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F. F. DAVIDSON & C. P. STRITE.

VENDING MACHINE.

APPLICATION FILED DEC. 1, 1903.

NO MODEL.

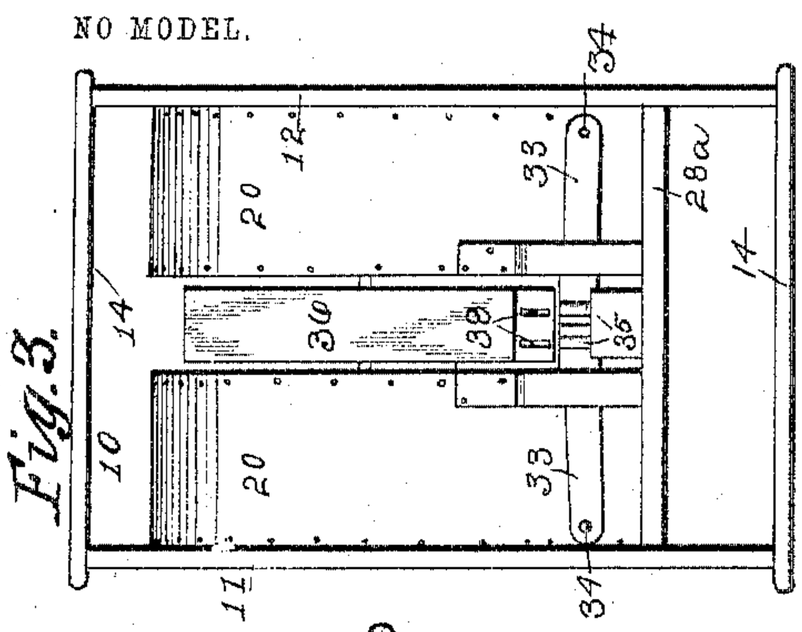


Fig. 3.

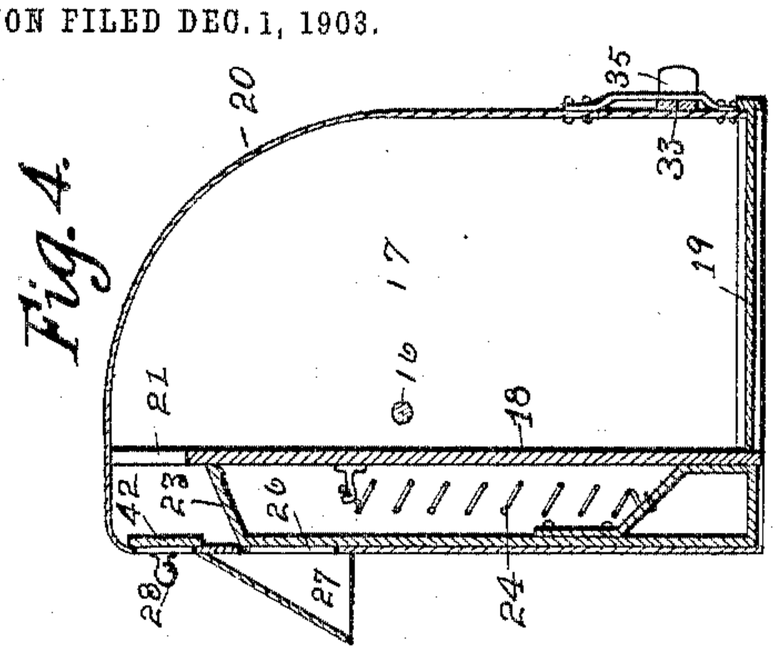


Fig. 4.

