

UNITED STATES PATENT OFFICE.

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VENDING-MACHINE.

No. 836,722.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed January 13, 1906. Serial No. 295,870.

To all whom it may concern:

Be it known that I, NILS C. WALLENTIN, a citizen of the United States, residing at the town of Central Falls, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in coin-controlled vending-machines.

The object of the invention is to provide a simple, compact, and effective machine in which a large number of articles to be vended may be stored and to provide means whereby these articles may be automatically fed from the storage departments into the chute, where they are fed forward by gravity and eventually ejected from the machine one at a time, thereby keeping said chute continually replenished. By this improved arrangement the machines will run a great while without having to be refilled by an attendant.

Any desired coin-controlled operating means may be employed to eject the articles from the machine.

With these objects in view the invention will be hereinafter fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a rear view of a vending-machine embodying my invention, parts being shown in section. Fig. 2 is a side elevation of the same parts, also being shown in section.

Referring to the drawings, 1 designates the outer casing of the machine, which may be constructed in any suitable form and of any suitable material. In the lower part of this casing is located the coin-controlled ejecting mechanism, the upper portion of said casing being preferably arranged to receive and store the articles to be vended. These articles may be put up in any desired form, but I have preferably placed them in cylindrical cartons 2 to facilitate their handling.

Within the outer casing 1 is arranged a plurality of adjacent compartments, two of which, 3 and 4, being shown, but any desired number may be employed in which to store the articles to be vended. Compartment 3 in this present case forms the chute in which the articles are conveyed by gravity to the ejector member 5, upon the upper end of which the lowermost carton 6 is supported.

Compartment 4 is arranged to communicate with compartment 3 at its upper end. This compartment is simply used for the purpose of storing the extra cartons from which the main chute 3 is automatically replenished as fast as the articles are ejected from the machine. The articles stored in this compartment 4 are supported upon the saddle 7, against which the lowermost article 16 rests. This saddle is suspended from either side by the flexible wire or cord 8 and 9, cord 8 leading up over pulley 10, across to the opposite side, over pulley 11, and from its end is suspended the counterweight 12, while cord 9 leads up over pulley 13 across to pulley 14 and from its ends is suspended the weight 15. By means of these weights the cartons in compartment 4 are raised, causing the uppermost carton 18 to follow the curved upper end of the compartment until said carton falls over into the chute or compartment 3. From here it follows the others down by gravity to be eventually thrown out by the ejector 5 below.

I have shown counterbalancing-weights for operating to replenish the chute 3; but any desired or convenient mechanism may be used for this purpose without departing from the spirit or scope of my invention.

My present invention is not limited to any particular coin-controlled ejecting mechanism, but the following is a general description of the ejecting mechanism shown, the details of which are more particularly described in my pending application, Serial No. 268,919, filed July 10, 1905.

The essential features of this delivery mechanism comprises the ejector member 18, pivoted at its lower end at 19, which serves to support the lowermost carton 6 on its upper end, as shown in Fig. 2. This member is held normally beneath said chute by means of the spring 20. This member is also provided at 21 with a cam-faced portion. On the rotatable shaft 22 is mounted the coin-chute 23. The coin C is designed to enter the top of this chute and lodge at its lower end. The dog 24 is pivoted to rotate also with said shaft, one end of said dog 25 being arranged to engage the cam-face 21, while the opposite end 26 of said dog is arranged to engage the coin C retained in the chute. As the shaft 22 is now rotated by the actuating-handle 27 the end 25 of the dog rides on the cam-face 21 of the ejector member, carrying said member back-

ward to the position shown in the dotted line in Fig. 2 out from under the carton 6, allowing said carton to drop onto the surface 28 in position to be kicked out on the return stroke of said ejector member. This carton thus ejected drops down into the passage-way 29 and rolls out at the front end 30.

To automatically replenish the chute or delivery compartment from an extra quantity of articles to be vended stored within the machine is a new, practical, and very desirable feature for a machine of this character.

The machine may thus be made very small and compact and all of the room utilized, and by this automatic replenishing arrangement the machine will continue to operate for almost an indefinite period without requiring to be refilled or any attention whatever from an attendant.

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

1. A vending apparatus comprising a casing provided with a compartment, a pivoted member adjacent the bottom of said compartment for supporting the articles contained therein, means for rocking said pivoted member to allow one of said articles to fall, and means for supporting the displaced article in a position to intercept the path of movement of said pivoted member, whereby the return movement of the latter will eject said displaced article.

2. A vending apparatus comprising a cas-

ing provided with adjoining compartments which communicate with each other near their upper ends, a pivoted member adjacent the bottom of one of said compartments for supporting the articles contained therein, means for rocking said pivoted member to allow one of said articles to fall, means for supporting the displaced article in a position to intercept the path of return movement of said member, whereby the displaced article is ejected, and means for automatically replacing the delivered article by transferring a new article from one compartment to the other.

3. A vending apparatus comprising a casing provided with adjoining compartments which communicate with each other at the top, a counterbalanced suspended support for automatically transferring articles from one compartment to the second compartment, a pivoted member adjacent the bottom of the second compartment for supporting the articles contained therein, means for rocking said pivoted member to allow one of said articles to fall, and means for supporting the displaced article in a position to intercept the path of movement of said pivoted member, whereby the return movement of the latter will eject the displaced article.

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

NILS C. WALLENTIN.

Witnesses:

HOWARD E. BARLOW,
E. I. OGDEN.