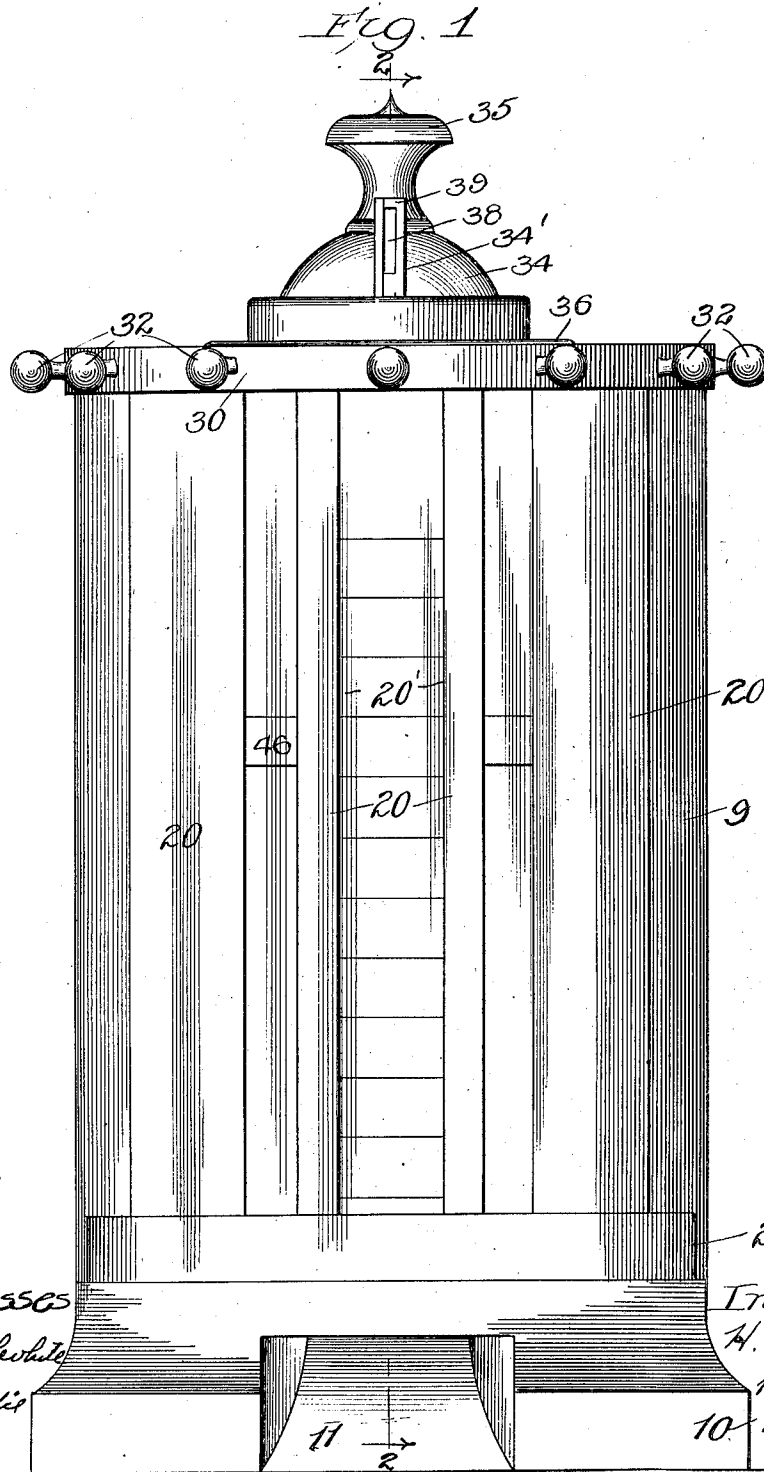


H. S. POND.
 VENDING MACHINE.
 APPLICATION FILED APR. 22, 1907.

959,598.

Patented May 31, 1910.
 4 SHEETS—SHEET 1.



