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1,517,066

J. D. HOPE

VENDING MACHINE

Filed Feb. 14, 1923

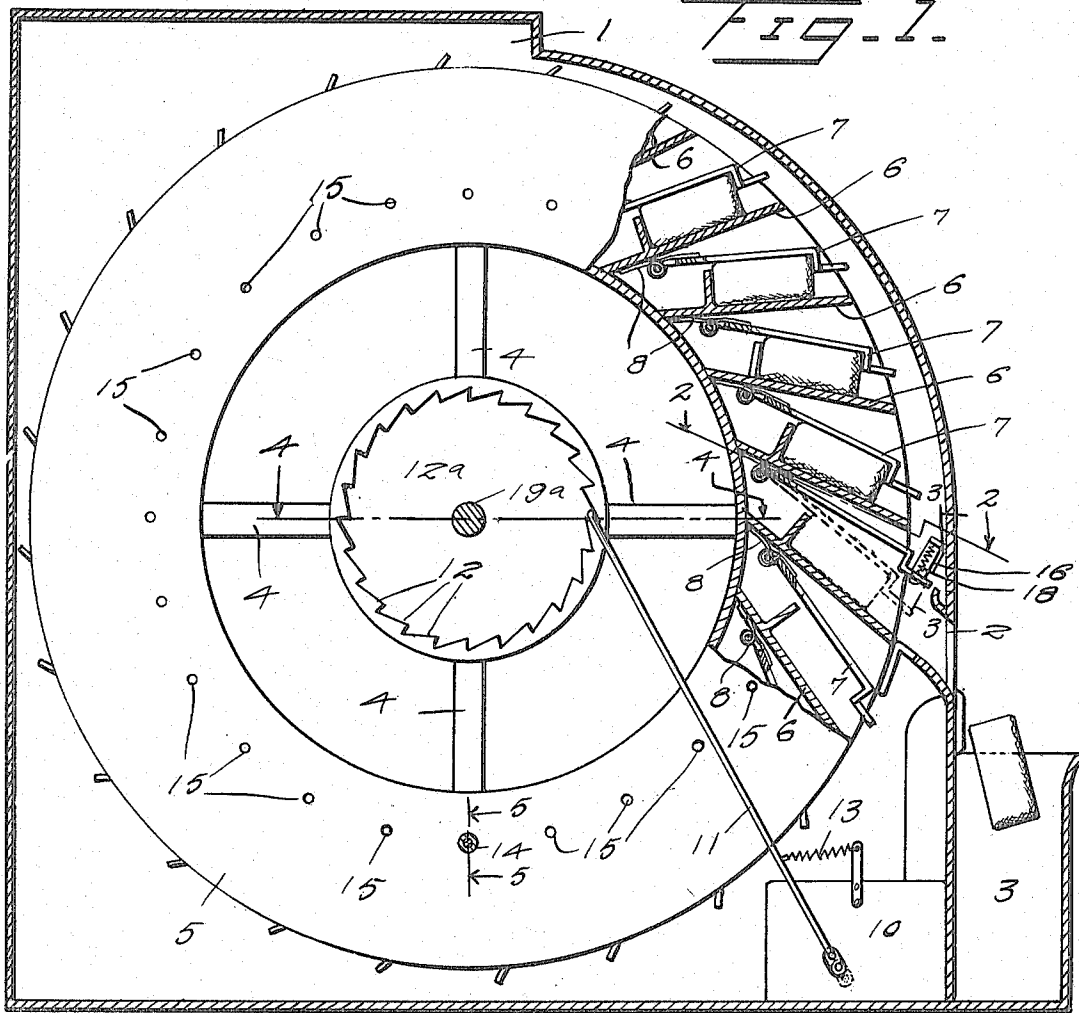


FIG. 1.

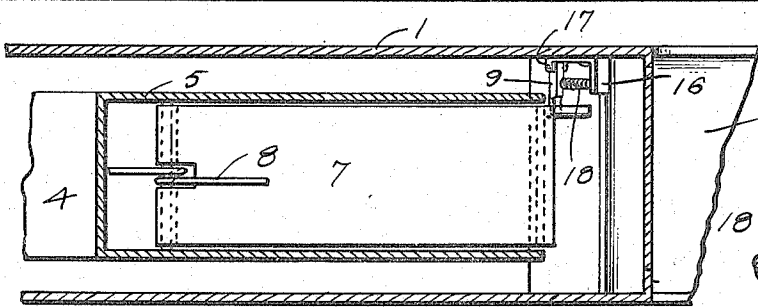


FIG. 2.

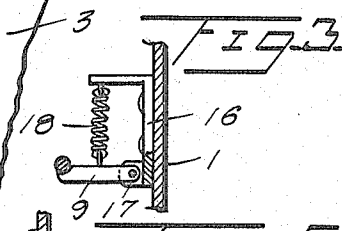


FIG. 3.

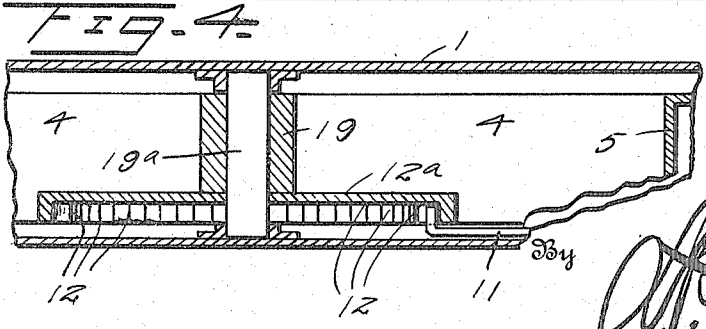


FIG. 4.

