

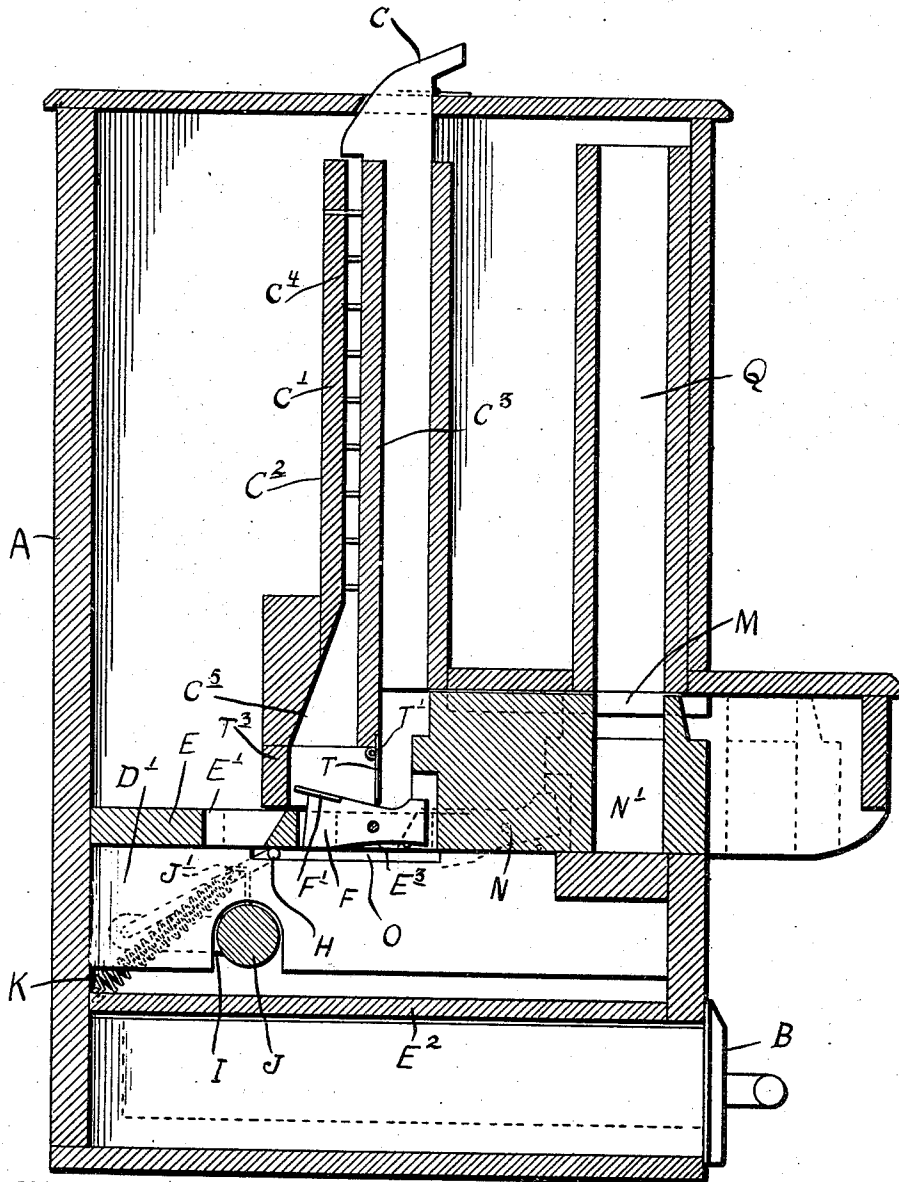
H. W. BOWMAN.
VENDING MACHINE.
APPLICATION FILED JULY 10, 1911.

1,028,096.

Patented June 4, 1912.

2 SHEETS—SHEET 1.

FIG. 1



WITNESSES:

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HENRY W. BOWMAN, OF BARBOURVILLE, KENTUCKY.

VENDING-MACHINE.

1,028,096.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed July 10, 1911. Serial No. 637,695.

To all whom it may concern:

Be it known that I, HENRY W. BOWMAN, a citizen of the United States, residing at Barbourville, in the county of Knox and State of Kentucky, have invented certain new and useful Improvements in Vending-Machines; and I do hereby 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.

This invention relates to new and useful improvements in automatic vending apparatus and comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a central vertical sectional view through the apparatus, Fig. 2 is a transverse sectional view through the apparatus, and Fig. 3 is a vertical sectional view with parts shown in elevation.

