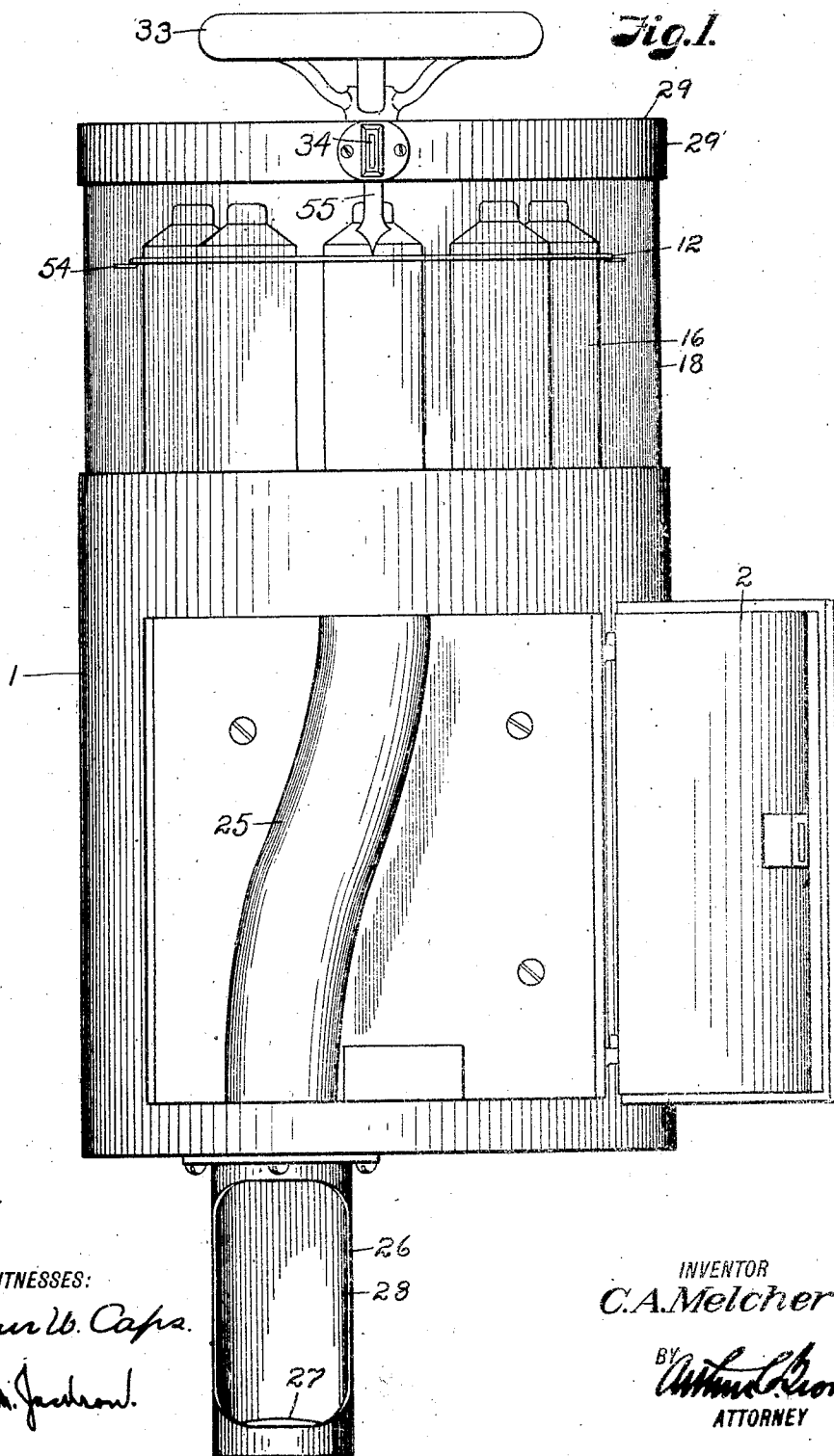


1,044,683.

