

June 9, 1925.

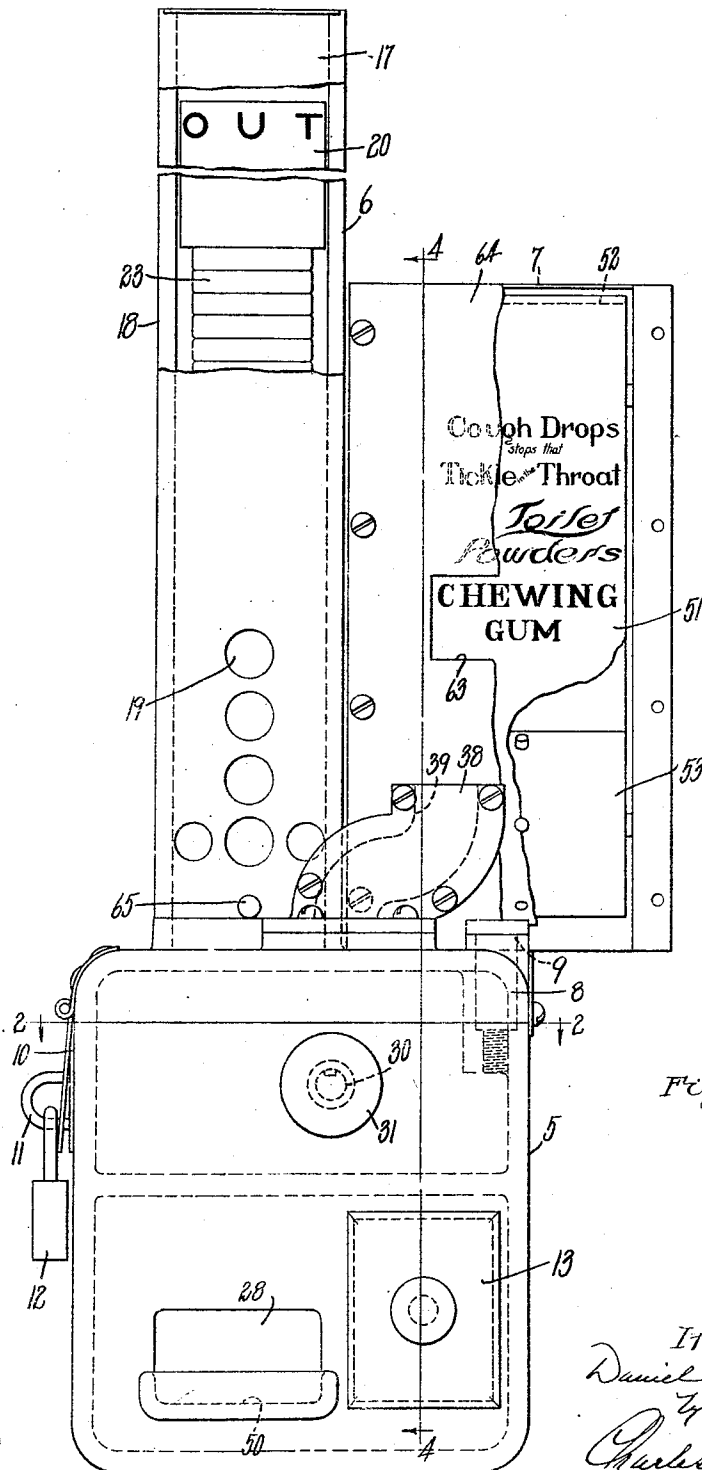
1,541,622

D. L. CHANDLER

VENDING AND ADVERTISING MACHINE

Filed Jan. 24, 1920

3 Sheets-Sheet 1



Inventor:
Daniel L. Chandler,
by his attorney
Charles L. Gooding.

