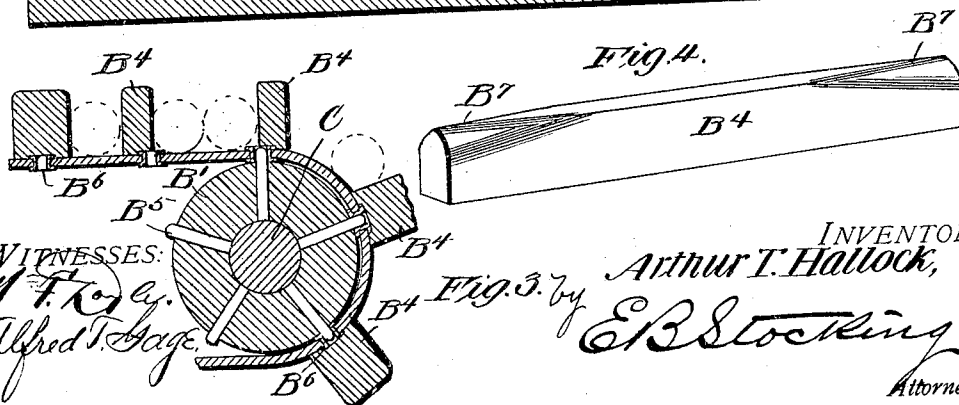
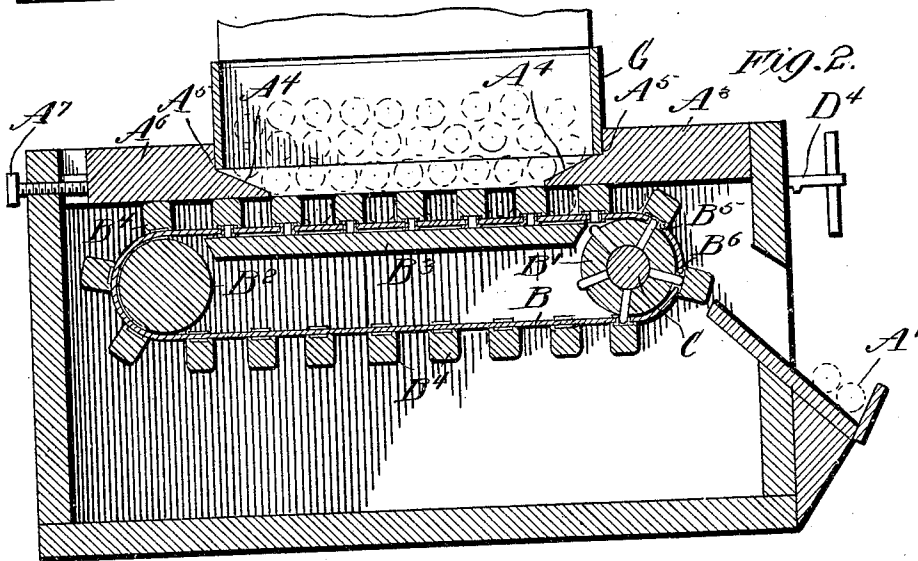
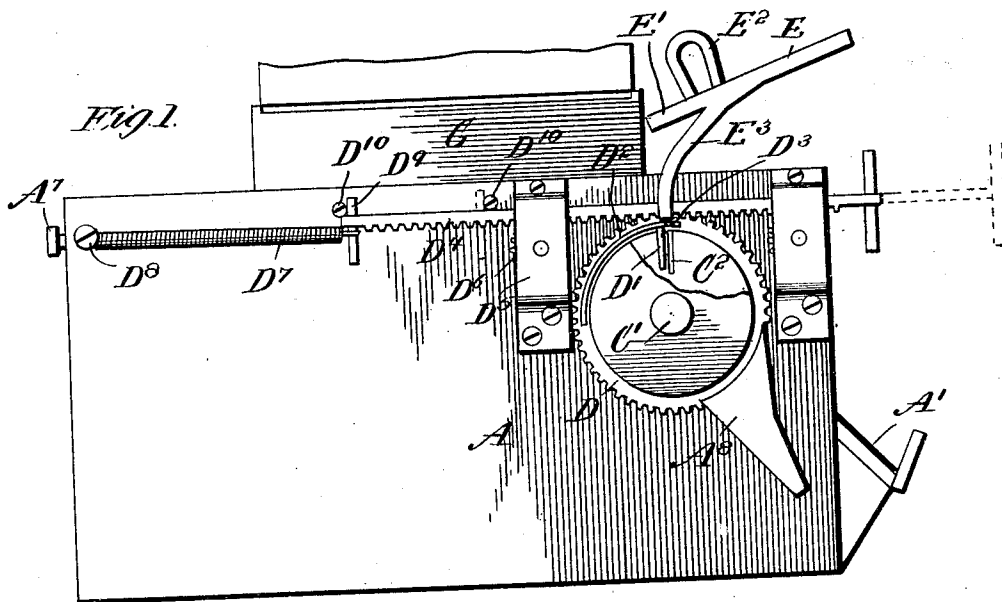


