

J. E. ALLISON.
EJECTING DEVICE FOR VENDING MACHINES.
APPLICATION FILED AUG. 10, 1908.

924,526.

Patented June 8, 1909.

Fig. 1.

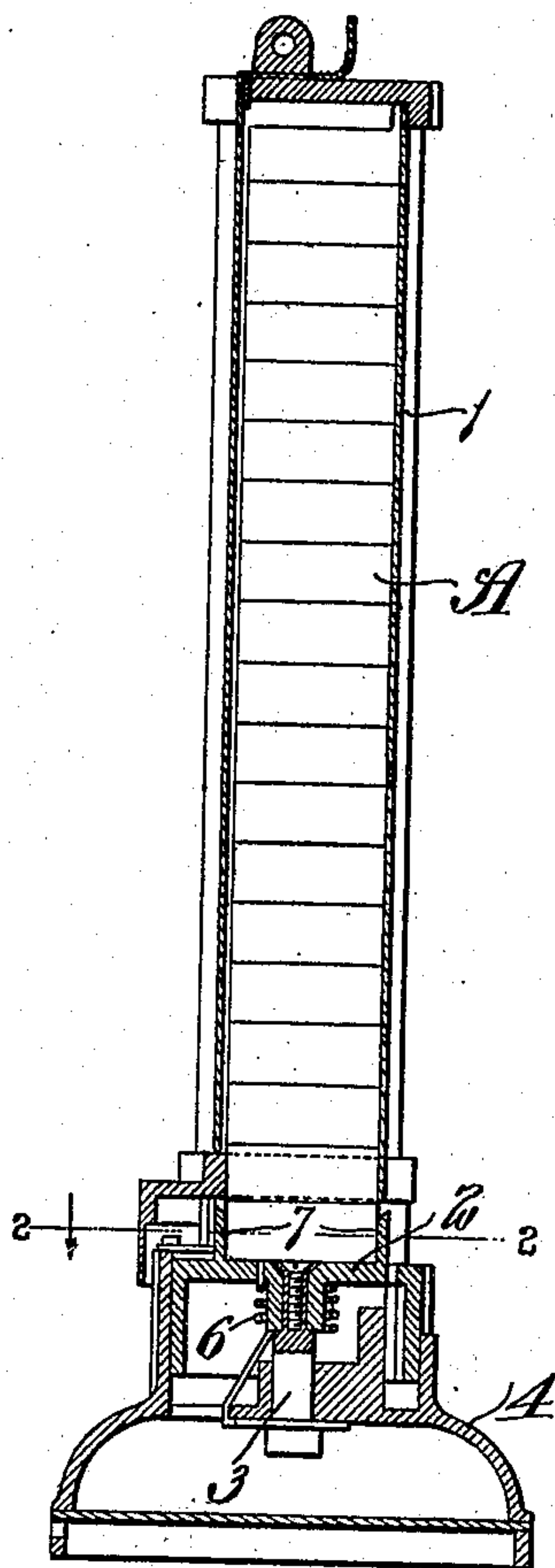


Fig. 2.