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3 Sheets-Sheet 2

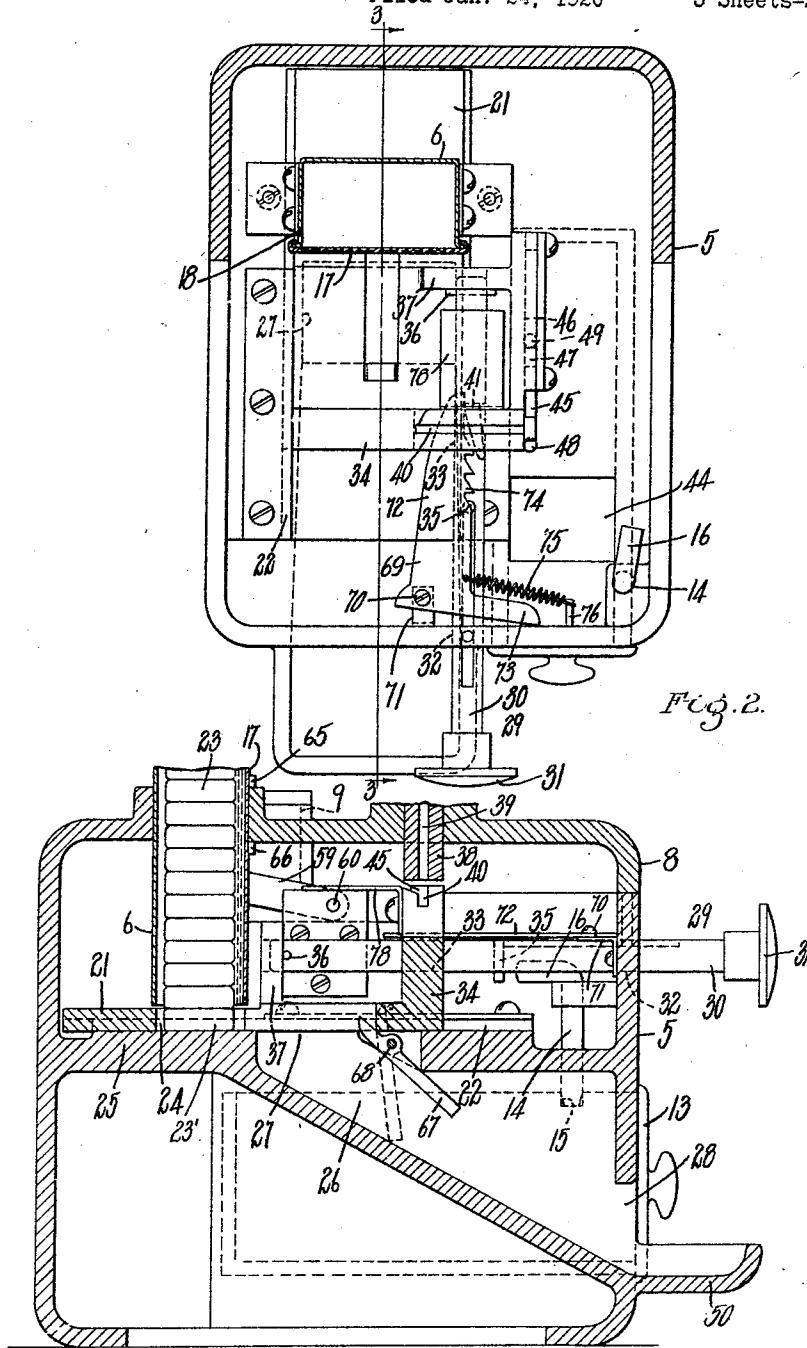


Fig. 3.