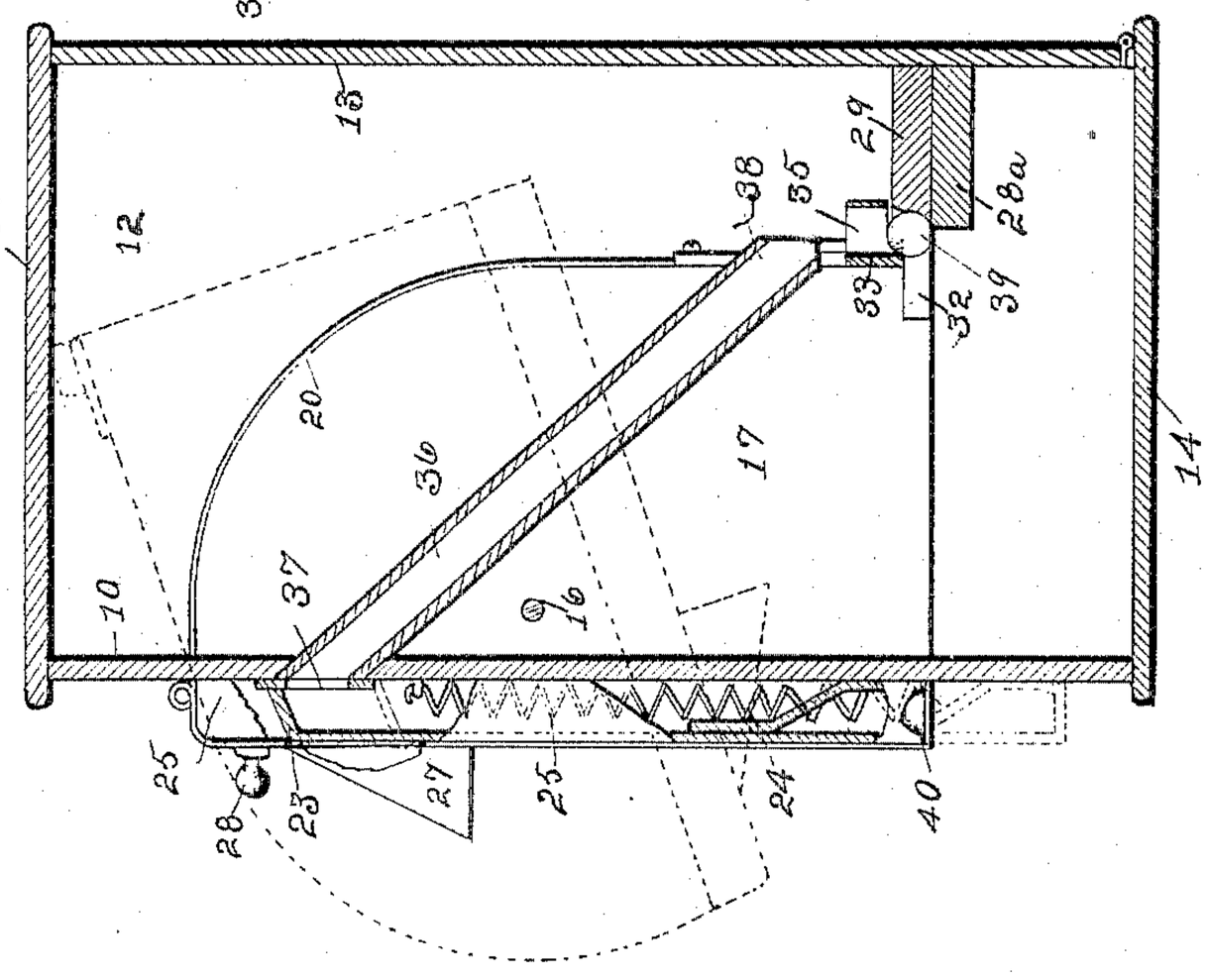


Fig. 2.

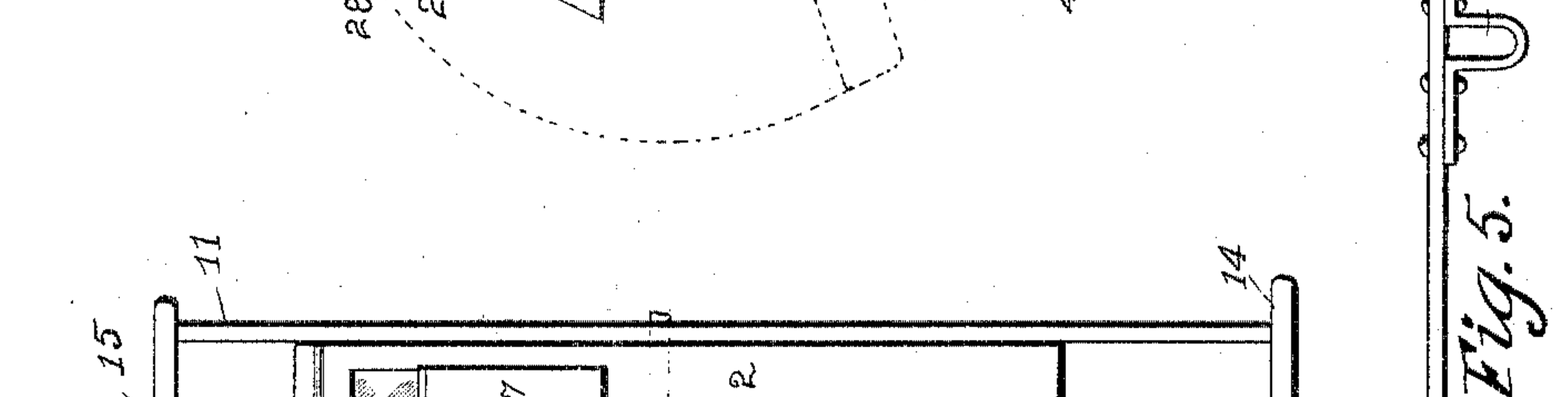


Fig. 1.