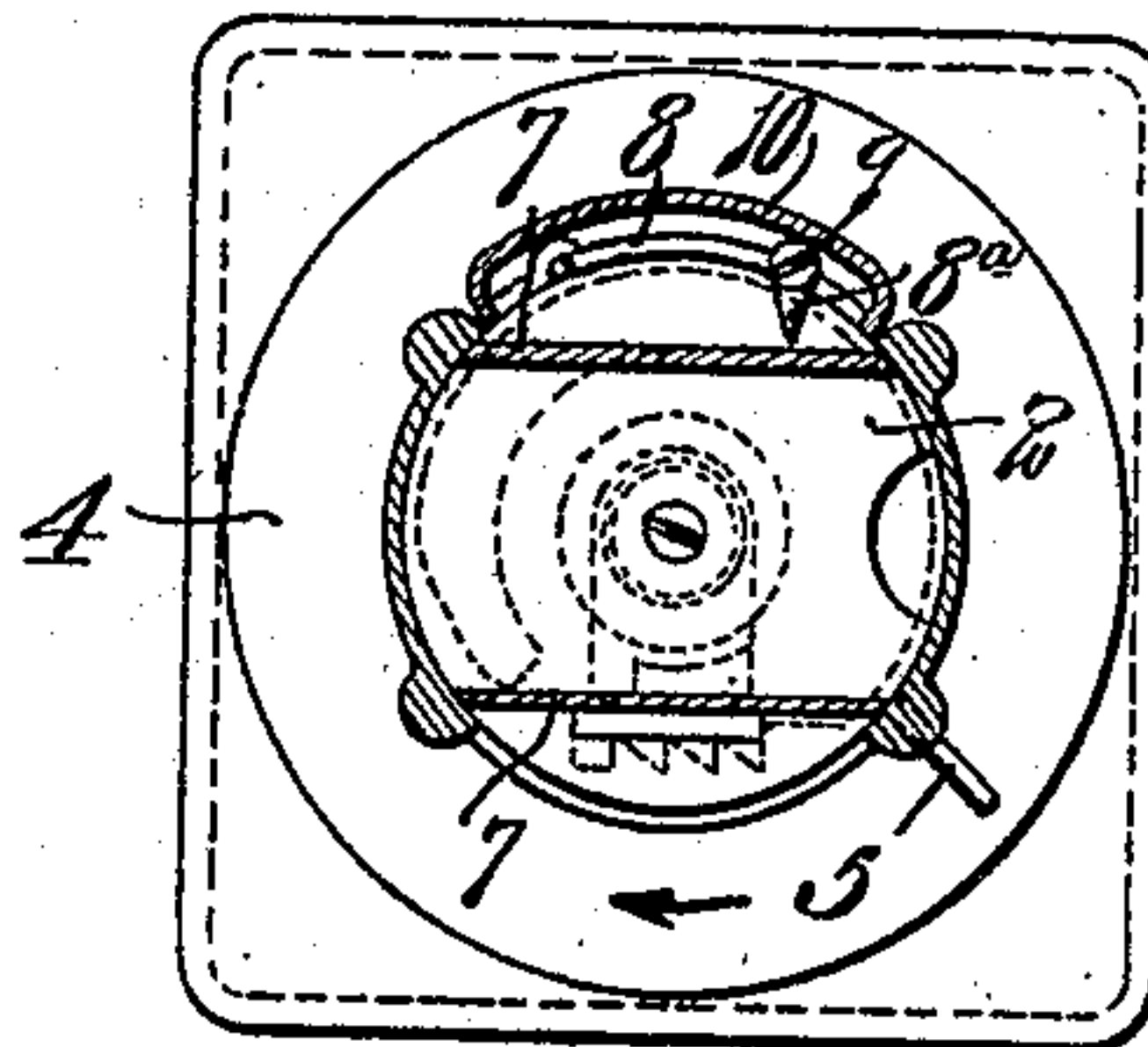
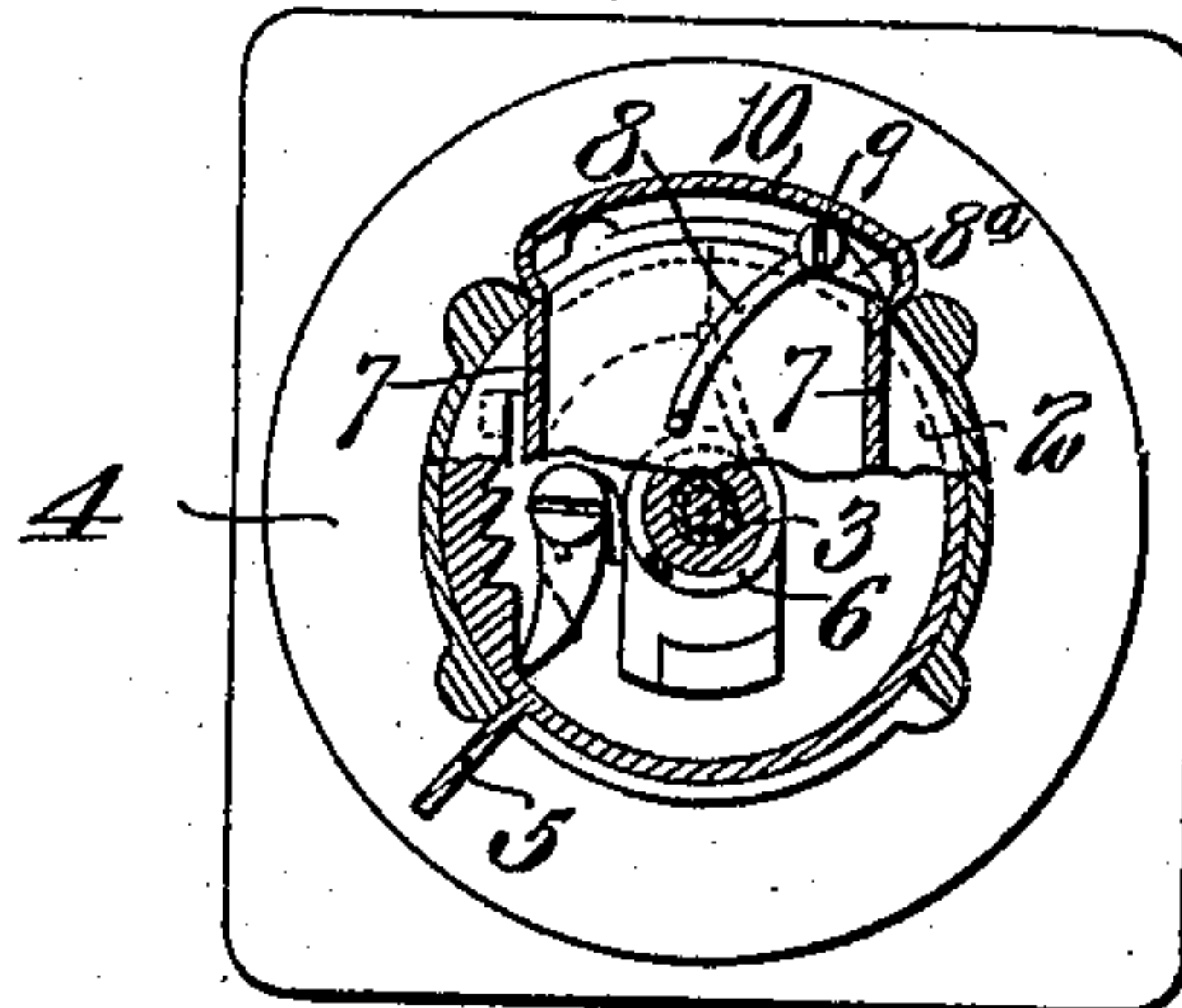