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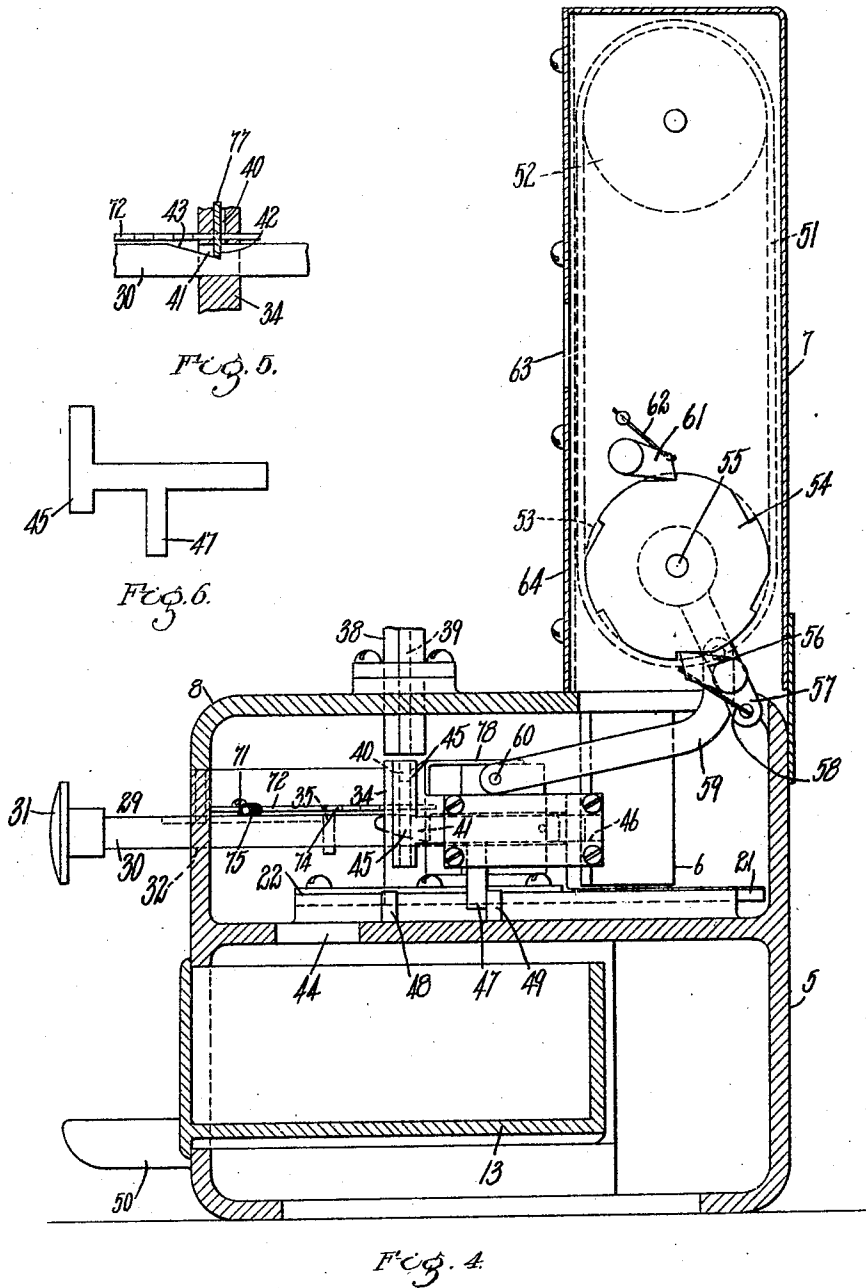
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VENDING AND ADVERTISING MACHINE

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3 Sheets-Sheet 3



Inventor:
Daniel L. Chandler,
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Charles S. Gooding.

Patented June 9, 1925.

1,541,622

UNITED STATES PATENT OFFICE.

DANIEL L. CHANDLER, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO VEND ADS CORP., A CORPORATION OF MASSACHUSETTS.

VENDING AND ADVERTISING MACHINE.

Application filed January 24, 1920. Serial No. 353,712.

To all whom it may concern:

Be it known that I, DANIEL L. CHANDLER, a citizen of the United States, residing at Fitchburg, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Vending and Advertising Machines, of which the following is a specification.

This invention relates to a machine for vending articles of the character in which manually operable mechanism is provided which is rendered operative by means of a coin inserted in the casing of a machine, and further the invention relates to a vending machine of the character set forth in which is incorporated an advertising medium which is movable by a mechanism which operates to feed articles out of the machine when the same is rendered operable by sliding a coin into the machine.

