

(No Model.)

2 Sheets—Sheet 1.

J. W. PETERSON.
COIN CONTROLLED VENDING MACHINE.

No. 579,330.

Patented Mar. 23, 1897.

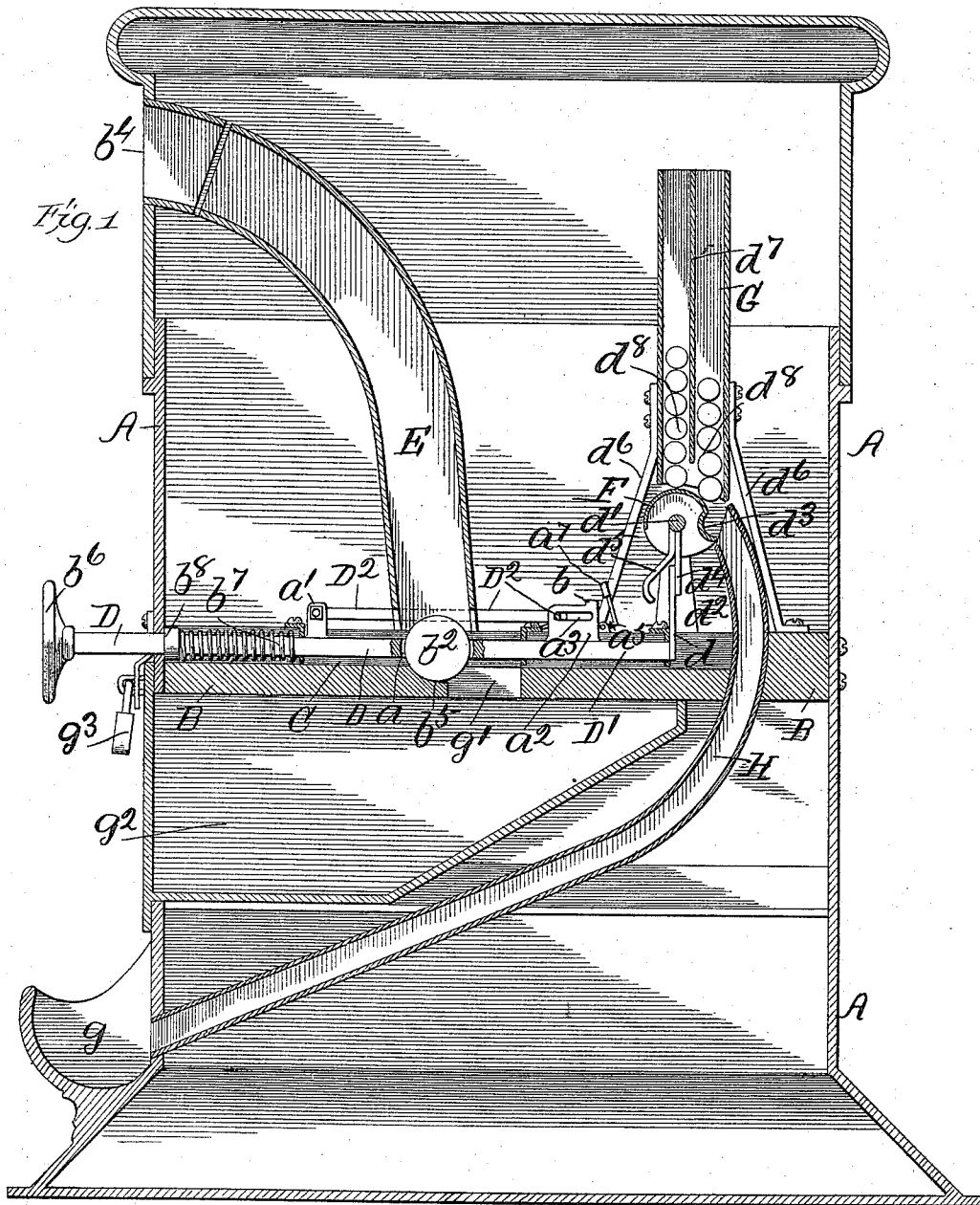


Fig. 5. D² a¹ a³
a² a⁴
a⁵ a⁶ a⁷ a⁸ D¹
B' By J. W. Peterson.
L. B. Coupland & Co.
Solicitors.

