No. 814,712.

PATENTED MAR. 13, 1906.

W. E. LEIGHTON & F. A. HOLMES.

VENDING MACHINE.

APPLICATION FILED DEC. 8, 1904.

2 SHEETS—SHEET 1.

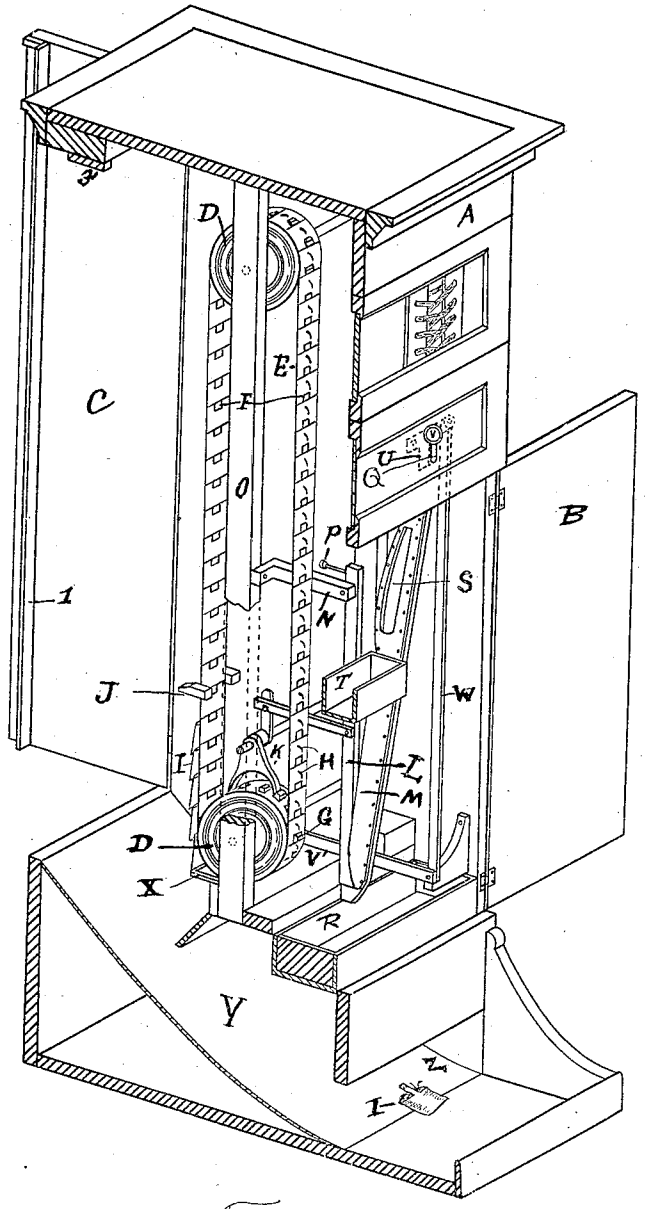


Fig. 1

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2 SHEETS—SHEET 2.

Fig. 2.

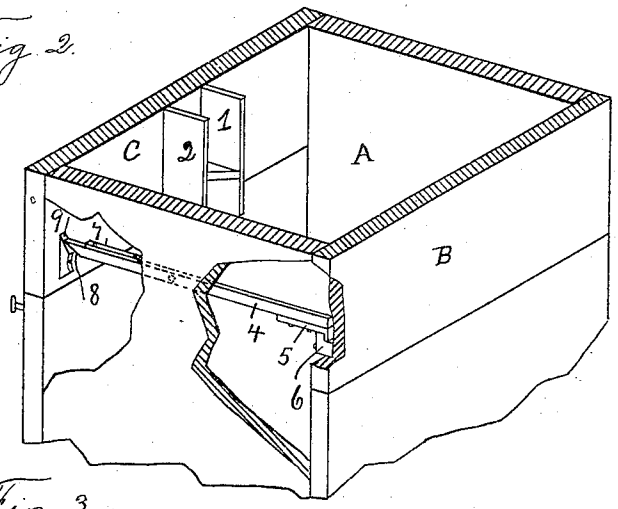


Fig. 3.