The object of the invention is to provide a simple and effective slot machine for vending articles and also the object of the invention is to provide such a machine which will operate when vending the articles to move an advertising card or cards or other mediums in front of the party operating the machine to attract his attention to the advertisements which are preferably displayed one by one to the view of the person operating the machine.

It is well known that a moving article or advertising medium attracts much more attention than one which is at all times stationary.

The invention consists in the mechanism hereinafter described and particularly set forth in the claims for vending articles, and further the invention consists in the combination of a machine for vending articles embodying mechanism whereby such articles may be obtained by means of a coin inserted in the machine to render the mechanism manually operable and in combination therewith a movable advertising medium, which advertising medium is actuated by the mechanism which operates to vend the article.

The invention further consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings:

Figure 1 is a front elevation of my vending and advertising machine.

Fig. 2 is a sectional plan taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional elevation, broken away to save space in the drawings, and taken on the line 3—3 of Fig. 2 viewed in the directions of the arrows on said line.

Fig. 4 is a vertical sectional elevation taken on line 4—4 of Fig. 1.

Fig. 5 is a sectional detail view illustrating the actuating member and a portion of the carrier slide locked together by means of a coin.

Fig. 6 is a detail side elevation of the holding slide.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is the casing of the machine, 6 is a magazine for holding the articles to be vended. 7 is that portion of the casing which encloses the advertising device. The casing 5 is provided with a cover 8 pivotally mounted to swing on said casing at 9 and provided with a hasp 10 which engages a staple 11 to which it is locked by a pad-lock 12.

A receptacle 13 for coin consists of a drawer which is slidable in the casing 5 and is locked in position in said casing by a pin 14, slidable vertically in the casing 5 and having its lower end adapted to project into a hole 15 in the coin receptacle 13. The upper end of the pin 14 is provided with an arm 16 extending laterally at right angles thereto, which, when the cover is closed, is adjacent to the under side thereof, so that said locking pin cannot be moved out of engagement with the coin receptacle until the cover 8 is moved out of alignment therewith and this cannot be done until the cover 8 is unlocked.

The front of the magazine 6 is provided with a sliding cap 17 which is slidably mounted upon the body portion 18 of the magazine and is provided with a plurality of holes 19 through which the interior of the magazine may be viewed. These holes are for the purpose of disclosing whether or not there are any articles in the machine and on the upper end of the column of articles a tell-tale block 20 is provided which has the word "out" printed thereon, as seen in Fig. 1.

A carrier slide 21 is mounted to slide in ways 22 provided in the casing 5 and said carrier slide is adapted to be reciprocally

cated forwardly and backwardly beneath the magazine 6 and the column of articles 23 contained therein. Said carrier slide is provided with an orifice 24 which extends therethrough and is large enough to admit the lowermost article 23' of said column of articles when the carrier slide is in its rearward position (see Fig. 3). A reciprocatory motion is imparted to said carrier slide to carry the lowermost article of said column of articles forward along the upper face of a horizontal partition 25 which extends across the casing and said casing is also provided with a chute 26, the inlet opening 27 of which is located adjacent to and in front of the magazine, and the outlet opening 28 of which is located in the front of the casing 5.

A detent 67 is pivoted at 68 to the casing 5 and is located within the chute 26 for a purpose hereinafter described.

A reciprocatory motion is imparted to the slide 21 by an actuating member 29 which consists of a rod 30 having a handle 31 on its front end and slidably mounted in the front of the casing at 32 and also slidably mounted at 33 in a vertical front plate 34 forming a part of the carrier slide 21.

A stop-pin 35 is fastened to the actuating member 29 and limits the forward movement of said actuating member by abutting against the inner face of the front of the casing 5. The rearward movement of said actuating member relatively to the carrier slide 21 on which it is mounted is limited by a stop pin 36 which is adapted to engage a vertical flange 37 provided upon the slide 21.

