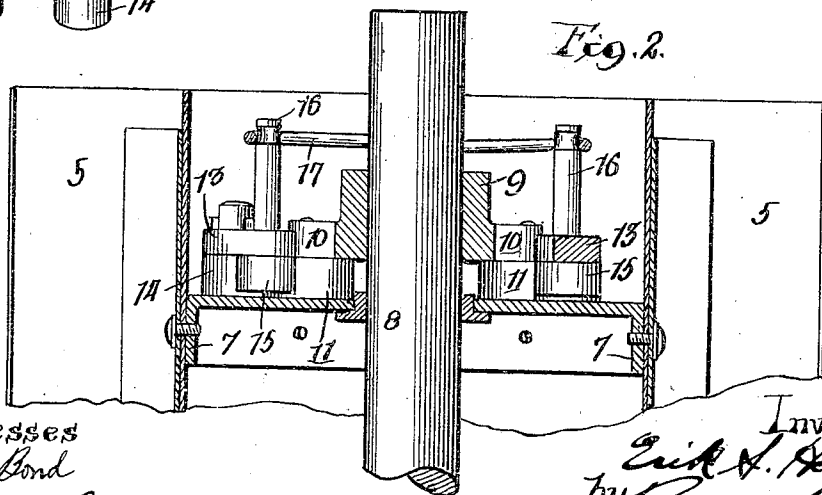
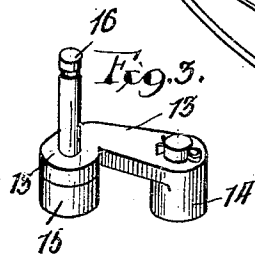
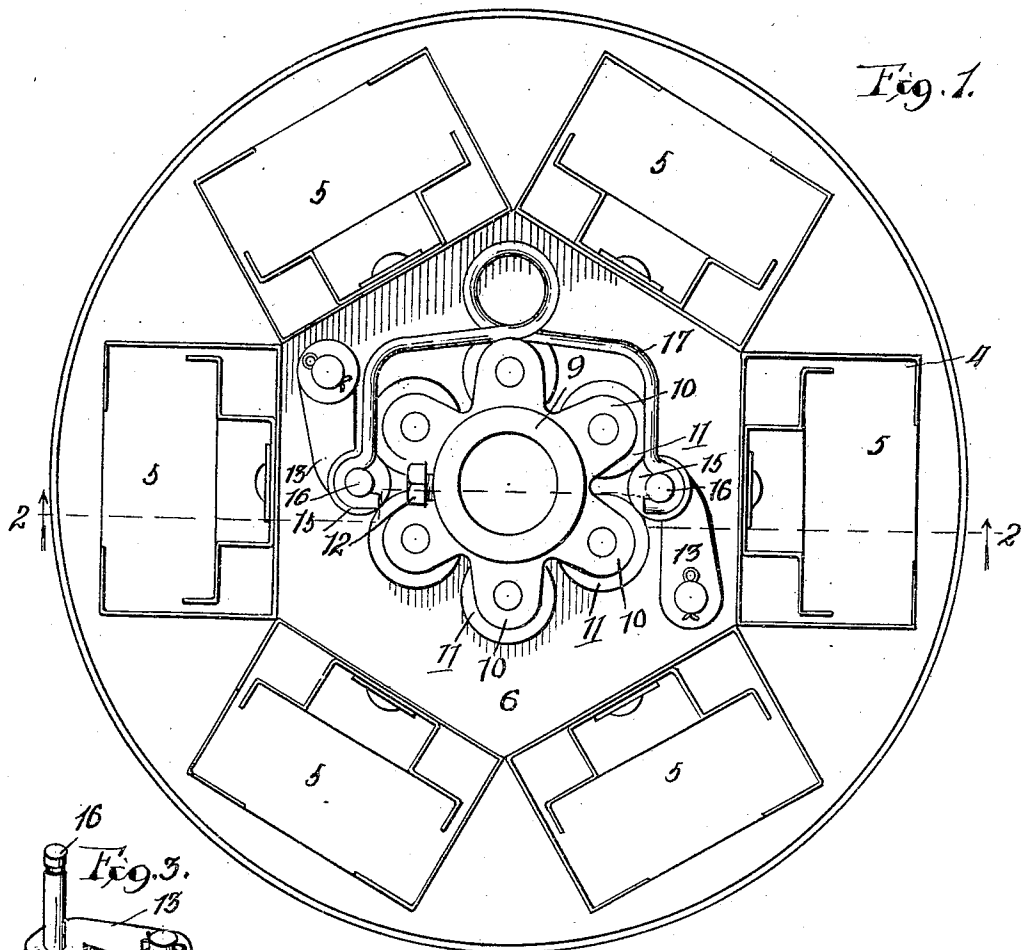


E. S. HAGEN.
 CENTERING MECHANISM FOR ROTARY VENDING MACHINES.
 APPLICATION FILED OCT. 29, 1907.

958,491.

Patented May 17, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

ERIK S. HAGEN, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
GLOBE VENDING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CENTERING MECHANISM FOR ROTARY VENDING-MACHINES.

958,491.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed October 29, 1907. Serial No. 399,706.

To all whom it may concern:

Be it known that I, ERIK S. HAGEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Centering Mechanism for Rotary Vending-Machines, of which the following is a specification.

The centering mechanism of the present invention is intended to be used in combination with a vending machine of the rotary type, having a plurality of package chutes for the vending of different commodities.