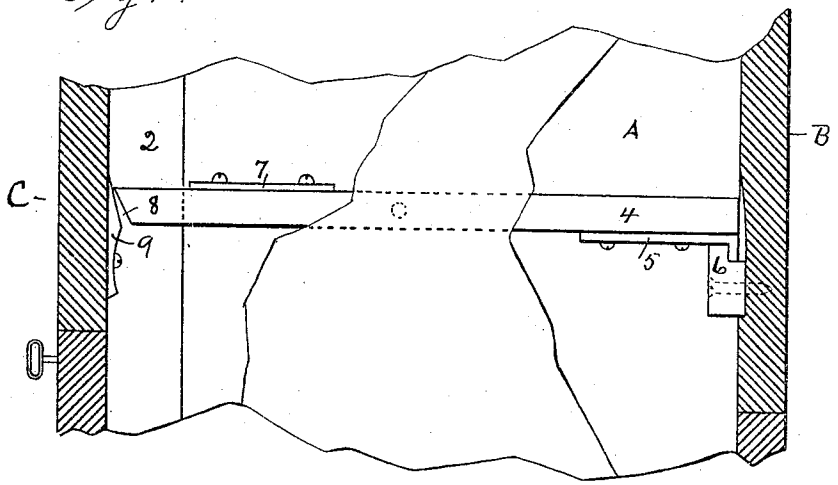
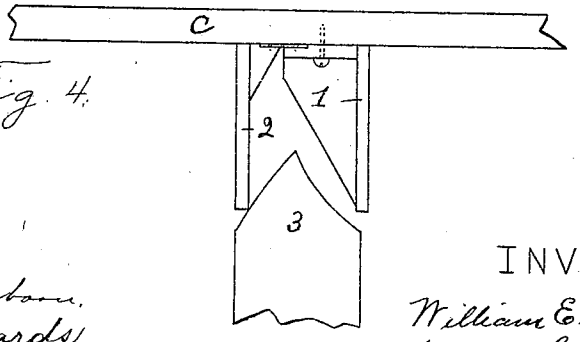


Fig. 4.



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UNITED STATES PATENT OFFICE.

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VENDING-MACHINE.

No. 814,712. Specification of Letters Patent. Patented March 13, 1906.

Application filed December 8, 1904. Serial No. 235,935.

To all whom it may concern:

Be it known that we, WILLIAM E. LEIGHTON, a resident of Pembroke, and FRED A. HOLMES, a resident of Eastport, in the county of Washington and State of Maine, citizens of the United States, have invented new and useful Improvements in Vending-Machines, of which the following is a specification.

Our invention relates to improvements in vending-machines, and more particularly to such as operate by coin-controlled mechanism. It is especially designed to vend articles contained in envelops or similar packages which when in the envelops form more or less irregular-shaped packages.

In the drawings herewith accompanying and making a part of this application, Figure 1 is a sectional perspective view of our improved machine arranged for two carriers, one only being shown, the back and front doors being shown open. Fig. 2 is a horizontal section of the same, taken just above the door-locking lever. Fig. 3 is a detail vertical sectional view, enlarged, of Fig. 2; and Fig. 4 is a detail plan view of the guide-partitions attached to the door and means for opening the hinged member thereof.

The same letters of reference refer to like parts.

In said drawings, A represents a suitable casing having two doors B in the front thereof and C in the back. Mounted on sprocket-wheels D, suitably journaled within the casing, are one or more chain or link carriers E, having holes F, one in each link, into which take the cogs G on the sprockets. Each link is provided with a hook H for suspending a package I or a weight J, said weight, in combination with the packages, tending always to cause the carrier to rotate. Rotation is normally prevented by an escapement K, which takes into the space between the cogs on the sprocket. The escapement is controlled by means of a pivot-lever L contiguous to a coin-chute M. Lever L for convenience is pivotally secured to a bracket N, attached to an upright O, and is provided with a counterbalance-weight P. Access to the coin-chute for a coin is through a slot Q in the front casing, and the usual receptacles R are provided at the foot of the chute for the coin. The chute may also have an opening S in the side adapted to sidetrack coins of other denominations, and a separate receptacle T is provided therefor. The slot is adapted to be closed when the last package of the carrier has been delivered in any convenient manner, as by a slide U, (shown in dotted lines in Fig. 1,) pivotally secured to the inside of the casing adjacent the slot and operable by means of a weight J, mounted on the carrier, striking the end of a lever V, pivotally secured to the frame, which through a link W, pivotally connected at one end to the lever V and at the other end to the pivoted slide U, causes said slide to rotate on its pivot and to pass over and close the coin-receiving slot. The carrier passes inside of an open frame X, arranged below the sprocket-wheel and preferably somewhat within a perpendicular coincident with the portion of the carrier on which the packages are mounted, so that as each package in its turn as the carrier rotates reaches a point below the center of the sprocket and approaches the frame it passes outside of the frame. The hooks upon which the packages are suspended being curved, the packages are discharged successively from the carrier as the carrier revolves by contact with frame X and fall upon the inclined way Y and are thence delivered through an opening Z in the casing. The weight should be placed upon the hook immediately above the last package, so that when all the packages on the carrier are delivered the weight will engage the end of lever V, close the coin-slot, and thus prevent any one from putting a coin in the slot after the carrier is empty.