The cover 8 is provided with a coin chute 38 which has a slot 39 therein to guide the coin which is put into the machine and this slot terminates at its lower end in alignment with a vertical slot 40 provided in the wall 34 of the carrier slide 21 and extending transversely of said carrier slide and of said actuating member 29. When the carrier slide is in its rearward position as illustrated in Figs. 2 and 3, the slot 40 is in alignment with the slot 39 and a notch 41 which is provided in the actuating member 29 is then in alignment with said slot 40. The notch 41 has a shoulder 42 substantially at right angles to the median longitudinal line of said actuating member and an inclined edge 43 extending forwardly from the shoulder 42 to the upper edge of said actuating member. When the carrier slide is in its forward position, the slot 40 is in alignment with an opening 44 provided in the horizontal partition 25 and above the coin receptacle 13.

By reference to Figs. 2 and 4 it will be seen that the outer end of the coin slot in the carrier slide or the right hand end of said slot as viewed in Fig. 2 is closed and

opened alternately by means of a holding slide 45 which is slidably mounted upon the carrier slide 21 and is adapted to slide in ways 46 provided therein. This holding slide has a downwardly projecting arm 47 (Fig. 4) which moves forwardly and backwardly when the carrier slide is moved forwardly and backwardly, and is adapted to engage when the carrier slide nears the end of its forward movement a stop 48, and when said carrier slide nears the end of its rearward movement said arm is adapted to engage a stop 49 to alternately open the end of the slot 40 and allow the coin to pass out of said slot and into the coin receptacle, and to close said slot to prevent the coin from passing out of said slot when it is necessary to hold the coin in said slot to lock the carrier slide and the actuating member together.

A latch 69 is pivoted at 70 to a bracket 71 fast to the casing 5; said latch consists of two arms 72 and 73. The arm 72 has a series of teeth 74 on one edge thereof and the arm 73 is normally held in contact with the casing 5 by a spring 75, one end of which is connected to the arm 72 of the latch 69 and the other end of which is connected to a pin 76 fast to the casing 5.

The general operation of the mechanism hereinbefore specifically described, so far as the same applies to the vending of articles, is as follows: Assuming the parts to be in the relative positions illustrated in the several figures of the drawings, a coin is dropped in the coin chute 38 and passes down the slot 39 into the slot 40. At this time the actuating member 29 is in its rearward position, with the pin 36 abutting against the flange 37 with the slot 40 in alignment with the slot 39 and the detent 67 is in the position indicated in full lines in Fig. 3. As soon as the coin enters the slot 40 it will pass downwardly in said slot and project into the notch 41 in front of the shoulder 42 on the actuating member 29. The lowermost article 23' is now located in the orifice 24 in the carrier slide. The actuating member 29 is now pulled forwardly until the stop pin 35 engages the front of the casing 5. This movement will release the detent so that said detent will drop to the position illustrated in dotted lines Fig. 3 and will carry the lowermost article 23' forwardly into alignment with the opening 27 of the chute 26, whereupon said article will drop out of the orifice 24 and will pass down the chute 26 and into engagement with the detent 67.

During this forward movement of the actuating member 29 and carrier slide 21, the edge of the coin 77 will be engaged by the teeth 74 of the latch 69 so that during the forward movement of the carrier slide, it will be impossible to move it backwardly

by means of the actuating member 29 until the entire forward movement of said slide has been completed, so that it will be impossible for anyone operating the machine to push backwardly on the handle and actuate the carrier slide backwardly so as to injure or jam the article which is being vended.

Now upon reversing the movement of the actuating member 29 in readiness to obtain another article the coin will be released and will pass down and out of the slot 40 into the receptacle 13, and if there should be any hesitancy about the coin moving of its own accord it will be assisted by the inclined surface 43 of the notch 41 and be forced down the slot 40. When the carrier slide is in its rearward position the arm 47 is in engagement with the stop 49 and the forward end of the holding slide 45 at that time projects across the outer end of the coin slot 40 in the carrier slide and therefore the coin is held in the slot 40 in the carrier slide and in engagement with the shoulder 42 and projecting into the notch 41 on the actuating member 29. When the carrier slide is moved forward and just before it gets to the end of its forward movement the arm 47 engages the stop 48 and the holding slide 45 is thus prevented from moving further forward with the carrier slide and thus the outer end of the slot 40 will be opened by the forward movement of said carrier slide, while the holding slide remains stationary.