C. A. MELCHERT.
VENDING MACHINE.
APPLICATION FILED NOV. 20, 1911.

Patented Nov. 19, 1912

5 SHEETS—SHEET 1.



WITNESSES:

Arthur W. Caps.

Myrtle M. Jackson.

INVENTOR

C. A. Melchert.

BY

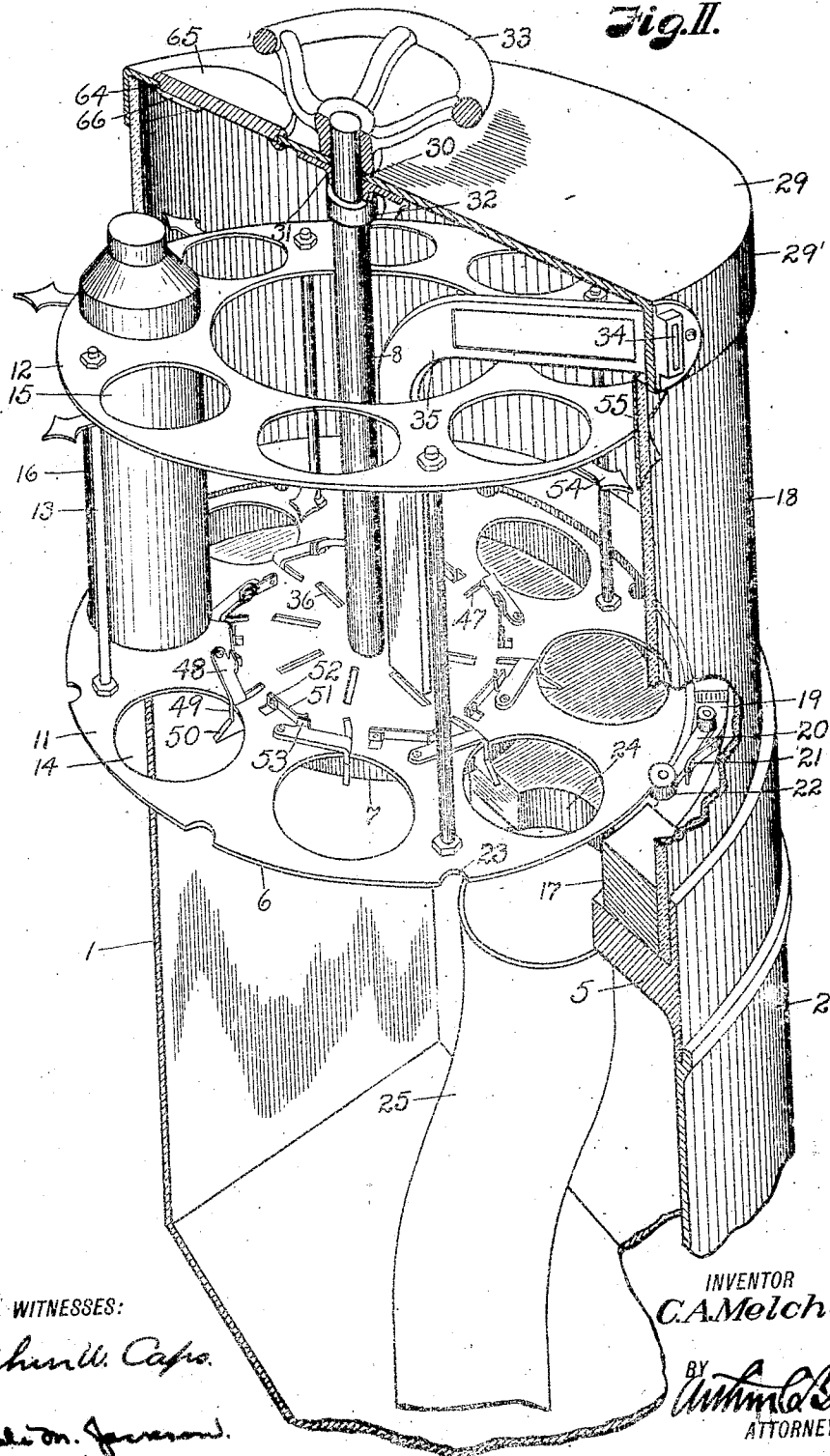
Arthur W. Caps.
ATTORNEY

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 5 SHEETS—SHEET 2.