The object of the present invention is to provide mechanism for centering the rotary package carrier in its several positions of adjustment in order that a commodity of desired character can be discharged from the proper chute. The centering mechanism is intended to provide a firm and comparatively rigid means for holding the carrier in adjusted position and at the same time provide for the rotation of the package carrier by the purchaser without difficulty. The mechanism is further intended to permit the adjustment to be made in an easy, smooth and noiseless manner and without racking or jarring the machine.

A further object of the invention is to make the mechanism so simple and compact that it can be applied to a vending machine of the ordinary character without difficulty and without utilizing any space which might be otherwise used.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a top or plan view of the interior of a rotary vending machine, showing the centering mechanism in plan; Fig. 2 a sectional elevation of the same; and Fig. 3 a perspective view of one of the spring actuated arms.

The centering mechanism is applied to a vending machine having a rotary package carrier 4 which, in the present instance, comprises six vertical chutes or chambers 5, of substantially rectangular shape, each adapted to receive a column of goods, and the six chutes are radially secured to and movable with a supporting plate 6 which, in the present instance, is of hexagonal shape, and is provided along each of its edges with a depending flange 7 to which the back of the adjacent chute is rigidly secured. The sup-

porting plate is preferably located a short distance below the upper end of the chutes, which provides a space on the interior of the package carrier for the centering mechanism, which forms the subject matter of the present invention. The package carrier as a whole is supported upon and revoluble around a center post 8 which passes through the center of the supporting plate. Immediately above the plate 6 is a collar 9 provided, in the present instance, with six radially arranged ears 10 which are integrally formed with the collar and extend outwardly therefrom, as best shown in Fig. 1. The ears are positioned to extend in line with the contacting corners of adjacent chutes, which leaves a recessed portion of the collar 9 immediately behind the center of each of the package carriers. Each of the ears has pivoted thereto, between the ear and the supporting plate, a roller 11, which is of sufficient diameter to project beyond the end of the ear to which it is attached. The rollers thus arranged constitute, in effect, a corrugated trackway around the center post, a roller being provided between each of the package chutes. The collar 9 is rigidly positioned on the center post by means of a set screw 12, which arrangement permits the collar, with the rollers secured thereto, to be positioned and adjusted without any difficulty.

The rollers cooperate with a pair of arms 13, each of which is provided, at one end, with a depending lug 14 which is pivoted to the supporting plate, the arms being pivoted at points diametrically opposite to each other. Each of the arms has pivoted at its end a roller 15 which is adapted to contact the rollers 11 as the package carrier is revolved around the center post as an axis. Immediately above the roller 15 on each of the arms is an upwardly extending pin 16, which pins are connected together by means of a bow-shaped spring 17 adapted to exert an inward pull or tension on the ends of the arms and hold the rollers 15 tightly in contact with the rollers which constitute the corrugated roller trackway.

In use, the rotary package carrier can be revolved around the center post as an axis until the chute containing the desired column of goods is brought into alinement with the discharging mechanism of the machine, and the chosen chute will be accurately posi-

tioned during the discharging operation by the action of the spring compressed arms, the rollers of which will roll along the fixedly positioned rollers forming the corrugated trackway. The rollers 15 will be held in close contact with the track rollers by the action of the bow-spring, and each time the rollers 15 are brought to a position between a pair of adjacent track rollers the machine will be centered to discharge from one of the chutes. As the machine is revolved the rollers 15 will ride up on the track rollers and thereafter ride down into one of the depressions between the rollers, so that, after a rotary impulse has been given to the machine sufficient to carry the rollers 15 over the outermost point of the track rollers which are contacted, for the time being, the bow-spring will act and cause the machine to revolve sufficiently to carry down the rollers 15 into one of the spaces, thereby relieving the bow-spring from its maximum tension. The contact between the two sets of rollers will cause the machine to move with an easy and substantially noiseless action and without jarring or rocking the machine. At the same time the centering operation will always be perfectly performed, since the machine will automatically assume a proper position after an initial rotary impulse has been given. It will be understood that the number of package chutes can be varied indefinitely and the number of track rollers correspondingly varied, without departing in any way from the spirit of the invention.

What I regard as new and desire to secure by Letters Patent is:

1. In combination with a rotary package carrier having a plurality of chutes, a fixedly positioned member, a plurality of rollers pivoted to said member and forming, in effect, a corrugated trackway, and a spring actuated member on the package carrier

adapted to be held in contact with said rollers, substantially as described.

2. In combination with a rotary package carrier having a plurality of chutes, a fixedly positioned member, a plurality of rollers pivoted to said member and forming, in effect, a corrugated trackway, an arm pivoted to the package carrier, and a spring for holding the arm in coöperative relation with the track rollers, substantially as described.

3. In combination with a rotary package carrier having a plurality of chutes, a fixedly positioned member, a plurality of rollers pivoted to said member and forming, in effect, a corrugated trackway, an arm pivoted to the package carrier, a roller on said arm, and a spring for holding said roller in contact with the track rollers, substantially as described.

4. In combination with a rotary package carrier having a plurality of chutes, a fixedly positioned member, a plurality of rollers pivoted to said member and forming, in effect, a corrugated trackway, a plurality of arms pivoted to the package carrier, a roller for each arm, and a spring connecting the free ends of the arms for holding the rollers on the arms in yieldable contact with the track rollers, substantially as described.

5. In combination with a rotary package carrier, a fixedly mounted center post, a collar rigidly secured to the center post and having pivoted thereto a roller for each compartment of the package carrier, a pair of oppositely disposed arms pivoted to the carrier, a roller on the free end of each arm, and a spring connecting the free ends of the arms and holding the rollers thereon in engagement with the track rollers, substantially as described.

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Witnesses:

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