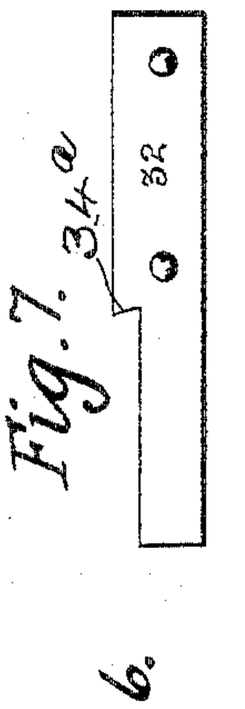


Fig. 6.

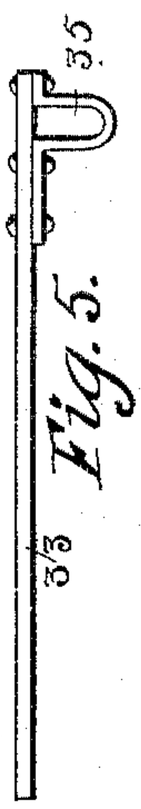


Fig. 5.

Witnesses.

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No. 777,404. Patented December 13, 1904.

# UNITED STATES PATENT OFFICE.

FRANK F. DAVIDSON AND CHARLES P. STRITE, OF TAMA, IOWA.

## VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 777,404, dated December 13, 1904.

Application filed December 1, 1903. Serial No. 183,416. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK F. DAVIDSON and CHARLES P. STRITE, citizens of the United States, residing at Tama, in the county of Tama and State of Iowa, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

The objects of our invention are to provide a vending-machine for peanuts, candies, and similar articles which is of simple, durable, and inexpensive construction and the mechanism of which is maintained in a locked position until released by the operator in moving the upper portion of the delivery-box forward, thus causing the locking-lever to act on the coin and release said locking-levers.

A further object is to provide a device of this class which can be easily and readily operated and the parts of which will not easily get out of repair.

A further object is to provide a vending-machine in which there can be as many delivering mechanisms as is desired by the operator, and thus various kinds of articles can be sold by my machine.

A further object is to provide a mechanism from which the coin will drop onto the interior of the box for containing my delivering mechanism as soon as the coin has performed its function and released the locking-lever, and thus prevent the coin from being removed after it has performed its function.

A further object is to provide a vending-machine which will not be easily clogged and the parts of which are easily taken apart to adjust or mend if broken.

Our invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in our claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows an elevation of the complete machine. Fig. 2 is a vertical sectional view of the machine cut on the line 2 2 of Fig. 1. Fig. 3 is a rear elevation of the device with the back removed. Fig. 4 is a vertical sectional view of one of the delivery-boxes. Fig. 5 is a plan view of the coin-controlling lever for maintaining in a closed position the delivery-box. Fig. 6 is a top view of the device in which the coin rests when the locking-lever is released by it, and Fig. 7 is a side elevation of the device described in Fig. 6.

Referring to the accompanying drawings, we have used the reference-numeral 10 to indicate the front portion of the box, the reference-numerals 11 and 12 to indicate the sides of the box, and the reference-numeral 13 to indicate the back of the box. In the front portion 10 there are two or more openings in which the front of the delivery-box is designed to be maintained. The back 13 of the box is hinged to the bottom and is designed to be swung on said hinges to obtain access to the interior of the box for the purpose of refilling the receptacle in which an article to be vended is placed and also for the purpose of removing the coin. There is a portion 15, which forms the top of the box, extending transversely of the box, and mounted in the sides 11 and 12 is a shaft 16, upon which any number of the delivery-receptacles 17 are rotatably mounted. Each of the delivery-receptacles is constructed as follows: the front portion 18, a bottom portion 19 at right angles to the front portion 18, and a back portion 20, which is substantially semicircular in shape and which forms the back and top of the delivery-receptacle. Between the upper part of the portion 20 and the front 18 is an opening 21, designed to allow the substance on the interior of the receptacle 17 to flow through the opening 21 when the receptacle 17 is tilted forward in the position shown in dotted lines in Fig. 2.