1,044,683.

Fig. II.



WITNESSES:

Arthur W. Capro.

Angelo M. Jovanov.

INVENTOR
 C. A. Melchert.

BY *Arthur W. Capro*
 ATTORNEY

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5 SHEETS--SHEET 3.



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5 SHEETS—SHEET 4.

Fig. IV.

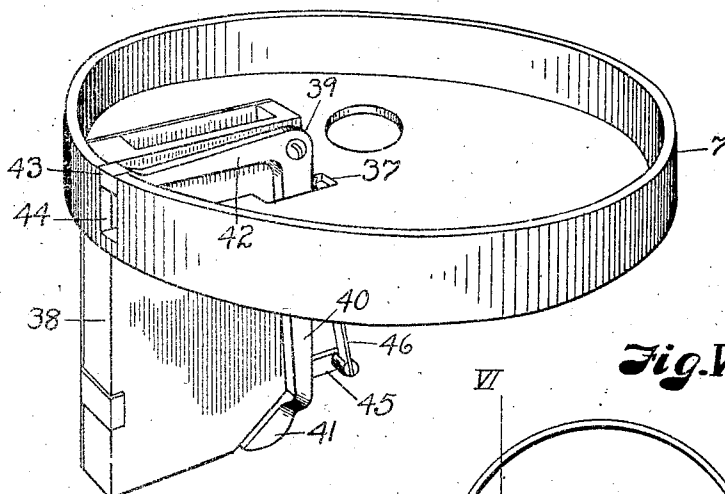


Fig. V.

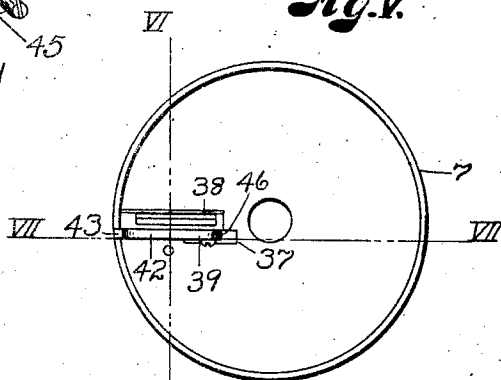


Fig. VI.

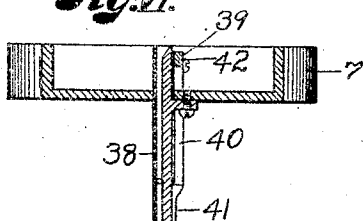
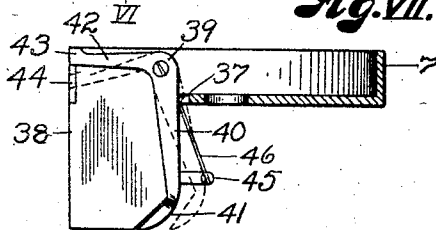


Fig. VII.



WITNESSES:

Arthur W. Cape.

Samuel D. Jackson.