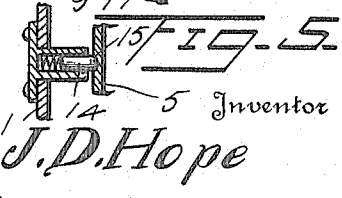


FIG. 5.

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UNITED STATES PATENT OFFICE.

JAMES D. HOPE, OF SHARON, SOUTH CAROLINA.

VENDING MACHINE.

Application filed February 14, 1923. Serial No. 618,974.

To all whom it may concern:

Be it known that I, JAMES D. HOPE, a citizen of the United States, residing at Sharon, in the county of York and State of South Carolina, have invented certain new and useful Improvements in Vending Machines; and I do hereby declare the following to be 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.

The invention has relation to a machine for vending goods such as candy, chewing gum, cigars and like goods in relatively small packages, the machine embodying a rotary container which is adapted to be intermittently operated to dispense a single article or package for each coin deposited. The cabinet receiving the rotary container is provided with a delivery opening for the discharge of the article or package, the latter being released by a suitably disposed trip adjacent the delivery opening.

Other objects and advantages will be apparent and suggest themselves as the nature of the invention is understood.

While the drawings illustrate an embodiment of the invention it is to be understood that in adapting the same to meet different conditions and requirements, various changes in the form, proportion and minor details of construction may be resorted to without departing from the nature of the invention.

Referring to the accompanying drawings forming a part of the application,

Figure 1 is a detail view partly in section of a vending machine embodying the invention,

Figure 2 is a detail sectional view of a portion of the rotary container taken on the line 2—2 of Figure 1, and

Figure 3 is a detail sectional view showing more clearly the trip for effecting release of the goods, taken on the line 3—3 of Figure 1, and

Figure 4 is a detail sectional view on the line 4—4 of Figure 1, and

Figure 5 is a detail sectional view on the line 5—5 of Figure 1.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The numeral 1 designates a suitable cabinet having a delivery opening 2 and a cup 3 or like device for receiving the goods as delivered from a machine. The cabinet 1 may be of any construction and its front is preferably of glass to admit of observation of the goods.

With the cabinet 1 is disposed a rotary container embodying spokes or arms 4 and a hollow rim 5 which is divided by partitions 6 into a plurality of compartments or cells for receiving the goods to be dispensed. The outer ends of the compartments or cells are open to admit of delivery of the goods through the opening 2. A retainer 7 is disposed in each of the compartments or cells and is pivoted at its inner end in line with the partition. A light spring 8 cooperates with each of the retainers 7 to hold the outer portion thereof extended across the compartment or cell to engage the goods and prevent displacement thereof until the retainer is tripped to release the goods which discharge through the delivery opening 2 and drop into the cup or receiver 3. The trip consists preferably of an arm 9 pivoted to a portion of the cabinet and extending within the path of the retainers so as to operate the one adjacent the delivery opening 2 whereby to release and effect delivery of the goods.

A suitable motor 10 is disposed within the cabinet 1 and a connection 11 actuated thereby cooperates with teeth 12 disposed about the rotary container whereby to operate the latter to successively bring the compartments or cells thereof in position for dispensing the goods. The connection 11 is shown as consisting of a rod and a spring 13 in cooperative relation therewith holds it in engagement with the teeth 12. A detent 14 engages the recesses 15 to prevent accidental rotation of the rotary container. The motor 10 is adapted to be tripped or set in motion when a coin of denominated value is deposited within the machine, said motor operating for an interval of time to move the container to advance the next compartment into position for delivery of the goods held thereby, it being necessary to deposit a coin for each vending operation.

The trip arm 9 is pivoted as shown at 17 to a bracket 16 which is riveted or otherwise

rigidly secured to a wall of the casing 1. A coil spring 18 yieldingly supports the outer end of the arm 9 in a horizontal position. The coil spring 18 is of greater strength than the spring 8 and when a retainer 7 engages the trip arm the retainer is raised to release and effect delivery of the goods. When the connection 11 is operated to further rotate the container and effect a vending operation, the tension of the spring 18 will be overcome and the trip arm 9 will be moved downward to release the retainer with which it is in engagement and will be returned to its normal position to engage the next successive retainer.

The shallow recesses 15 are formed in a side flange of the hollow rim 5 and are adapted to be successively engaged by the spring pressed detent 14, which is mounted in a suitable housing rigidly secured to and supported by a wall of the casing. The detent 14 engaging in the recesses 15 prevents backward rotation of the container and also serves to check forward rotation of the same to successively present the compartments in a position to be emptied when the motor is again started. The checking action of the detent is materially assisted by the springs 13 and 16 and the combined check-

ing action of these elements is overcome by the motor 10 when operated.

The rotary container has its hub 19 mounted on the shaft 19^a as clearly illustrated in Figure 4 and the hub and the radial spokes 4 form supporting means for the member 12^a which carries the teeth 12.

What is claimed is:

A vending machine comprising a rotary container embodying a plurality of compartments, a casing enclosing said container and having an outlet opening, means to rotate said container to successively present said compartment to said outlet, said means including an internally toothed circular rack mounted to rotate with said rotary container, a rod having a portion to successively engage the teeth of said rack, means to move said rod longitudinally to rotate said container, and a coil spring having one end connected with said rod and adapted to maintain said rod in engagement with said rack.

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

JAMES D. HOPE,

Witnesses:

S. A. HOPE,
R. L. GRAVLEY.