking position, the slide being adapted to be moved by a key member to permit the rod to pass through its aperture whereby the locking means is moved to unlocked position and the commodity may be removed, and means automatically adapted, upon movement of the locking means to closure-locking position, to return said slide to rod-detaining position.

9. A vending machine including a container for a commodity, a closure therefor, means movable to lock the closure in container-closing position, the locking means being normally adapted to remain in unlocked position, a rod connected to the locking means and movable therewith, a plurality of slides movably mounted on the machine in the path of the rod whereby the locking means may be maintained in locked position, said slides having relatively offset apertures, the slides being adapted to be relatively moved by a key member to present the offset apertures in alinement whereby the rod may pass through the alined apertures and the locking means may move to unlocking position.

10. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, means to mark said key member with the charge for the removable commodity, said marking means being automatically operable by said key member when used to unlock said closure.

11. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, and printing means on said machine adapted upon unlocking of the closure to print upon said key member the charge for the removable commodity.

12. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member to unlock said closure to permit removal of the commodity, a marking element operably mounted adjacent the key way, and means adapted upon movement of the key member toward unlocking position to actuate said marking element whereby the key member is marked with the charge for the removable commodity.

13. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member to un-

lock said closure to permit removal of the commodity, a marking element rotatably mounted adjacent the key way, and means adapted upon movement of the key member toward unlocking position to rotate said marking element whereby the key member is marked with the charge for the removable commodity.

14. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member movable in said way to unlock said closure to permit removal of the commodity, a shaft rotatably mounted adjacent the key way, type peripherally borne by said shaft, and means adapted upon movement of the key member toward unlocking position to rotate said shaft whereby the key member is printed with the charge for the removable commodity.

15. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member movable in said way to unlock said closure to permit removal of the commodity, a marking element operably mounted adjacent the key way, a rack bar slidably mounted in the machine and having operative connection with the marking element, said rack bar having a portion disposed in the path of the key member whereby, when the key member is moved toward unlocking position, the rack bar is moved and the marking element actuated to mark the key member with the charge for the removable commodity.

16. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member to unlock said closure to permit removal of the commodity, a shaft rotatably mounted adjacent the key way, type peripherally borne by the shaft, a rack bar slidably mounted in the machine, a pinion fast on the shaft and in mesh with the rack bar, said rack bar having a portion in the path of the key member whereby, when the key member is moved in the key way toward unlocking position, the rack bar actuates the type to mark the key member with the charge for the removable commodity.

17. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member to unlock said closure to permit removal of the commodity, a marking element movably mounted adjacent the key way, and actuating means adapted upon movement of the key member to unlocking position to move said element whereby the key member is marked with the charge for the removable commodity, said actuating means being adapted to cause the marking element to move with the key member during marking travel.

18. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position, a key way in said machine adapted to receive a key member to unlock said closure to permit removal of the commodity, a shaft rotatably mounted adjacent the key way, type peripherally borne by the shaft, a rack bar slidably mounted in the machine, a pinion fast on the shaft and in mesh with the rack bar, said rack bar having a portion in the path of the key way member whereby, when the key member is moved in the key way toward unlocking position, the rack bar actuates the type to mark the key member with the charge for the removable commodity, the pinion and rack bar engagement being such that the type travel at the same linear speed whereby a clear imprint is afforded.

19. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, means adapted upon unlocking of the closure to mark the key member with the charge for the removable commodity, and means adjustably to mount the marking means whereby the position of the marked charge on the key member may be altered.

20. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key-member to permit removal of the commodity, means adapted upon unlocking of the closure to mark the key member with the charge for the removable commodity, and means adjustably to mount the marking means whereby the position of the marked charges on the key member may be altered in a plurality of directions.

21. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, a key way to receive said key member, marking means operably mounted adjacent the key way and an abutment device mounted adjacent the key way and adapted to be moved by a key member during unlocking movement, said device having operative connection with the marking means to actuate the latter in timed relation to key member movement whereby the key member is marked with the charge for the removable commodity.

22. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, a key way to receive said key member, marking means operably mounted adjacent the key way, an abutment device mounted adjacent the key way and adapted to be moved by a key member during unlocking movement, said device having operative connection with the marking means to actuate the latter in timed relation to key member movement whereby the key member is marked with the charge for the removable commodity, and means for changing said abutment device to alter the timed movements of the marking means and the key member whereby a repeated unlocking of the same container by the same key member will be marked upon the key member.

23. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, a key way to receive said key member, marking means operably mounted adjacent the key way, an abutment device mounted adjacent the key way and adapted to be moved by a key member during unlocking movement, said device having operative connection with the marking means to actuate the latter in timed relation to key member movement whereby the key member is marked with the charge for the removable commodity, and means automatically to change said abutment device to alter the timed movements of the marking means with relation to successive key-member-unlocking movements.

24. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, a key way to receive said key member, marking means operably mounted adjacent the key way, an abutment device mounted adjacent the key way and adapted to be moved by a key member during unlocking movement, said device having operative connection with the marking means to actuate the latter in timed relation to key member movement whereby the key member is marked with the charge for the removable commodity, a plurality of abutments on said device adapted singly to be engaged by a member, each abutment being adapted to effect different timed movement of marking means and member, and means singly to present different abutments to the key member whereby different member-markings are attained.

25. A vending machine including a container for a commodity, a closure therefor, means to lock the closure in container-closing position and adapted to be unlocked by a key member to permit removal of the commodity, a key way to receive said key member, marking means operably mounted adjacent the key way, an abutment device mounted adjacent the key way and adapted to be moved by a key member during unlocking movement, said device having operative connection with the marking means to actuate the latter in timed relation to key member movement whereby the key member is marked with the charge for the removable commodity, a plurality of abutments on said device adapted singly to be engaged by a member, each abutment being adapted to effect different timed movement of marking means and member, and means automatically adapted, upon re-locking of an opened closure, successively to present different abutments.

In witness whereof, I have hereunto set may hand this 21st day of April 1922.

WOODLAND H. GILBERT.