Witnesses:
E. C. Gaylord,
Lute J. Miller.

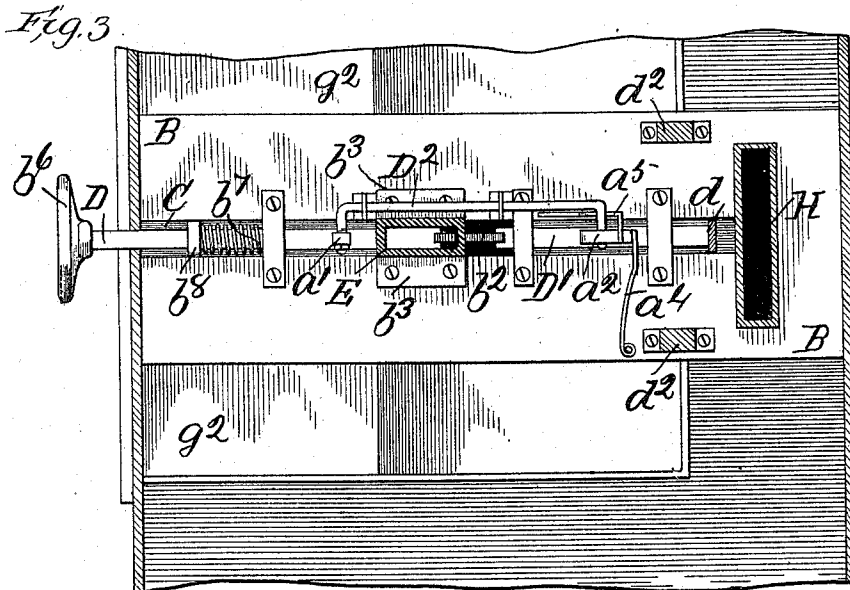
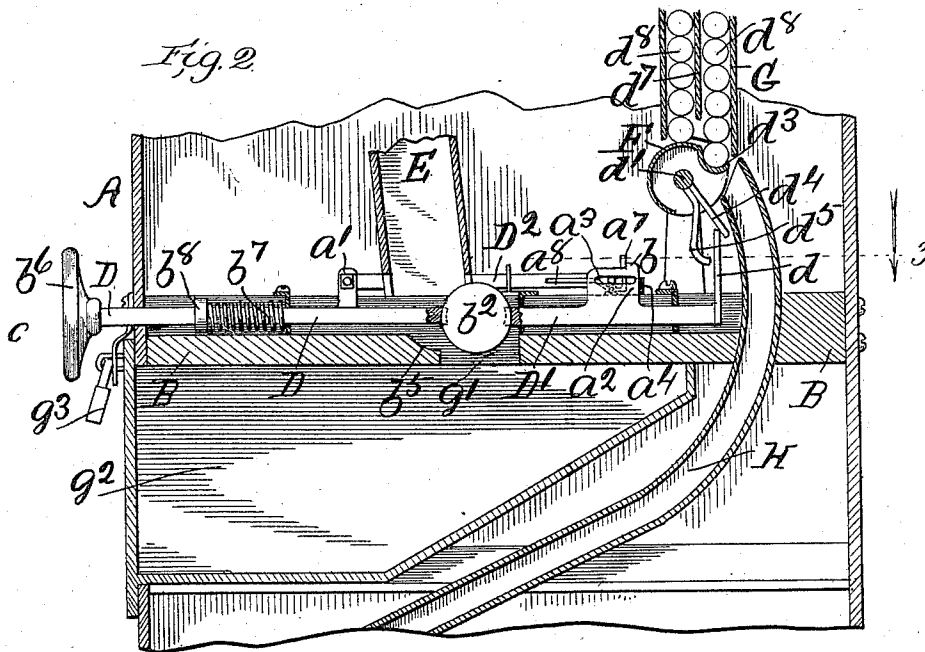
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Witnesses:

Chas. E. Payford.
Will J. Miller

Inventor.
J. W. Peterson.
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UNITED STATES PATENT OFFICE.

JOHN W. PETERSON, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 579,330, dated March 23, 1897.