No. 807,376.

PATENTED DEC. 12, 1905.

A. T. HALLOCK.
VENDING MACHINE.
APPLICATION FILED FEB. 18, 1905.



WITNESSES:
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VENDING-MACHINE.

No. 807,376.

Specification of Letters Patent.

Patented Dec. 12, 1905.

Application filed February 18, 1905. Serial No. 246,280.

To all whom it may concern:

Be it known that I, ARTHUR T. HALLOCK, a citizen of the United States, residing at Canandaigua, in the county of Ontario, State of New York, 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 a vending apparatus, and particularly to a machine adapted for the delivery of articles by the introduction of a coin or other check to render the same operative.

The invention has for an object to provide an improved construction and arrangement of the delivery apron or belt provided with a series of pockets or receptacles thereon disposed beneath an original package carrying the articles to be delivered, whereby said articles will be automatically received in the pockets and delivered by the apron.

A further object of the invention is to provide an improved construction of cross-bars upon said apron in order to facilitate the introduction of an article into the pocket and prevent injury to those above the bar.

Another object of the invention is to arrange these bars in such relative position that a different number of articles may be delivered from the apron at predetermined times in its travel.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is a side elevation of the apparatus; Fig. 2, a central longitudinal section thereof; Fig. 3, a detail enlarged section of the belt or apron, and Fig. 4 a detail perspective view of one of the cross-bars.

Like letters of reference refer to like parts in the several figures of the drawings.

The letter A designates the frame or supporting-casing of the operative parts of the machine, which may be of any desired size, construction, or configuration. This is preferably provided at its front portion with a delivery-trough A', in which the articles are discharged from the belt or apron B, as this apron passes over its driving-roll B' at the front of the machine. At the opposite end of the belt a carrier-roll B² is provided, and beneath the

upper surface of the belt a supporting-table B³ is disposed to prevent sagging of the belt and to hold the cross-bars B⁴ thereof against vertical movement in their passage beneath the top of the apparatus.

For the purpose of preventing slipping of the belt or apron, and consequently producing an irregular feed, the driving-roll B' is provided with pins or projections B⁵, extending therefrom, which engage with sockets B⁶, carried by the belt and inserted beneath and seated into the cross-bars B⁴. These sockets are preferably disposed at the mid-width of the belt in order to prevent any side pull or twisting action thereof which would throw the cross-bars out of proper position for receiving the articles deposited therein.

For the purpose of supporting the package G, containing the articles to be sold, which in the case of cigars should be the original boxes with the bottom removed, the top of the frame is provided with a fixed portion A³, having an inclined or hopper portion A⁴ at its inner edge and provided with a supporting-shoulder A⁵, upon which the side wall of the box rests. At the opposite side of the box a similar top portion A⁶ is slidably mounted, so as to be adjusted to fit boxes of different sizes, and is likewise provided with a hopper portion A⁴ and shoulder A⁵, while it is adapted to be adjusted and held in its proper position by any desired means—for instance, a set-screw A⁷.

The cross-bar B⁴ is preferably tapered downwardly toward its opposite ends, as shown at B⁷, Fig. 4, thus presenting a downwardly-inclined face upon each side of the bar, which facilitates the introduction of the article into the pocket between the bars, particularly in the case of cigars, and also prevents violent contact with and injury to a layer of cigars resting upon these cross-bars. This construction and arrangement of the cross-bars has been found of particular importance in the vending of cigars, as in the ordinary construction of bar having an angular edge throughout its length this edge contacts with the wrapper of the cigars above and frequently breaks and injures the same—for instance, when the large end of a cigar lies over the smaller end of another cigar beneath it.