Attached to the front of the receptacle 17 and extending vertically of it is a chute 22, said chute being attached near one side of the front of the receptacle 17 and outside of the opening 21, so that when the receptacle is in the position shown in dotted lines in Fig. 2 the substance on the interior of the receptacle will flow through the opening 21 and into this chute. Mounted in the chute 22 is a slide 23, designed to be normally held at its upper limit of movement by means of the spring 24, which is also mounted on the interior of the

chute. Said slide is so arranged that an opening 25 is formed between the upper portion of the chute and the upper portion of the slide 23, said opening being immediately in front of the opening 21. The size of this opening 25 determines the amount of substance which is to be delivered by the use of a single coin. In the front of the chute 22 is an opening 26, through which the substance is moved downwardly toward its lower limit of movement. When the slide 23 is at its upper limit of movement in the chute 22, the opening 26 is normally closed by said slide, and thus the substance which is to flow from the receptacle 17 into the opening 25 will be maintained in said opening until the slide 23 is moved downwardly, thus allowing the substance to pass through the opening 26. Outside of the opening 26 and extending outwardly and downwardly from its upper portion is a chute 27, beneath which the person operating the device is to place his hand or the receptacle into which the substance to be delivered is to be contained.

Attached to the front of each of the receptacles 17 is a handle 28, designed to be used in swinging said receptacles on the shaft 16.

Extending across the rear portion of the box and between the sides 11 and 12 is a bar 28[a], upon which the slotted device for maintaining the coin in position is mounted. This device we have indicated by the numeral 29. The device 29, which is attached to the upper portion of the bar 28[a], extends forwardly a slight distance from it and has the portions 30 and 31 cut away therefrom, said cut-away portions being of sufficient width to receive the coin. Attached to each side of the device 29 is a plate 32, thus forming the openings between the plates and the portion 29, as shown clearly in Fig. 6 of the drawings, said openings being designated by the numerals 30 and 31, which also represent the cut-away portions of the device 29. The openings 30 and 31 are directly beneath the extreme inner lower portion of the bottom 19 of the receptacle 17 and between each pair of the receptacles 17. Each of the plates 32 are cut away to form the projection 34[a], against which the locking-lever is designed to normally rest when at its lower limit of movement, and thus maintain said locking-lever against rearward movement until it is raised upwardly a slight distance, as is hereinafter more fully described.

Pivotally attached to the rear portion of the receptacles 17 and on the outside of them is a locking-lever 33, said locking-lever extending from its point of attachment toward the device 29 and having its end which is away from the pivot 34 resting on the plate 32 nearest it and against the projection 34[a]. Extending inwardly from the free end of each of the levers 33 and on its back side are the coin-guides 35, which are designed to be immediately above the slots 30 and 31.

Extending from the front 10 of the box and between the receptacles 17 are the inclined guides 36, having an opening 37 in their upper ends and an opening 38 at their lower ends. The lower ends of these guides 36 are immediately above the guides 35 when the receptacle 17 is in its closed position, so that by placing a coin in one of the slots 37 the coin will pass through the guide 36 and into the guide 35 and thence into either of the slots 30 and 31, depending upon which opening 37 the coin has been placed in, and it will take the position shown in Fig. 2 of the drawings, the coin in this view being indicated by the numeral 39. The back side of the lever 33 will engage the coin 39 and will maintain it in position in the slot 30 or 31. Then as the operator grasps the handle 28 and swings the receptacle on the shaft 16 the lever will pass over the upper portion of the coin 39, which will cause the lever to be thrown out of engagement with the plate 32 and the projection 34[a], and thus allow the receptacle to be thrown into the position shown in Fig. 2 of the drawings in dotted lines. The substance contained in the receptacle 17 when it is in this tilted position will pass through the opening 21 and into the opening above the slide 23, where it will be maintained until the receptacle 17 has been moved to its normal and closed position. As soon as the receptacle is in its closed position the operator places his finger or thumb on the thumb-piece 40, which is connected with the slide 23, and pulls said slide 23 downwardly in the chute 22, thus allowing the substance contained in the opening 25 to pass through the chute 27 into the hand of the operator or into some receptacle provided for that purpose. As soon as the opening 25 has been cleared of the substance contained therein the spring 24 will force the slide to its upper limit of movement, and thus close the opening 26. As the receptacle is moved to its closed position from its open position the locking-lever 33 will move to its normal and locked position. Thus as soon as the substance has been delivered through the chute 27 the device is in readiness for further use.