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES E. ALLISON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE LACLEDE MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

EJECTING DEVICE FOR VENDING-MACHINES.

No. 924,526.

Specification of Letters Patent.

Patented June 8, 1909.

Original application filed December 29, 1905, Serial No. 293,789. Divided and this application filed August 10, 1908. Serial No. 447,747.

To all whom it may concern:

Be it known that I, JAMES E. ALLISON, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Ejecting Devices for Vending-Machines, of which the following is a full, clear, and exact description, 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, forming part of this specification, in which—

Figure 1 is a vertical sectional view of a vending machine provided with an ejecting device constructed in accordance with my invention; Fig. 2 is a horizontal sectional view taken on the line 2—2 of Fig. 1; and Fig. 3 is a similar view showing the parts in a different position.

This invention relates to vending machines, and particularly to the means employed in such machines for ejecting the articles which are offered for sale, the present application being a divisional of my pending application Serial No. 293,789, filed December 29, 1905.

The application above referred to illustrates a coin-controlled vending machine provided with a receptacle for holding the articles to be vended, a turn-table or oscillating member arranged underneath said receptacle and adapted to support the lowermost article in the receptacle, means for preventing the turn-table from being moved until a coin has been inserted in the coin slot of the machine, and a device which automatically ejects the article resting on the turn-table when said table reaches a certain position. The present application relates to an ejecting mechanism of novel construction and while I have herein illustrated it as being embodied in a machine of the construction shown in my said pending application, I wish it to be understood that said ejecting mechanism could be used in a machine provided with a different kind of coin-controlled mechanism than that shown in my said pending application.

Briefly described, my improved ejecting mechanism consists of a movable member, preferably an oscillating or rotatable member that is adapted to support an article, an ejecting device, and means for causing said ejecting device to engage the article on said movable member and move it off of same or

partially off of same when said movable member reaches a certain position.

Referring to the drawings which illustrate a vending machine provided with an ejecting mechanism constructed in accordance with my invention, 1 designates a receptacle that holds the articles A to be vended, the articles herein shown being of approximately oblong-shape, but it will, of course, be obvious that the machine could be designed to accommodate articles of a different shape without departing from the spirit of my invention. A movable member or turn-table 2 is arranged underneath the lower end of said receptacle to support the lowermost article of the pile or stack of articles in said receptacle, and said movable member is connected to a shaft 3 that is journaled in a base piece 4. The member 2 is provided with a handle or finger-piece 5 that can be grasped to turn or oscillate said member in one direction, and said member is moved in the opposite direction back to its normal position by means of a coiled spring 6 connected at one end to the shaft 3 and at its other end to the base-piece 4.

The turn-table or movable member 2 is provided with a pair of upwardly projecting flanges 7, as shown in Fig. 2, that form a recess or pocket in which the lowermost article in the receptacle 1 lies when said turn-table is in its normal position, as shown in Fig. 2, said flanges being of approximately the same height as the thickness of one of the articles A. When said turn-table is moved in the direction indicated by the arrow in Fig. 2 these flanges 7 will be arranged transversely of the second lowermost article in the receptacle, as shown in Fig. 3, and consequently will support said article and the ones above same. That is to say, the turn-table is provided with flanges 7 which extend parallel to the long axis of the articles when the turn-table is in its normal position and transversely of said articles when the turn-table is moved out of its normal position, the distance between said flanges being less than the length of the articles A so that said flanges will act to support the articles above the article on the turn-table when said turn-table is rotated, as previously described.