INVENTOR

C. A. Melchert.

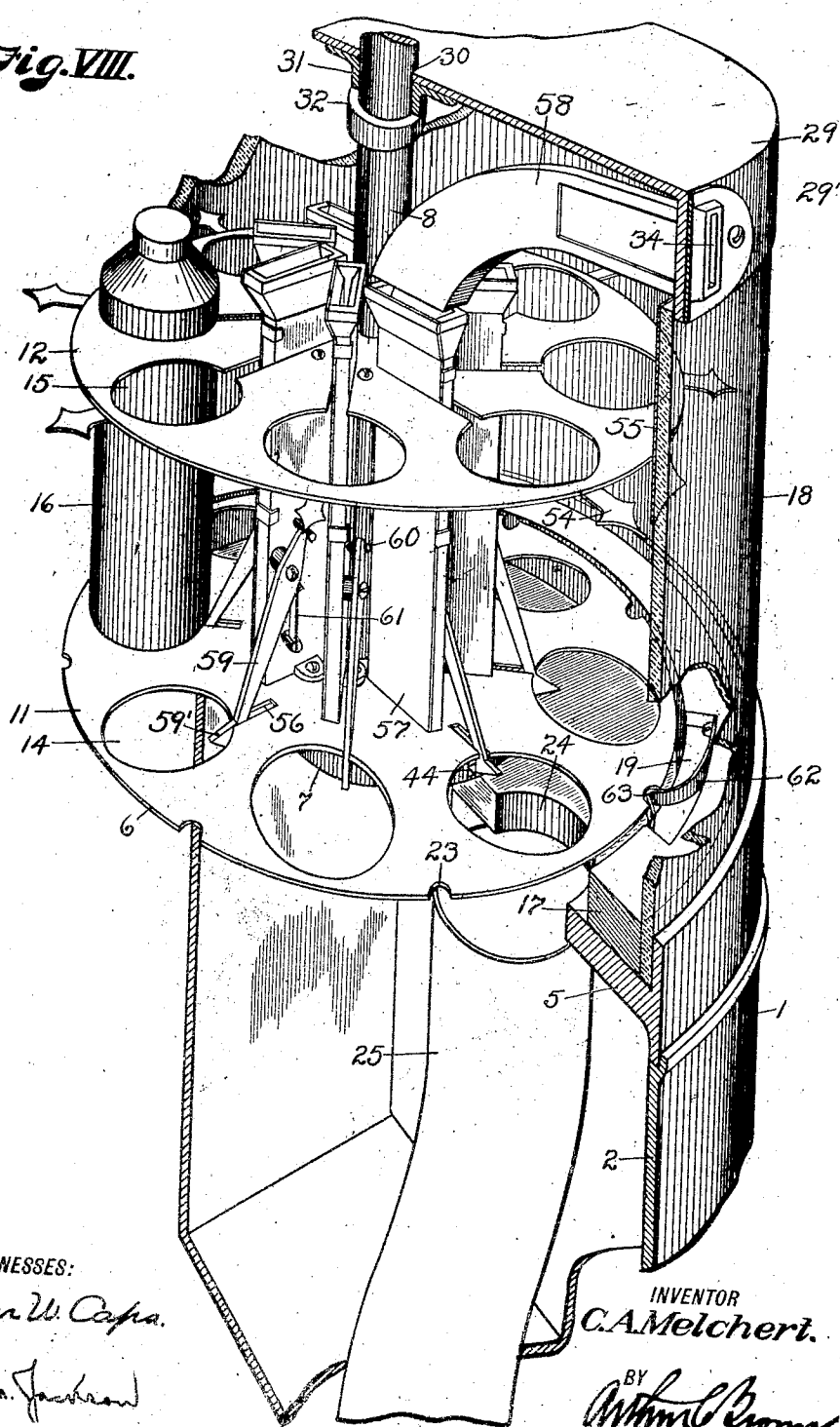
BY

Arthur L. Brown
ATTORNEY

1,044,683.

Patented Nov. 19, 1912.
 5 SHEETS-SHEET 5.

Fig. VIII.



WITNESSES:
Arthur W. Capra.
Myrtle M. Jackson

INVENTOR
C. A. Melcher.
 BY
Arthur W. Capra.
 ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES A. MELCHERT, OF KANSAS CITY, MISSOURI, ASSIGNOR TO AUTOMATIC MACHINE SALES COMPANY, OF KANSAS CITY, MISSOURI, A CORPORATION OF SOUTH DAKOTA.

VENDING-MACHINE.

1,044,683.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed November 20, 1911. Serial No. 661,224.