When the carrier slide is moved backwardly the holding slide 45 moves with it with the slot open, while the front end of the holding slide is out of alignment with the slot 40 until the arm 47 on the holding slide engages the stationary stop 49, whereupon a continued rearward movement of the carrier slide will cause the outer end of the slot 40 to be brought into alignment with the front end of the holding slide 45, and the mechanism is then in readiness for another coin to be dropped in and the operation hereinbefore described repeated.

During the rearward movement of the carrier slide, the detent is moved from the dotted position shown in Fig. 3 to the full line position in said figure and the article 23 being thereby released will slide down the chute 26 and out on to the shelf 50.

The advertising device consists of an endless belt 51 mounted upon rolls 52 and 53 which are journaled to rotate in the casing and are rotated by means of a ratchet 54 which is fastened to the shaft 55 of the lower roll 53. This ratchet is engaged by a pawl 56 which is pivotally mounted upon an arm 57, the arm 57 being pivotally mounted upon the shaft 55. A spring 58 holds the pawl 56 in engagement with the ratchet 54 and a rocking motion is imparted to the arm 57 by a link 59 which is connected at its rear-

ward end to said arm and at its forward end is connected to the carrier slide 21 by a pin 60.

A stop pawl 61 is held in engagement with the ratchet 54 by a spring 62 which prevents the ratchet from being rotated in a wrong direction.

Upon the surface of the belt 51 are attached a plurality of series of advertising mediums consisting of cards or other advertising devices which are brought into alignment one by one with an opening 63 provided in a plate 64 which is attached to the casing 5 and covers all of the advertising mediums or cards from view except the particular one which is in alignment with said opening 63. As the carrier slide is moved forwardly and backwardly the link 59 operates the pawl and ratchet mechanism to move the belt 51, and thus to bring one by one different cards or other advertising mediums in alignment with the opening 63, so that each time an article is vended a new card is brought into position in alignment with the opening 63 and this moving of the cards is what particularly attracts the attention of the one who is operating the machine to the article or articles or whatever it may be that is being advertised by the different cards on the endless belt.

When the last article has been vended from the machine, the lower end of the block 20 drops into the orifice in the carrier slide 21 and prevents the carrier slide from being operated by the actuating member 29 and also gives notice to any one desiring to operate the machine that it is empty by reason of the word "out" coming into alignment with some of the perforations in the magazine front plate.

It will be understood that the sliding cap 17 is locked in position by the cover 8 when said cover is closed by means of two pins 65 and 66, the pin 65 being adapted to engage the top of the cover and the pin 66 being adapted to engage the bottom of the cover when said cover is closed.

In order to close the slot 39 in the coin chute 38 when the slot 40 in the carrier slide is out of alignment therewith, a plate 78 is fastened to the vertical front plate 34 of the carrier slide 21 and projects rearwardly therefrom, so that when the carrier slide is moved forwardly from the position illustrated in Fig. 3, this plate will pass beneath the bottom end of the slot 39 and close said slot so that no coins can enter until the carrier slide is moved backwardly to its rearward position.

I claim:—

1. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles of merchandise, a carrier slide movable beneath said column of articles adapted to receive the lowermost

article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, and a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, and said actuating member being provided with a coin-supporting notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member.

2. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles of merchandise, a slide movable beneath said column of articles adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, and a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, and said actuating member being provided with a coin supporting notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member, and means to lock said coin in said slot in engagement with said notch.

3. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles of merchandise, a carrier slide movable beneath said column of articles and adapted to receive the lowermost article, in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, and said actuating member being provided with a coin supporting notch extending transversely there across adapted to be brought into and out of alignment with said slot, and means extending across said slot and adapted to hold a coin in said slot and in engagement with said notch, whereby said slide and actuating member may be locked together.

4. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles, a carrier slide movable beneath said column of articles adapted to receive the lowermost article,

in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a notch adapted to be brought into and out of alignment with said slot, holding means extending across said slot and adapted to hold a coin in said slot and in engagement with said notch, and means to move said holding means out of alignment with said slot at the end of the forward movement of said slide and to move said holding means into alignment with said slot during the backward movement of said slide.

5. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles, a carrier slide movable beneath said column of articles and adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a notch adapted to be brought into and out of alignment with said slot, holding means mounted on said slide movable relatively thereto and adapted to extend across said slot and hold said coin in said slot and in engagement with said notch whereby, upon the introduction of a coin in said slot, said slide and actuating member may be locked together, and means to move said holding means out of alignment with said slot during the forward movement of said carrier slide and into alignment with said slot during the rearward movement of said carrier slide.

6. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles, a carrier slide movable beneath said column of articles and adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a notch adapted to be brought into and out of alignment with said slot, and a holding slide mounted upon

said carrier slide and adapted to extend across said slot whereby, upon the introduction of a coin into said slot, said carrier slide and actuating member may be locked together, and means to move said holding slide out of alignment with said slot during the forward movement of said carrier slide, said means being adapted to move said holding slide in alignment with said slot during the rearward movement of said carrier slide.

7. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles of merchandise, a carrier slide movable beneath said column of articles adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a coin supporting notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member, and means to limit the distance to which said actuating member can slide in said carrier slide.

8. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles of merchandise, a carrier slide movable beneath said column of articles adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member, said casing being provided with a slot adapted to align with the slot in said carrier slide when said carrier slide is in its rearward position, and movable means on said carrier slide adapted to close the slot in said casing when the slot in said carrier slide is out of alignment therewith.

9. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles, a carrier slide movable beneath said column of articles

adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, and a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a notch adapted to be brought into and out of alignment with said slot, said notch terminating at its rear end in a shoulder and being beveled forwardly from said shoulder, whereby said actuating member will be locked by a coin located in said slot to said carrier slide when said carrier slide is being moved forward and said coin will be forced out of said slot during the rearward movement of said actuating member.

10. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles, a carrier slide movable beneath said column of articles adapted to receive the lowermost article in said column, an outlet chute provided in said casing having an inlet opening beneath the path of travel of said slide and an outlet opening extending outside said casing, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a notch adapted to be brought into and out of alignment with said slot, said notch terminating at its rear end in a shoulder and being beveled forwardly from said shoulder, whereby said actuating member will be locked by a coin located in said slot to said carrier slide when said carrier slide is being moved forward and said coin will be forced out of said slot during the rearward movement of said actuating member and means to limit the distance to which said actuating member can be moved rearwardly in said carrier slide.

11. A vending machine having, in combination, a casing, a magazine adapted to contain a column of articles of merchandise, a carrier slide movable beneath said column of articles adapted to receive the lowermost article in said column, and a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, and said actuating member being provided with a coin-supporting notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member, and means adapted

to engage said coin during the forward movement of said slide to prevent said slide from being moved rearwardly.

12. A vending machine having, in combination, a casing; a magazine adapted to contain a column of articles of merchandise, a slide movable beneath said column of articles adapted to receive the lowermost article in said column, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, and said actuating member being provided with a coin-receiving and supporting notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member, means to lock said coin in said slot in engagement with said notch, and means adapted to engage said coin during the forward movement of said slide to prevent said slide from being moved rearwardly.

13. A vending machine having, in combination, a casing, a magazine adapted to con-

tain a column of articles of merchandise, a carrier slide movable beneath said column of articles adapted to receive the lowermost article in said column, a manually operable actuating member slidable in said casing and in said slide, said slide being provided with a vertical slot extending transversely of said actuating member, said actuating member being provided with a coin-receiving and supporting notch extending transversely thereacross adapted to be brought into and out of alignment with said slot, whereby, upon the introduction of a coin into said slot, said slide may be locked to said actuating member, means to limit the distance to which said actuating member can slide in said carrier slide, and means adapted to engage said coin during the forward movement of said slide to prevent said slide from being moved rearwardly.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DANIEL L. CHANDLER.

Witnesses:

CHARLES L. GOODING,
FRANKLIN E. LOW.