Reference now being had to the details of the drawings by letter, A designates a casing having a drawer B to receive a coin to be deposited within the apparatus. C designates a coin chute through which coins are introduced into the space C' intermediate the partitions C² and C³, the former of which has pins C⁴ projecting therefrom and in the path of the coin and affording means whereby the coins are caused to pass down one or another of the passageways shown in the drawings and make exit through one or the other of the openings C⁵. Mounted upon the strips D and D' which are spaced apart is a sliding member E having a slotted opening E' through which the coins are adapted to fall after they have accomplished their purpose in allowing the apparatus to deliver an article, and underneath each slide is an inclined chute E² which deflects the coin striking against the same, causing the latter to fall into the drawer. It will be noted that there are two of said slides E, each mounted over a slot and resting upon strips as shown. Each of said slides E has an elongated slot E³ therein and a gravity lever F is pivotally mounted in each of said

elongated slots and has a widened portion F' at one end upon which the coin is adapted to fall, the weight of the coin causing the lever to tilt so that an end thereof will be thrown downward and into the path of the crank arm H of the shaft H', which shaft is journaled in apertures in the arms I which project from the rock shaft J, the latter being journaled in the opposite walls of the casing. Each crank arm H is adapted to have a play in a recess O formed in the upper edge of a member H, said crank arm adapted to contact with the end walls of the recess to limit the rocking movement of the shaft J. A spring K is fastened at one end to a wall of the casing and its other end fastened to an eye J' projecting from the rod J² upon said rock shaft, the purpose of said spring being to return the rock and crank shafts to their normal positions. Each crank arm is adapted to contact with an end of the tilting lever F and cause the slide carrying said lever to be moved forward. Said slide E has a raised portion N with a vertical slot N' therein adapted, when in its normal position, to register with a receptacle Q adapted to contain articles to be delivered. A contracted part N² of the raised portion is movable between the guide strips M upon the under side of the partition M' and is adapted to feed forward singly the articles to be delivered. Said slot N', when at its farthest outer throw, allows the article to fall outside the casing.

A pivotal plate T is fixed to a rock shaft T' journaled in the cross-piece T³ and the lower end of said plate T is adapted to push the coin over the widened portion of the lever F as the slide E is moved forward, said coin falling through the slot E' into the box below.

Mounted upon the platform L is a sliding plate L' having plates L² fastened to the opposite edges thereof and provided with series of teeth L³ upon their outer marginal edges. Said plate has a contracted shank portion L⁴ which is guided by the strap L⁵ in the longitudinal movements of the plate. A spring R is fastened at one end to the shank L⁴ and its other end to a rod R' which bridges the recess R² formed in the rear end of the platform.

Vertically disposed standards P are journaled in openings in the transverse partition M' and the lower contracted end of each standard is journaled in the platform L. A

spring P' is fastened to the circumference of an enlarged portion of each standard and the circumference of each enlarged portion has teeth P² which mesh with the teeth upon the plates L² and serve as said plate L' is moved backward and forward to cause the standard to rock in one direction, the spring band connecting the two rollers being put under tension when the plate is moved in one direction and serving to normally return the standards to their normal positions. Each of said standards has a figure fixed thereto which, when the plate is thrown forward, are caused to swing into the positions shown in solid lines in Fig. 1 of the drawings. Fixed to each slide E is an arm E⁶ which is adapted to bear against the plate L' to move the same forward as the slide is driven forward by the rocking of the shaft J². Springs S, which are fastened at their rear ends to the cross-piece S' upon the casing and their forward ends each to said slide E, serve to return the same to their normal positions after having been moved forward by the rock shaft.

The operation of my apparatus will be readily understood and is as follows:—The parts being assembled in the manner shown and described and articles to be fed placed in the receptacle, when it is desired to deliver an article, the coin dropped into the coin chute will fall down the passageway formed intermediate the pins and come in contact with one or the other of the levers F, causing the same to tilt upon its pivot and through the end thereof in the path of one or the other of said crank arms H, adapting the apparatus to deliver the article when the shaft J is rocked sufficiently to cause the crank arm to contact with the end of the lever F and move the slide longitudinally. As the slide moves longitudinally, the plate T coming against the coin will push the same off from the widened portion of the lever F and allowing the same to drop through the opening E into the box beneath. As the slide is moved for-

ward, an article will be delivered and the raised portion N² will serve to hold the other articles from falling down until the slide is returned to its normal position. As one or the other of the arms E⁶ comes in contact with the plate L³, the latter will be moved forward against the tension of the spring R and the teeth upon the plates L² will cause the standards P to rock and cause the figures thereon to be displayed at the sight opening in the casing. When the parts return to their normal positions, the spring connecting the two standards will throw the figures upon said standards back to positions at right angles to the front face of the casing in which the sight openings are positioned.

What I claim to be new is:—

1. In a vending machine, the combination with a casing, a slide movable within the casing, means for moving the slide, a plate having serrations thereon, pinion wheels journaled within the casing and in mesh with said serrations, visual display figures actuated by said pinion wheels, and means actuated by the slide for causing the plate to move in one direction, as set forth.

2. In a vending machine, the combination with a casing, a slide movable within the casing, means for moving the slide, a plate having serrations thereon, pinion wheels journaled within the casing and engaging said serrations, visual display figures actuated by said pinion wheels, arms fixed to said plate and positioned within the paths of said slide, and designed, as the latter contacts with the arms, and a further movement imparted to the slide, to cause the plate to move and actuate the visual display figures, as set forth.

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

HENRY W. BOWMAN.

Witnesses:

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ROBERT N. CALL.