To all whom it may concern:

Be it known that I, CHARLES A. MELCHERT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Vending-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to automatic vending apparatus and more particularly to a coin controlled apparatus for vending toilet articles, or the like, in hotel rooms or other places where such articles might be required. In accomplishing this object, I have provided the improved details of structure hereinafter described and illustrated in the accompanying drawings, wherein:—

Figure I is a side elevation of an automatic vending apparatus constructed according to my invention, the door of the casing being open to illustrate the interior. Fig. II is an enlarged perspective view of the commodity drum showing one package in place, and the other positions empty to more clearly illustrate the parts. Fig. III is a central vertical section of the entire apparatus. Fig. IV is an enlarged perspective view of the coin controlled trip for releasing the articles and delivering same to the delivery tube. Fig. V is a plan view of same. Fig. VI is a cross section on the line VI—VI, Fig. V. Fig. VII is a cross section on the line VII—VII, Fig. V; more clearly illustrating the trip. Fig. VIII is a perspective view of a modified form of the apparatus, parts being broken away for better illustration.

Referring more in detail to the parts:—1 designates a casing which forms the base of the apparatus and is preferably squared at one side to fit into the corner of a room, the front being preferably round to economize in space and give the apparatus an attrac-

tive appearance. The case 1 is preferably of cast metal and provided with a door 2 at the front through which access is had to the body of the case, and a platform 5 which forms a cover for base 1 and a support for the commodity drum 6. Fixed to and supported on the platform 5, at the center, is a circular cup 7. Revolvably mounted in the center of platform 5 and in the base of cup 7 is a vertical spindle 8, having a block 9 fixed thereto and bearing on the bottom of the cup to revolvably support the spindle. Surrounding the shaft is a commodity frame comprising a circular base plate 11, which is supported on and fixed to block 9, and a concentric top plate 12, which latter is supported by rods 13 which are carried by the base plate and space the upper plate therefrom. The base and upper plates 11—12 have registering apertures 14—15, through which an article 16, such as a can of tooth powder or the like, may be projected and within which such article may be held by a suitable trip or trigger mechanism. The frame plates 11 and 12 are of less diameter than the platform 5, and seated on said platform outside of the base plate, preferably with its upper surface in the upper plane of said plate, is a keeper ring 17 which retains a glass drum 18 to a seat on the platform and holds same against the upper portion of the casing 1.

In the top of keeper ring 17 is a pocket 19, and pivotally mounted in said pocket is a pawl 20 which is pressed toward the frame plate 11 by a spring 21 and has a roller 22 in its free end adapted to seat in sockets 23 in the edge of said bottom plate to yieldingly hold the frame in position when any one of the apertures 14 in the base plate 11 registers with a delivery aperture 24 in the platform 5, so that when the articles to be sold are released from the commodity frame, they may drop through the frame apertures and through the platform aperture into a delivery tube 25 which extends through the case 1 and terminates in a delivery box 26 which is suspended from the bottom of the case. Box 26 is preferably provided on the bottom with a cushion 27 for breaking the

fall of the article, and has a front opening 28 through which said article may be removed by the purchaser. The delivery tube is preferably curved, as illustrated, in order to prevent a person from projecting a wire or the like through the tube to manipulate the trip and release an article without the aid of a coin. On the top of the glass drum 18 is a cap 29 having a central aperture 30 through which the spindle 8 is projected, and having a collar 31 on its under side which rests on a collar 32 on the spindle; the portion of the spindle above the keeper being provided with a hand wheel 33 by which the spindle and parts carried thereby are revolved. Opening through the flange 29' of cap 29 is the slot 34 of a coin chute 35 which projects inwardly over the top frame plate 12 and downwardly within the plate and frame to a point directly above the base plate. In the base plate 11 between each of the apertures 14 and the spindle 8 is a radially extending slot 36 which is adapted to register with the lower end of the coin chute when the frame is turned to proper position, in order that a coin, after passing through the chute 35, may drop through one of said slots. Extending through a slot 37 in the cup 7 and platform 5 is a coin chute 38, the slot in which is adapted to register with any of the slots 36 when the frame is brought into proper position therefor, and the lower end of which preferably terminates slightly below the platform. Pivotally mounted on chute 38 is a bell crank trigger 39, one arm 40 of which depends along the chute and has a downwardly inclined tooth 41 projecting into the chute channel. The opposite arm 42 of said trigger projects horizontally to the cup rim and has a head 43 located in a vertical slot 44 within the rim. On the chute 38 is an arm 45 having a spring 46 which bears against the trigger arm 40 and yieldingly retains the tooth 41 within the chute channel and the head 43 of the opposite arm in the upper portion of the rim slot 44. Extending inwardly from the rear end of each of the apertures 14 in the bottom frame plate 11 is a curved slot 47. Pivotally mounted on the plate 11, adjacent to each of the apertures 14, is a bar 48 having a downturned neck 49 projected through the slot 47 of the adjacent aperture; the rear end of said neck being adapted to bear against the rim of cup 7 and the front end being provided with a downwardly inclined tooth 50, which projects beneath the apertured portion of said plate.