Witnesses
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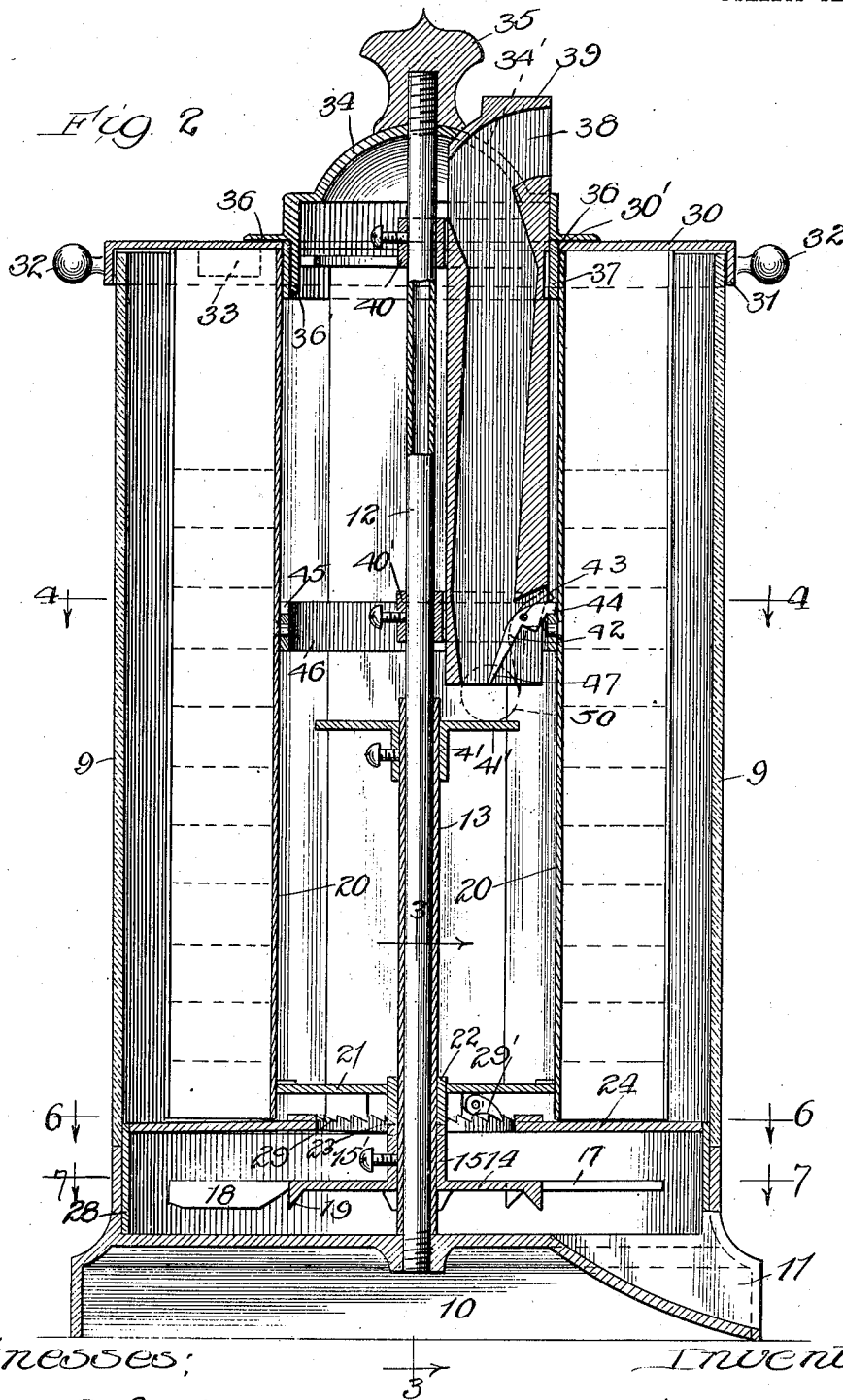
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4 SHEETS—SHEET 2.



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4 SHEETS—SHEET 3.