Application filed August 20, 1896. Serial No. 603,322. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. PETERSON, 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 Coin-Controlled Vending-Machines; and I do hereby declare the following to be a 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.

This invention relates to that class of machines that are automatically operated by the dropping in of a coin of a certain value for the purpose of ejecting therefrom such articles of merchandise as may be therein contained.

This apparatus is more especially intended for use in vending small sample bottles or vials containing perfumery; and to this end it consists of certain novel features in construction, arrangement, and operation, as will be hereinafter set forth.

Figure 1 is a vertical section of an apparatus embodying my improved features; Fig. 2, a broken-away vertical section showing the movable parts of the mechanism in their opposite positions from that illustrated in Fig. 1; Fig. 3, a horizontal section on line 3, Fig. 2, looking in the direction indicated by the arrow. Fig. 4 is a perspective of one of the bottles, and Fig. 5 a detached detail.

A represents an inclosing casing in which is located the operating mechanism. This casing may be of any suitable design, and will ordinarily be composed of a number of parts for the purpose of affording convenient access to the interior thereof.

A plate B extends across the interior of the casing and has its respective ends rigidly secured to the front and rear sides thereof. This plate supports the different parts of the apparatus in their working position. The upper side of the plate is provided with a groove C, in which is located the push-bar D and the ejector-bar D', having an endwise movement. The ejector-bar is a continuation of the push-bar and lies in the same plane therewith, forming what might be termed a "two-part" push-bar, the two parts being separated by the coin-space *a*. The two parts are

connected by a rod D², the respective ends of which are turned at right angles, one end being rigidly secured to a lug *a'*, formed on the push-bar D. A lug *a*² is formed on the ejector-bar D' and is provided with a slot *a*³, Fig. 5, in which is loosely inserted the opposite end of connecting-rod D². A spring *a*⁴ bears against the rear side of lug *a*² and assists in returning the ejector-bar to its normal position when the pressure on the push-bar is relaxed.

An angular locking-latch *a*⁵ is pivoted to the supporting-plate B, as at *a*⁶, and is adapted to have a rocking movement on its pivot. When the ejector-bar is in its normal position, the vertical locking part *a*⁷ of the latch assumes the position shown in Fig. 1. This part *a*⁷ is made heavier than the horizontal part *a*⁸ and will drop into the locking position back of a shoulder *b* on lug *a*² when the ejector-bar is pushed in to its innermost position. (Indicated in Figs. 2, 3, and 5.) This locking-latch is provided in its horizontal part with the inclined bend *b'*, Fig. 5, with which the inner end of rod D² comes in contact when the push and ejector bars are returning to a normal position, depressing the horizontal part and throwing the vertical part out of its locking engagement with shoulder *b*. The object of this latch arrangement is to momentarily retain the ejector-bar in its innermost position until after the push-bar has traveled some way back toward its normal position, so that the coin *b*² will surely be released from its position between the adjacent ends of the two bars. The slot in the lug on the ejector-bar provides for this independent movement of the two bars, as the connecting end of the rod D² can travel the length of the slot in either direction before actuating the ejector-bar. This connection also prevents the ejector-bar from being actuated by the movement of the push-bar when no coin has been inserted.

The lower end of a coin-chute E is provided with a flange *b*³ and secured to the supporting-plate B, as shown in Fig. 3. The upper end of this coin-chute is fixed in and opens out through the casing, as at *b*⁴, at which point the coin is inserted, and, descending, lodges between the adjacent ends of the push and

ejector bars, the lower edge resting on a ledge b^5 , formed on the supporting-plate, as shown in Fig. 1.

The push-bar projects through the front side of the casing and has a knob or button b^6 mounted on the end thereof. A spring b^7 , coiled on the push-bar, serves to return the same to a normal position when the inward pressure is relaxed. The stop-collar b^8 limits the outward movement of the push-bar.