51 designates springs, one end of each of which is mounted on a post 52 on the plate 11 and the free end of which bears against a dog 53 on one of the bars 48 to yieldingly tension the bar outwardly.

It is apparent that the tooth 50 will sup-

port the can or other article 16 within the aperture 14 when the rear end of the head is held by the cup rim, but that when the head is released, as when admitted to the rim slot 44, the weight of the article will move the bar backwardly against the tension of its spring so that the article may be dropped through the frame plate.

In the cap 29 is an aperture 64 having a plug 65 adapted to fit therein and on the bottom of said plug is a spring pressed latch 66 which is adapted to project under the cap to hold the plug in place. Pivotally mounted on the cap and depending through the drum is a rod 67 having a laterally turned end 68 adapted to engage the latch 66 and move same against the tension of its spring, to free said latch from the cap in order that the plug may be removed.

In using the device, presuming the parts to be assembled as described and the apparatus properly supported in the room of a hotel or other place, should a guest wish to purchase a can of tooth powder, or like article contained within the commodity frame of the apparatus, he turns the frame by means of the wheel 33 until the arrow 54, which projects from the upper frame plate 12, directly in front of the aperture containing the desired article, points to an arrow 55 on the drum 18. He then drops the proper coin into the chute 35 and the coin passing through the chute, drops through the slot 36 in the bottom plate of the frame and into the chute 38 which is suspended from the cup 7.

As the coin leaves the chute 38 it engages the inclined tooth 41 of trigger 39 and rocks said trigger against the tension of the spring 46, thereby lowering the head 43 in the cup rim so that the rear end of the neck 49 may enter said slot.

As soon as the neck is free to enter the slot the weight of the can 16 forces the neck backwardly against the tension of the spring 51, and the can is free to drop through the aperture into the delivery tube, through which it is conducted to the box 26 from which it may be removed by the purchaser.

As soon as the coin leaves its contact with the tooth 41, the spring moves the trigger back to normal position, so that when the frame is revolved the rear ends of the other trips will pass thereover without entering the cup slot, so that the articles within the commodity frame will not be released except following the insertion of a coin.

As a slightly modified form of the trip mechanism, I have illustrated a frame provided with apertures 14-15 for carrying cans or the like 16; the apertures 14 having inwardly turned slots 56 at their inner edges. The lower plate is supported on a cup 7 identical with the one in the preferred

form and the plate has slots registering with the auxiliary coin chute 38. In the modified form, however, I provide a separate chute 57 for each slot in the base plate; these chutes terminating above the top of the frame and being adapted to receive coins from a chute 58 which is carried by the drum cap 29 and terminates in a horizontal plane directly over the plane in which the upper ends of the chutes 57 are adapted to move.