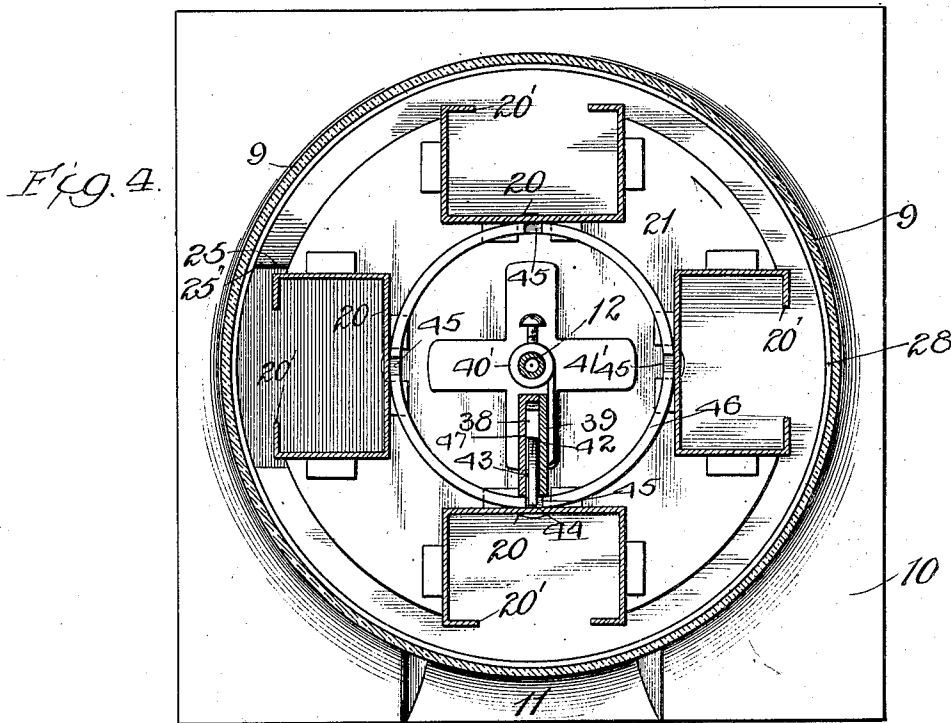
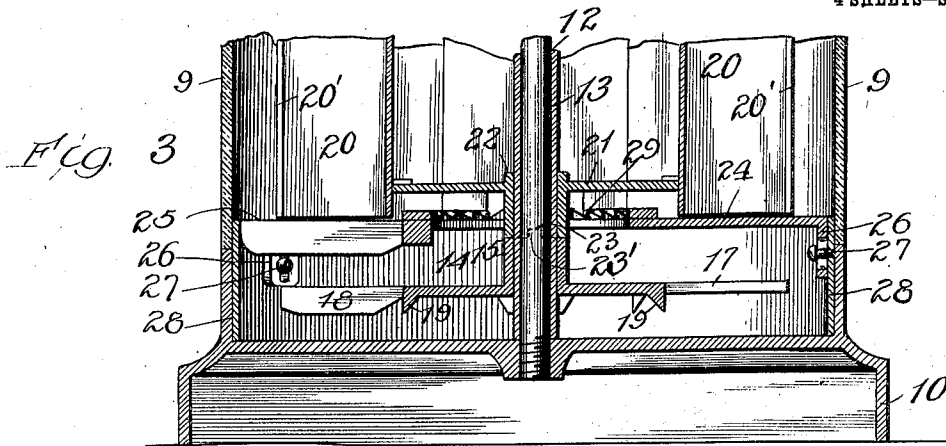
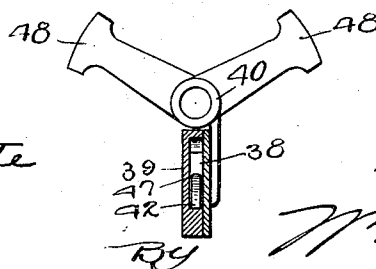