In the front of each of the receptacles 17 we have placed a piece of glass 41, which is designed to enable the person manipulating the device to ascertain the amount contained in the receptacle. We have also provided a small piece of glass 42 in the upper portion of each of the chutes 22, so that the person purchasing the goods can ascertain whether or not the substance contained in the opening 25 has been delivered to him. The bottom 19 of each of the receptacles 17 is slidingly mounted, so that it can be easily removed to fill or empty the substance contained therein.

In practical operation the person desiring to obtain the substance on the interior of our device can readily ascertain what the substance

is by glancing through the glass 41 in the front of said receptacle. He then places his coin in one of the slots 37 and pulls the upper portion of the receptacle 17 forward and allows the substance to pass into the opening 25, which it will do when the receptacle is in the position shown in dotted lines in Fig. 2. As soon as this opening 25 in the receptacle is tilted back to a closed position and the operator places his thumb upon the thumb-piece and allows the substance to be dropped into his hand by moving said thumb-piece downwardly the substance will flow from the opening 25 through the opening 26 and out through the chute 27.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a vending-machine, a pivotally-mounted receptacle, a chute attached to the front of said receptacle, said receptacle having an opening extending from it into the chute, said chute having an opening in it, means for controlling the opening in the chute, said means also forming a measuring device with the upper portion of the chute, for the purposes stated.

2. In a vending-machine, a box, a receptacle pivotally mounted in said box, a measuring device attached to the front of said receptacle and communicating with it, and a slide for controlling the outlet of said measuring device.

3. In a vending-machine, a box, a receptacle pivotally mounted in said box, a measuring device attached to the front of said receptacle and communicating with it, a slide for controlling the outlet of said measuring device and a locking mechanism for retaining the receptacle in a closed position, for the purposes stated.

4. In a vending-machine, the combination of a pivotally-mounted receptacle having an opening in its upper portion, a chute mounted outside of said opening and attached to the front of said receptacle having an opening in its front portion and some distance below the opening in the front of the receptacle, a spring-controlled slide mounted in said chute and designed to close the opening in the front of the chute, thus forming a measuring device in the chute and above said slide, said slide being so arranged as to be accessible from the exterior of the chute, for the purposes stated.

5. In a vending-machine, the combination of a pivotally-mounted receptacle having an opening in its upper portion, a chute mounted outside of said opening and attached to the front of said receptacle having an opening in its front portion and some distance below the opening in the front of the receptacle, a spring-controlled slide mounted in said chute and designed to close the opening in the front of the chute, thus forming a measuring device in the chute and above said slide, said slide being so arranged as to be accessible from the exterior of the chute, and a locking mechanism designed to maintain the receptacle in a vertical position.

6. In a vending-machine, the combination of a pivotally-mounted receptacle having an opening in its upper portion, a chute mounted outside of said opening and attached to the front of said receptacle, having an opening in its front portion and some distance below the opening in the front of the receptacle, a spring-controlled slide mounted in said chute and designed to close the opening in the front of the chute, thus forming a measuring device in the chute and above said slide, said slide being so arranged as to be accessible from the exterior of the chute, a locking-lever attached to the rear of said receptacle, and means for engaging the locking-lever and maintaining it in position.

7. In a vending-machine, a pivotally-mounted receptacle, a locking mechanism for maintaining the receptacle in a closed position, a chute communicating with said receptacle and a slide in said chute for controlling the flow of substance through it.

8. In a vending-machine, a pivotally-mounted receptacle, a locking mechanism for maintaining the receptacle in a closed position, a chute communicating with said receptacle, a spring-actuated slide in said chute for controlling the flow of substance through it.

9. A vending-machine, comprising a pivotally-mounted receptacle, a measuring device attached to and communicating with the receptacle, said receptacle having a delivery-outlet, and means for controlling the delivery-outlet.

10. A vending-machine, comprising a pivotally-mounted receptacle, a measuring device attached to and communicating with the receptacle, said receptacle having a delivery-outlet, means for controlling the delivery-outlet, and means for swinging the receptacle on its pivot.

11. A vending-machine, comprising a pivotally-mounted receptacle, a measuring device attached to and communicating with the receptacle, said receptacle having a delivery-outlet, means for controlling the delivery-outlet, and springingly-controlled means for closing the delivery-outlet.

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