

C. V. DEARINGER.
VENDING MACHINE.
APPLICATION FILED MAR. 20, 1915.

1,152,009.

Patented Aug. 31, 1915.

Fig. 1.

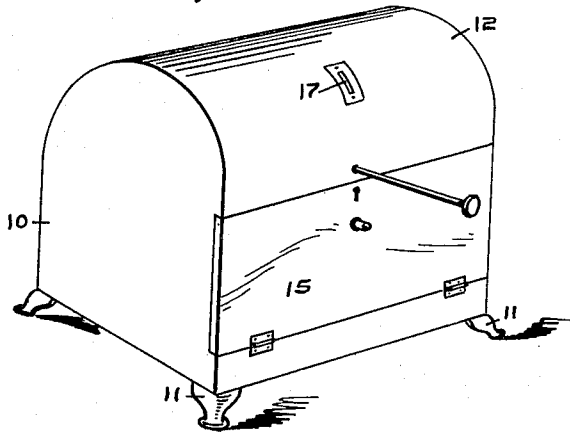


Fig. 2.

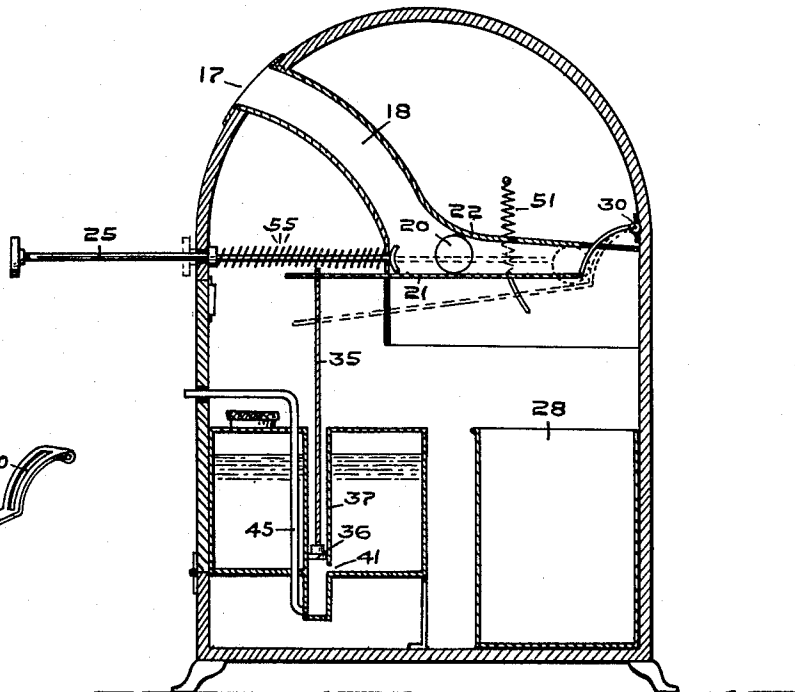
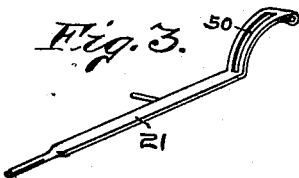


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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VENDING-MACHINE.

1,152,009.

Specification of Letters Patent.

Patented Aug. 31, 1915.

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To all whom it may concern:

Be it known that I, CHESTER V. DEARINGER, a citizen of the United States, residing at Rushville, in the county of Rush and State of Indiana, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to a vending machine, more particularly to that type of a machine for vending liquids from bulks, such as perfumes, etc.

The object of the invention is to provide a vending machine of the above type whereby perfume and similar liquids can be vended in varying amounts, the amount the purchaser is to receive depending upon the diameter of the coin inserted for operating the vending mechanism.

I accomplish the objects of the invention by means of the vending machine illustrated in the accompanying drawings, forming a part hereof, in which—

Figure 1 is a perspective view of my improved vending machine. Fig. 2 is a cross section of the vending machine. Fig. 3 is a perspective view of the runway for the coin.

Referring to the drawings, 10 represents the body of the vending machine which is preferably made rectangular in form and may be supported by suitable legs 11 or may be attached to the wall in any suitable manner. The body 10 is inclosed at the top with the curved cover 12, or may be square if desired. The body 10 is also provided with the door 15 by which access may be had to the interior of the body of the machine.