The lowermost article of course moves with the turn-table when it is oscillated, and

when the turn-table arrives in the position shown in Fig. 3 said lowermost article will be ejected from the turn-table or moved partially out of the recess or pocket which the flanges 7 form.

The ejecting device herein shown consists of an arm 8 pivotally connected at 9 to a stationary part of the base piece 4 and provided with a tappet or laterally projecting extension 8^a that is adapted to be engaged by one of the flanges 7 on the turn-table. The arm or ejecting device 8 normally lies in a housing 10, as shown in Fig. 2, and the extension 8^a projects into the path of movement of one of the flanges on the turn-table. Consequently, when said turn-table is rotated in the direction of the arrow in Fig. 2 the end of the flange 7 that forms the rear wall of the pocket will engage the extension 8^a and thus move the arm 8 into the position shown in Fig. 3 so that it will engage the article in the pocket on the turn-table and eject it out of same. When the turn-table moves back to its normal position the end of the rear wall flange 7 will engage the arm 8 and move it back to its normal position in the housing 10, the lowermost article in the receptacle then dropping automatically down into the pocket on the turn-table.

While I have herein shown the ejecting device as being mounted on a stationary support and the turn-table provided with means for actuating same, I do not wish it to be understood that my broad idea is limited to such a construction for, if desired, the parts could be reversed by mounting the ejecting device on the turn-table and providing the stationary support or base-piece with stops or abutments for engaging the extension on the ejecting device so as to actuate same.

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

1. A vending machine provided with a receptacle for holding articles, a movable member arranged underneath said receptacle and adapted to always support the lowermost article therein, said member being adapted to move to arrange the article in such a position that it can be ejected from said receptacle, an ejecting device, and means for causing said ejecting device to engage the article on said movable member when it reaches a certain position and positively eject it therefrom; substantially as described.

2. A vending machine provided with a turn-table that is adapted to hold an article, an ejecting device, and means for causing said ejecting device to engage the article on said table when it is moved in one direction

and thereafter return to normal position when the turn-table moves in the opposite direction; substantially as described.

3. A vending machine provided with a turn-table that is adapted to be moved manually in one direction, a pocket on said turn-table for holding an article, an ejecting device, means for causing said ejecting device to engage the article in said pocket when said turn-table is moved in one direction, and yielding means for returning the turn-table and ejecting device to normal position; substantially as described.

4. A vending machine provided with a turn-table adapted to hold an article, a pivotally mounted ejecting device, means for causing said ejecting device to move into operative position when the table is turned in one direction and into an inoperative position when the table returns to its normal position, and a spring for returning the table to normal position; substantially as described.

5. A vending machine provided with a turn-table adapted to hold an article, a pivotally mounted ejecting device located adjacent said table and provided with an extension or tappet, and means on the turn-table for engaging said tappet to move the ejecting device into an operative position when the table is moved in one direction; substantially as described.

6. A vending machine provided with a receptacle for holding articles, a turn-table arranged below said receptacle and provided with flanges which form a pocket for the lowermost article in the receptacle, a pivotally mounted ejecting device arranged adjacent the turn-table, and a tappet on said ejecting device which is engaged by one of the flanges on the turn-table when said table is moved in a certain direction; substantially as described.

7. A vending machine provided with a turn-table having a recess for receiving an article, and a device operable by the turn-table and adapted to be moved relatively thereto for ejecting the article from said recess; substantially as described.

8. A vending machine provided with a turn-table having a recess for receiving an article, a pivotally mounted ejecting device, an extension on said device, and means on the turn-table cooperating with said extension so as to move the ejecting device into and out of operative position when the table is rotated; substantially as described.

9. A vending machine provided with an article-holding receptacle of approximately oblong shape in cross section, a horizontally disposed turn-table arranged below the lower end of said receptacle and provided with upwardly projecting flanges that nor-

5 mally aline with the widest walls of said receptacle so as to form a pocket for the lowermost article in the receptacle, said flanges being adapted to extend transversely of the second lowermost article in the receptacle so as to support same when the turn-table is moved from its normal position, and a movable ejecting device for discharging the article in the pocket of said turn-table when

said table reaches a certain position; substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this sixth day of August, 1908.

JAMES E. ALLISON.

Witnesses:

WELLS L. CHURCH.

GEORGE BAKEWELL.