The lower end of a post d is attached to the outer end of the ejector-bar. An ejector drum or roller F is mounted on a shaft d' , the respective ends of which are journaled in companion standards d^2 d^2 . This drum is provided on its periphery with a groove or recess d^3 , running lengthwise thereof. A straight finger d^4 and a curved finger d^5 are secured at their upper ends to drum-shaft d' and extend downwardly on each side of post d . Above the drum is located a flat tubular receptacle G , which is supported on legs d^6 d^6 and is open at both ends, the lower end opening onto the periphery of the drum. This receptacle is divided into two compartments by a partition d^7 . In these compartments is placed the article or merchandise to be dispensed. In this instance two columns of small bottles d^8 , which may be filled with perfumery or other liquid, are placed in the receptacle ready to be delivered by the operation of the machine. The partition d^7 stops short of the bottom, so that when the column of bottles nearest the point of discharge is exhausted the bottles in the second column will gravitate into position to be ejected in the order of succession.

The upper end of a delivery-chute H opens up at one side of the drum in position to receive the bottle or article discharged therefrom. The lower end of the delivery-chute opens out through the front of the casing near the bottom and deposits the article of merchandise in an exterior pocket g , from which it may be conveniently removed.

When the coin b^2 is moved from the position shown in Fig. 1 to the position shown in Fig. 2 and then released, it drops through an opening g' in the supporting-plate and is deposited in a removable drawer g^2 , which is prevented from being surreptitiously removed by a lock g^3 .

When the push-bar is forced inwardly without first inserting a coin, the inner end of rod D^2 , connecting the two-part push and ejector bar, slides in the slot in the lug formed on the ejector-bar, thus preventing an endwise movement of the latter and a rotary movement of the ejecting-drum.

The operation is as follows: The mechanism being in the normal position illustrated in Fig. 1, a coin is inserted which gravitates into the space separating the adjacent ends of the push and ejector bar and forms the necessary operative connection therebetween.

Then force the push-bar inwardly, which has the effect, in turn, of imparting the required endwise movement to the ejector-bar by reason of the coin clamped between the two bars. The inward movement of the ejector-bar causes the post, secured to the end thereof, to press against the straight finger attached to the drum-shaft and rotate the drum to its opposite position, Fig. 2, when one of the bottles will drop into the groove or recess in its periphery. In this position the inner end of the connecting-rod has passed out of contact with the horizontal part of the locking-latch. The vertical part then drops into its locking position back of the shoulder on the ejector-bar and locks the same against a return movement until the push-bar has traveled back far enough to release the coin, when the inner end of the connecting-rod will again come in contact with the inclined and horizontal parts of the locking-latch and disengage it from the ejector-bar, which will return to its normal position. As the ejector-bar moves back to its normal position the post attached thereto comes in contact with the curved finger, secured to the drum-shaft, and rotates the drum far enough in the opposite direction to drop the bottle into the delivery-chute.

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

1. In a coin-controlled vending-machine, the combination with the inclosing casing, of a supporting-plate, secured therein, a push-bar, an ejector-bar, a connecting-rod, having one end rigidly secured to the push-bar and the other end loosely connected to and moving in a slot in the ejector-bar, an ejecting-drum, and means for forming an operative connection between said ejector-bar and drum, substantially as described.

2. In a coin-controlled vending-machine, the combination with the inclosing casing, of a supporting-plate secured therein and provided with a coin-rest, a push-bar, a spring for returning said bar to its normal position, an ejector-bar, provided with an elongated slot, a connecting-rod, having one end rigidly secured to the push-bar, the opposite end loosely engaging said slot, a locking-latch, consisting of a vertical and a horizontal part, the vertical part being adapted to automatically engage with and momentarily retain the ejector-bar in its innermost position until the corresponding end of the connecting-rod has moved back in contact with and depressed the horizontal part of said latch and disengaged the locking end, substantially as described.

3. In a coin-controlled vending-machine, the combination with a push-bar, an ejector-bar, a rod, joining said bars in an operative connection, a post attached to the inner end of the ejector-bar, a drum, mounted on a

shaft and provided with a groove or recess in the periphery thereof, the fingers, attached at their upper ends to the drum-shaft and extending down on each side of said post, where-
5 by a partial rotation is imparted to said drum first in one direction and then in the other by the movement of the ejector-bar, the merchandise-receptacle, arranged above said drum and adapted to deposit an article held

therein in the groove in said drum, and the 10 delivery-tube, substantially as described.

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

JOHN W. PETERSON.

Witnesses:

L. M. FREEMAN,
L. B. COUPLAND.