Fig. 5



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FIG. 6

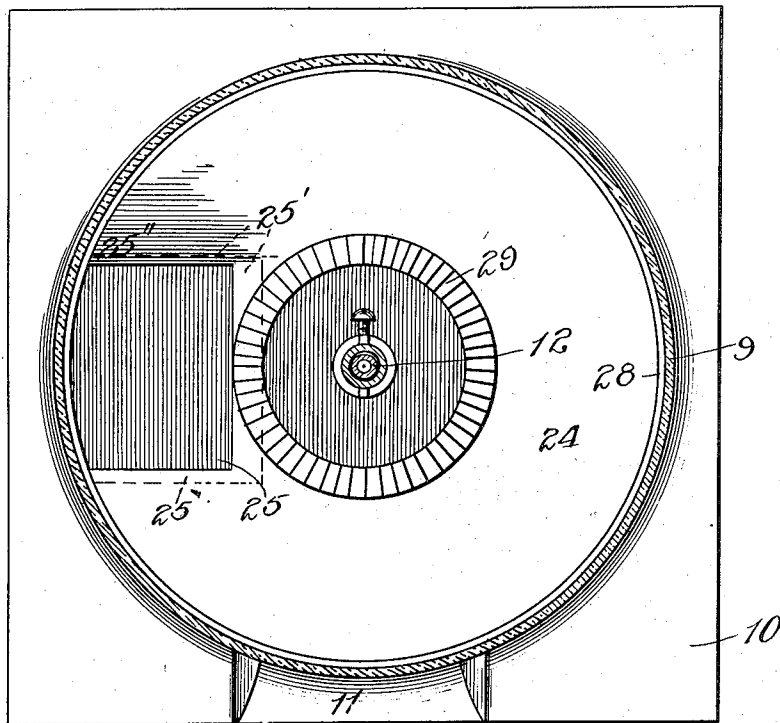
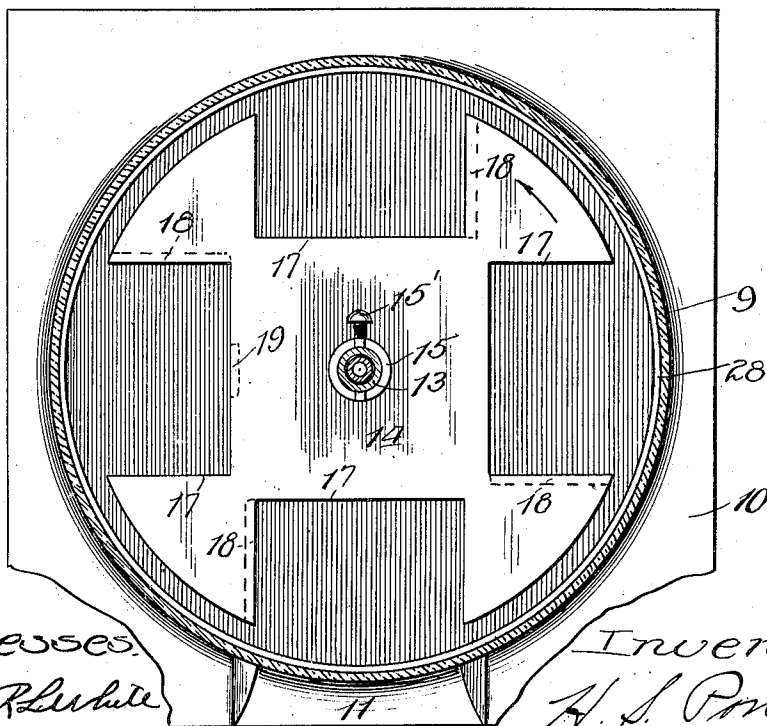


FIG. 7.



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UNITED STATES PATENT OFFICE.

HARRY SAYLES POND, OF CHICAGO, ILLINOIS.

VENDING-MACHINE.

959,598.

Specification of Letters Patent. Patented May 31, 1910.

Application filed April 22, 1907. Serial No. 369,603.

To all whom it may concern:

Be it known that I, HARRY SAYLES POND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to coin controlled vending machines and particularly to that class of machines which are generally located on counters or show-cases in stores where they are protected from the weather and also from rough usage by reason of the fact that they are to a more or less extent under the constant observation of the proprietor of the store or his clerks.

The object of the invention is to provide a machine of large capacity and comparatively few parts which can be manufactured inexpensively and is provided with devices of simple character to prevent it from being cheated.

The machine is adaptable for vending goods of different kinds but in the drawings I have illustrated it as constructed for vending matches to show one adaptation of the invention.

In the accompanying drawings Figure 1 is an elevation of the machine. Fig. 2 is a central sectional view on the line 2—2 of Fig. 1. Fig. 3 is a sectional view of the lower part of the machine taken on the line 3—3 of Fig. 2. Fig. 4 is a horizontal sectional view on the line 4—4 of Fig. 2. Fig. 5 is a horizontal sectional view of the coin chute showing particularly the guide arms. Figs. 6 and 7 are horizontal sectional views on the lines 6—6 and 7—7 of Fig. 2.

Referring to the drawings 9 designates a casing preferably made of glass in cylindrical form and mounted on a base 10 of suitable character, the base being provided with a chute 11 through which the goods are delivered. A rod 12, preferably hollow for stiffness, is screwed into the base and a tube 13 is arranged on the lower part of this rod and rests upon said base. An ejector plate 14 is provided with a sleeve 15 to fit on the tube 13 and is secured to said tube by a set screw 15'. This ejector plate (Fig. 7) has a plurality of recesses 17, one for each compartment of the magazine, and a depending flange 18 at one side edge of each recess operates as an ejector to push a box to the delivery chute. A stop 19 on the

underside of the ejector plate at the inner edge of each recess prevents the box from moving inward on the base and out of line with the chute.