Pivottally mounted on each of the chutes 57 is a trip 59 having a short upper end which is adapted to engage a post 60 on the chute and having a lower arm projecting through the slot 56 and provided with an inclined tooth 59' upon which the can or other articles 16 is supported. The lower arm of the trip is yieldingly held in forward position by a spring 61 which is carried by the coin chute and bears against the lower arm of the trip. In the modified form, I also show the keeper ring 17 provided with a spring 62 having a curved lip 63 adapted to enter the sockets 23 in the edge of the bottom plate.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent is:—

1. In an automatic vending apparatus, a commodity frame comprising spaced plates having registering apertures, a trip having a tooth projected into an aperture in the lower plate, a rim adapted for holding said trip in set position and having a slot into which said trip is adapted to retreat, and a latch having a portion projected into said rim slot, for the purpose set forth.

2. An automatic vending apparatus comprising a revoluble frame adapted for carrying a plurality of articles, a delivery tube adapted for receiving articles from said frame, a stationary rim having a slot, trips pivottally mounted on said frame and having teeth adapted for supporting articles therein, and a trigger having a head portion mounted in the slot, and a tooth portion adapted for engagement by an object falling within the machine, for the purpose set forth.

3. In an automatic vending apparatus, the combination of a frame having a base plate provided with apertures and with slots adjacent to said apertures, a trip movably mounted adjacent to each aperture and having a tooth projected therebelow, a rim having a slot therein adapted to receive said trip when the latter is moved away from the aperture, and a trigger having a head projected into said rim slot, and a tooth portion whereby the head is rocked to admit said trip into the slot, for the purpose set forth.

4. In an automatic vending apparatus, the combination with a case having an apertured platform, of a rimmed member fixed

on said platform and having a slot adjacent to the platform aperture, a frame revolubly mounted on said rimmed member and comprising a base having apertures adapted to register with the platform and having a radial slot for each aperture therein, a trip pivottally mounted on said base and yieldingly tensioned toward the aperture, a pivottally mounted trigger adapted for closing the slot in said rimmed member and for actuation to clear said slot to said trip, and means for revolving said frame.

5. In an automatic vending apparatus, a revoluble frame, comprising a base portion having a plurality of circumferentially arranged apertures, and a top portion spaced from, and carried by, said base portion, and having apertures registering with said base apertures, said base portion having curved slots opening inwardly from the apertures therein, a trip having a tooth projected into an aperture in the base portion of the frame, a rim adapted for holding said trip in set position and having a slot into which said trip is adapted to retreat, a latch having a portion projecting into said rim slot, and means extending to the exterior of the apparatus for revolving said frame.

6. In an automatic vending apparatus, a revoluble frame comprising base and top portions having a plurality for registering, circumferentially arranged apertures, the base portion having curved slots opening inwardly from the apertures, a trip having a tooth projected into one of said apertures, a rim adapted for holding said trip in set position and having a slot adapted to intermittently receive said trip, a latch member having a head projecting into said rim slot, a spindle fixed to said frame and projecting to the exterior of said apparatus, and a hand wheel on the projecting end of said spindle, for revolving said frame.

7. In an automatic vending apparatus, the combination with a case having a platform, a frame revolubly mounted on said platform and having base and top portions provided with registering, circumferentially arranged apertures, the said base portion having curved slots communicating with the said base apertures, a trip bar pivottally mounted on said base portion and having a neck disposed in said slot and a tooth normally projecting into one of the base apertures, a rim mounted on said platform and having a slot adapted to intermittently receive said trip bar, and a latch member having a head for projection into the rim slot.

8. In an automatic vending machine, the combination with a case having an apertured platform, a frame revolubly mounted on said platform and comprising spaced plates having registering apertures, the lower plate having slots communicating with the apertures, a delivery tube located below

the apertures, a trip bar pivotally mounted
on said base portion and having a neck po-
sitioned in one of said slots and a tooth ten-
sioned into one of the base plate apertures, a
5 rim secured to said platform and having a
slot adapted to intermittently receive said
trip bar and a latch member having a head
normally tensioned into the rim slot.

In testimony whereof I affix my signature
in presence of two witnesses.

CHARLES A. MELCHERT.

Witnesses:

MYRTLE M. JACKSON,
ARTHUR W. CAES.