The body 10 is provided with an opening 17 for the introduction of the coin, and said opening communicates with a coin chute 18 which guides and confines the coin to be subsequently operated upon during its passage toward the coin receiving receptacle. When a coin 20 is inserted into the chute 18 it passes downward through the curved portion of the chute and upon the runway 21 where the coin is caught between the top 22 of the chute 18 and the runway 21. Further progress of the coin by gravity is prevented by the inclination of the top 22 of the chute with respect to the runway 21, but the coin 20 may be forced to travel along said runway by means of a manually operated push-bar 25 which is actuated by the operator from the exterior of the machine. When the push-bar 25 is moved inwardly, as indi-

cated by means of the dotted lines in Fig. 2 of the drawings, the forward end of said push-bar 25 contacts the edge of the coin forcing the latter to travel along the runway 21 toward the discharge opening where the coin is free to drop into the coin receiving receptacle 28. With this enforced travel of the coin along the runway 21 by the action of the push-bar 25 the runway 21 is forced downward to provide additional space between the runway and the top 22 of the chute 18 for the passage of the coin toward the discharge end. The runway 21 is pivoted to the inner face of the top or cover 12 at 30 to allow the opposite end thereof to travel downward under the influence of the forward travel of the coin along the runway 21, as shown by means of the dotted lines in Fig. 2. As the end of the runway 21 is depressed it also depresses a plunger rod 35 having a plunger head 36 secured to its lower end, and this plunger head makes a close working fit within the cylinder 37. The cylinder 37 is surrounded with a well or reservoir 40 for storing the perfume or other liquid to be dispensed. The cylinder 37 and reservoir are connected by means of an orifice 41 which admits the liquid to the cylinder, and the cylinder has an outlet at its bottom which communicates with an outlet hollow tube 45, the latter leading upward and outward to the exterior front side of the machine, so that when the plunger head 36 is depressed, through the action of the runway 21 being acted upon by the coin, an amount of the liquid will be ejected from the end of the tube 45 as is displaced from the cylinder 37 by the travel of the plunger head 36 within said cylinder. When the coin 20 has traveled the length of the runway 21 it passes through the discharge slot 50 (see Fig. 3) and drops into the coin receiving receptacle 28. As soon as the coin is free from the runway 21 the latter is returned to its normal position by means of the spring 51, and as the pressure is released from the push-bar 25 the bar is returned to its normal position by means of the spring 55.

By means of the above mechanism it will be noted that the throw of the runway and the plunger rod 35 is regulated by the diameter of the coin inserted into the chute 18, so that if one cent in coin is inserted into the machine the plunger head 36 will not be depressed to an extent that it would be in

case five cents in coin were inserted, for the reason that one coin has a greater diameter than the other, so that in one case a larger amount of the liquid is dispensed than in the other.

The operation is as follows: The operator stands directly in front of the discharge end of the hollow discharge tube 45 so that the liquid to be discharged from the machine will be sprayed upon the operator's clothes. A coin is then inserted into the coin chute 18 and the push-bar 25 is shoved inward to its extent of travel, which movement of the bar forces the coin forward and the runway 21 and the plunger rod 35 downward within the cylinder 37, causing a corresponding displacement of liquid from the cylinder to the amount of travel accorded the plunger head 36. The amount of liquid displaced from the cylinder 37 is forced out through the discharge tube 45 upon the operator's clothes.

While I have described my invention with more or less minuteness as regards details of construction and arrangement and as being embodied in certain precise forms, I do not desire to be limited thereto unduly or any more than is pointed out in the claims. On the contrary, I contemplate all proper changes in form, construction and arrangement, the omission of immaterial elements, and the substitution of equivalents as circumstances may suggest or necessity render expedient.

I claim:

1. A vending machine of the above class including a receptacle for holding the liquid to be dispensed, a cylinder having an orifice communicating with said receptacle for admitting the liquid to said cylinder, an outlet tube communicating with the lower end of said cylinder and discharging at a point above the top of the receptacle, a plunger-head working within said cylinder, a coin runway for supporting the coin in its passage toward the discharge end, said runway being depressed by the enforced movement of the coin for depressing said plunger-head in said cylinder, a push-means for

forcing the coin to travel along said coin runway, and means for returning said push-means to normal when the pressure is removed.

2. A vending machine of the above class including a receptacle for holding the liquid to be dispensed, a cylinder having an orifice communicating with said receptacle for admitting the liquid to said cylinder, an outlet tube communicating with the lower end of said cylinder and discharging at a point above the top of the receptacle, a plunger-head working within said cylinder, and a coin runway for supporting the coin in its passage toward the discharge end, said runway susceptible of being depressed varying distances according to the varying diameters of the coins for imparting corresponding distances of travel to said plunger head.

3. A vending machine of the above class including the body, a receptacle within said body for holding the liquid to be dispensed, a cylinder having an orifice communicating with said receptacle, a plunger-head working within said cylinder for ejecting the liquid, a plunger-rod for mounting said head, an outlet tube communicating with the lower end of said cylinder and discharging at a point above the top of the receptacle, a coin supporting runway for supporting the coin in its passage toward the discharge end, said runway being provided with a coin discharge slot, means for pivotally securing one end of said runway, means for manually forcing the coin to travel along said runway, means for operatively connecting the runway and plunger-rod together, and means for returning all the parts to normal position after the discharge of the coin.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this 13th day of March, A. D. one thousand nine hundred and fifteen.

CHESTER V. DEARINGER. [L. S.]

Witnesses:

F. W. WOERNER,
J. A. MINTURN.