A revoluble magazine for holding the goods to be vended is arranged within the casing and comprises a plurality of radially arranged compartments 20 supported upon a plate 21 which is rigid with the sleeve 22 revolvably fitted on the tube 13 and provided with recesses 23 in its lower edge to receive the projections 23' on the upper edge of the sleeve 15 (Figs. 2, 3) whereby said sleeves 22 and 15 are locked to revolve together. A stationary plate 24 constitutes the bottom for all of the compartments and it is provided with depending lugs 26 (Fig. 3) slotted to receive screws 27 which enter the cylindrical ring 28 fitting snugly within the base and projecting above the upper edge thereof to form a guide for the lower end of the casing. The bottom plate 24 has an opening 25 to permit the bottom box in a compartment to drop down on to the ejector plate 17, and depending flanges 25' on the underside of said plate at the edges of said opening prevent disarrangement of the box in its passage from the magazine to the ejector plate. One edge 25'' of the opening is slightly higher than the opposite edge for a purpose hereafter described (Fig. 2). A circular toothed rack 29 is rigidly fixed on said bottom plate and is engaged by a gravity pawl 29' (Fig. 2) which prevents the magazine from turning backward as will be described hereafter. Each compartment is preferably made of a shape in transverse section to accommodate the goods to be vended and it has an opening 20' at the front (Fig. 4) to display the goods. A cover plate 30, having a central opening 30' is loosely arranged on the upper end of the casing and has a peripheral flange 31 on which are mounted a plurality of handles 32. A projection 33 is located on the underside of the cover plate 30 to engage one of the compartments to move the magazine when the cover plate is moved. A cap 34 is secured on the upper end of the rod 12 by a screw knob 35 and has a flange 36 which projects over the edge of the cover plate 30 surrounding the opening 30'. Lugs 36' on the cap project downward within and against the ring 37 which is fastened to the compartments and on which the cap rests. A coin slot 38 of suitable character is pro-

vided in a frame 39 which is adjustably secured at 40, 40' on the rod 12 and projects upward through an opening 34' in the cap 34. A spider 41, having as many arms 41' as there are compartments, is rigidly secured on the tube 13 beneath the lower end of the coin slot frame. A trigger 42 is pivoted at 43 in the coin slot frame at one edge of the coin slot and one end 44 thereof is weighted to normally rest by gravity in one of the notches 45 in a ring 46 fastened to the compartments, the other end 47 of the trigger being thereby normally held projecting into the coin slot (Fig. 2). The coin slot frame has diverging arms 48 which engage the depending flange 37 of the cap 34 to make the parts fit rigidly together.

In practice the knob 35, cap 34 and cover plate 30 are removed and the magazine is filled with boxes of matches or other vendible articles and the parts replaced. The spider 41 is set so that a coin of the proper denomination deposited in the coin slot will rest upon one of the spider arms while a portion of the coin still remains in the slot. In falling to this position the coin swings the trigger to the dotted position illustrated in Fig. 2 disengaging the trigger from the notch in the ring 46 and unlocking the magazine. Then the machine can be operated and this is accomplished by turning the cover plate. In setting the machine a box will be arranged upon the base in the recess in the ejector plate immediately below the opening 25 in the bottom plate and another box will be arranged in said opening upon the first box beneath it. When the magazine is unlocked by a coin the cover plate is turned a quarter turn, and the ejector plate carries the box in its recess to the discharge chute. The ejector plate slides beneath the box in the opening in the bottom plate and supports it and the stack in the compartment until the first box has been discharged by the ejector plate into the chute, at which time the next recess in the ejector plate has come beneath the opening in the bottom plate and the box which has been supported in said opening drops into the recess of the ejector plate to be delivered at the next operation, while another box drops into the opening in the bottom plate. Thus a box from one compartment is delivered while a box from the next compartment drops from the opening in the bottom plate to a recess in the ejector plate and a box from the next compartment drops into the opening in the bottom plate. As the magazine is turned the spider arm on which the coin rests is moved from beneath the coin which falls upon the plate 21 and the trigger drops back into position to engage the next notch 45 on the ring 46, there being a notch in the ring behind each of the compartments so that the machine can only

make a quarter turn at each operation and for each coin.