When two or more carriers are employed, it is found advantageous after the carriers have been loaded to provide means for preventing them from possible entanglement with each other. We have found it convenient for this purpose to attach a double partition to the back door, partition 1, nearest the hinge on the door, being rigid and partition 2, nearest the edge of the door, being hinged, so as to be turned toward 1 to enable it to more readily enter the space between the packages as the door closes. As the door closes the hinged partition engages a wedge-shaped projection 3, attached to the top of the casing, and opens the hinged partition, as shown in Fig. 4. The advantages of having these partitions on the door is that the carriers are better exposed and more easily loaded than if the partition were stationary.

In Figs. 2 and 3 we have shown a conven-

ient means of automatically locking the front door by the closing of the back door. A locking-bar 4 is pivotally attached to the side of the casing. Said bar has on its front end a latch 5, adapted to take into a recessed keeper 6, secured to the front door. The bar is counterbalanced, if necessary, by a weight 7, secured to the opposite end. The extremity is beveled, as seen at 8, and the front door is provided with a beveled lug 9, which when the door is closed raises the back end of the lever and causes the front end to engage its keeper, thus locking the front door when the back door is closed.

The operation of our improved vending-machine has been described in connection with the description of its mechanism.

The advantages of our improved vending-machine are that it enables the vending of irregular-shaped packages, it automatically closes the coin-receiving slot when the last package has been delivered, it provides vertical partitions for separating the packages which come into place after the packages are placed upon the carrier and when the door is closed, and it has means of locking both doors with a single key.

Having thus described our invention and its use, what we claim as our invention, and desire to secure by Letters Patent, is—

1. In a vending-machine, a suitable casing, an endless link carrier mounted therein, each link being provided with means for supporting a package in pendent position, mechanism for imparting a step-by-step rotation to said link carrier and means for automatically discharging the packages from said carrier.

2. In a vending-machine, a suitable casing, sprocket-wheels mounted therein, an endless link carrier mounted on said wheels, each link provided with an opening into which the cogs on the sprocket take, means for imparting a step-by-step rotation to said carrier, each link being provided with a package-suspending device and means for discharging packages from said carrier consisting of an open frame mounted beneath the sprocket and positioned so as to come between the carrier as it passes around the sprocket and the free extremity of the package.

3. In a vending-machine, a suitable casing, a link carrier, each link being provided with a curved package-suspending device, apparatus for imparting a step-by-step rotation to said carrier and means for automatically discharging the packages from said curved package-suspending device.

4. In a vending-machine, a suitable casing, sprocket-wheels mounted therein, endless link carriers mounted upon said sprocket-wheels, apparatus adapted to impart a step-by-step rotation to said sprocket-wheels and carriers, said carriers being provided with package-suspending devices, in combination with a door having partitions adapted when the door is closed to separate the packages upon adjacent carriers from each other.

5. In a vending-machine, a suitable casing, sprocket-wheels mounted therein, endless link carriers mounted upon said sprocket-wheels, apparatus adapted to impart a step-by-step rotation to said sprocket-wheels and carriers, said carriers being provided with package-suspending devices, in combination with a door having partitions adapted when the door is closed to separate the packages upon adjacent carriers from each other, one of said partitions being hinged, and a wedge-shaped projection on the casing to open said hinged partition as the door closes.

In testimony whereof we have signed our names to this specification, in presence of two subscribing witnesses, this 3d day of December, 1904.

WILLIAM E. LEIGHTON.
FRED A. HOLMES.

Witnesses:
I. HOBART ALLAN,
MARY E. MCFAUL.