It is customary in selling certain articles, such as cigars, to offer an inducement of an extra article if a predetermined number is

purchased—for instance, in the case of a five-cent article six are sold for twenty-five cents. In order to accomplish this function, the cross-bars B⁴ at certain intervals—for instance, every fifth and sixth bar—may be cut away upon their corresponding walls sufficiently to provide a pocket or receptacle capable of receiving two articles or cigars, whereby the four succeeding pockets will each deliver one cigar and the fifth pocket delivers two, thus providing for the delivery of six cigars upon the introduction of five five-cent pieces. It is obvious that this number may be varied to any desired extent to secure the proper delivery for the coin to be introduced.

It will be obvious that in the operation of the machine two cigars may be delivered upon the introduction of the first or second coins, and this is an attraction to the purchaser; but in the successive operation of the machine the total delivery upon the successive introduction of five coins is always the same.

It will be obvious that any desired means may be used for driving this belt, one form of which is shown in my application filed of even date herewith and constitutes a coin-controlled apparatus. This form is herein illustrated and comprises a coin wheel or drum C', applied to the shaft C of the driving-roller. This coin-wheel is provided with radially-disposed slots C², into which the coin passes from a chute E, which is bifurcated at its lower end, so that the delivery-arm E³ thereof lies directly over a slot D³, formed in a guard-plate D², carried by a gear-wheel D. The discharge-arm E' of this chute is in direct alinement with the portion E, and a detector-magnet E² is provided at the juncture of the arms. The gear-wheel is provided with a dog or finger D', adapted to contact with a coin disposed in the slot of the coin-wheel, and thus rotate this wheel and the shaft of the driving-roller as the gear is rotated. The rotation of this gear is effected by means of a rack-bar D⁴, provided with a suitable operating-handle at the front of the machine, and is mounted upon bearing-gears D⁶, carried by keepers D⁵. The travel of this rack-bar is limited in opposite directions by means of stops D¹⁰, carried upon the frame, which engage a pin D⁹ at the end of the bar. For the purpose of retracting the bar a tension-spring D⁷ extends from this pin to a fixed point D⁸ upon the frame. Beneath the coin-wheel a suitable coin-delivery chute A⁸ may be provided.

In the operation of the machine it will be seen that each reciprocation of the rack-bar provides an intermittent motion to the driving-roller for the belt or apron, so as to present one of the pockets to the discharge-trough and to discharge the article therefrom. This continued intermittent movement is dependent upon the introduction of a coin, and in the form of the invention where a greater number of articles is delivered at one of these move-

ments the travel of the belt is not varied, but the capacity of the pocket increased to receive the additional article. By the construction and arrangement of the flexible canvas belt extending entirely beneath the area of the opening through which the articles are received and provided with the cross-bars forming a series of pockets continuously presented beneath this opening it will be seen that articles may be directly and automatically taken from the original package and separately delivered without danger of injury and with a simplicity of construction which obviates a complicated mechanical structure liable to being disarranged in the operation to which such machines are often subjected.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. In a vending-machine, an endless delivery-belt, a driving-roller therefor, and cross-bars to form pockets upon said belt downwardly tapered toward each side at their opposite ends and provided with a plane supporting portion intermediate of said ends.

2. In a vending-machine, an endless delivery-belt, a driving-roller, cross-bars upon said belt disposed to form a series of pockets extending transversely of the belt, sockets disposed in said belt beneath each of said bars at their mid-length, and radial projections carried by the driving-roller to engage said sockets.

3. In a vending apparatus, a delivery-belt provided with adjacent cross-bars reduced in diameter relative to other bars upon the belt to form pockets thereon of different capacities, and means for intermittently moving said belt.

4. In a vending-machine, a frame, a top portion comprising fixed and movable sections, a shoulder upon said sections to receive a package containing articles to be delivered, and a hopper portion extending downward from said shoulder.

5. In a vending-machine, a frame, a top portion comprising fixed and movable sections, a shoulder upon said sections to receive a package containing articles to be delivered, a hopper portion extending downward from said shoulder, an endless carrier provided with a series of pockets upon its surface adapted to travel beneath said hopper, and means for imparting an intermittent motion to said belt.

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

ARTHUR T. HALLOCK.

Witnesses:

ALFRED T. GAGE,

JOHN E. LANSDALE.