The ejector plate, the magazine and the spider are all actuated in unison by the cover plate and the pawl 29' engaging the rack 29 prevents reverse movement of these parts. The edge 25'' of the bottom plate 24 is made slightly higher than the opposite edge of the opening 25, that is to say, that portion of the bottom plate 24 adjacent to the edge 25'' is pressed upward slightly to form a cam track on which the stacks of boxes in the compartments travel in approaching the opening 25 so that the bottom box in a stack will clear the top of the box supported on the ejector plate in the opening 25. This enables a stack of boxes to be carried on to the box in the opening 25 without being obstructed by the latter box.

What I claim and desire to secure by Letters Patent is:

1. A vending machine comprising a revoluble magazine consisting of a plurality of compartments to receive the goods to be vended, a plate beneath the magazine forming a bottom therefor and on which the stack of goods in each compartment rests, said plate having an opening therein through which the goods drop from the magazine when a compartment is moved to position above said opening the edges of said opening being in different horizontal planes, and ejector means beneath said plate to revolve in unison with the magazine.

2. A vending machine comprising a revoluble magazine to receive the goods to be vended, a plate beneath the magazine forming a bottom therefor and provided with an opening therein through which the goods drop from the magazine, said plate being made to form a cam track adjacent to one edge of said opening on which the goods in the magazine travel as they approach the opening, and ejector means beneath said plate.

3. A vending machine comprising a revoluble magazine consisting of a plurality of compartments to receive the goods to be vended, a stationary plate beneath the magazine forming a bottom therefor and provided with an opening therein through which the goods drop from the magazine as the compartments are moved successively into position above said opening and having a cam portion adjacent one edge of said opening, and a revoluble ejector plate beneath said bottom plate and provided with a plurality of ejectors corresponding in number to the compartments.

4. A vending machine comprising a revoluble magazine consisting of a plurality of compartments to receive the goods to be vended, a plate beneath the magazine forming a bottom therefor and provided with an

opening therein through which the goods drop from the magazine as the compartments are moved successively into position above said opening and having one side of said opening raised to provide a cam surface, and an ejector plate beneath said bottom plate to support a package of the goods in said opening in the bottom plate while another package is being delivered by said ejector plate.

5. A vending machine comprising a revoluble magazine consisting of a plurality of compartments to receive the goods to be vended, a plate beneath the magazine forming a bottom therefor and provided with an opening higher at one side than the other therein through which the goods drop from the magazine as the compartments are moved successively into position above said opening, and an ejector plate beneath said bottom plate to support a package of the goods in said opening in the bottom plate while another package is being delivered by said ejector plate, said ejector plate having recesses therein corresponding in number and location to said compartments to receive the packages of goods successively from the opening in the bottom plate and ejectors adjacent to said recesses.

6. A vending machine comprising a base, a casing mounted on the base, a revoluble magazine within the casing to receive the goods to be vended, a stationary plate beneath the magazine to support the goods therein and provided with an opening through which the goods drop from the magazine, revoluble ejector means beneath said plate, and a revoluble cover plate on the top of the casing provided with a plurality of handles located around its circumference, said cover plate, magazine and ejector means being revoluble in unison.

7. In a vending machine, the combination

of a revoluble magazine comprising a plurality of compartments to receive the packages to be vended, an ejector beneath the magazine to revolve in unison therewith, and a stationary plate between the ejector and magazine on which the stack of packages in each compartment rests, said plate having a radial opening therein through which the packages drop from the magazine when a compartment is moved to position above said opening, and the edge of said plate over which the packages travel to the opening being inclined upwardly to elevate the stack of packages so that the bottom package in the stack will clear the top of a package supported on the ejector plate in said opening.

8. In a vending machine, the combination of a stationary base, a revoluble magazine comprising a plurality of compartments radially disposed and adapted to receive the packages to be vended, an ejector plate above the base and revoluble in unison with the magazine, said ejector plate having an opening therein opposite each compartment in which a package may rest upon the base, and a stationary plate above the ejector and forming a bottom for the magazine on which the stack of packages in each compartment rests, said plate having an opening therein through which the packages drop from the magazine on to the ejector when a compartment is moved to position above said opening, the edge of said plate over which the lowest package in a compartment travels to said opening being inclined upwardly to clear a package resting on the ejector.

HARRY SAYLES POND.

Witnesses:

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M. A. KIDDIE.