March 6, 1945. N. MICHELINI 2,370,743

VENDING DEVICE

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Fig. 5.

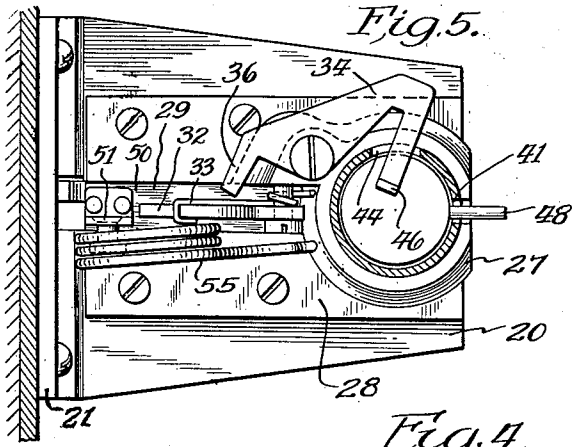


Fig. 4.

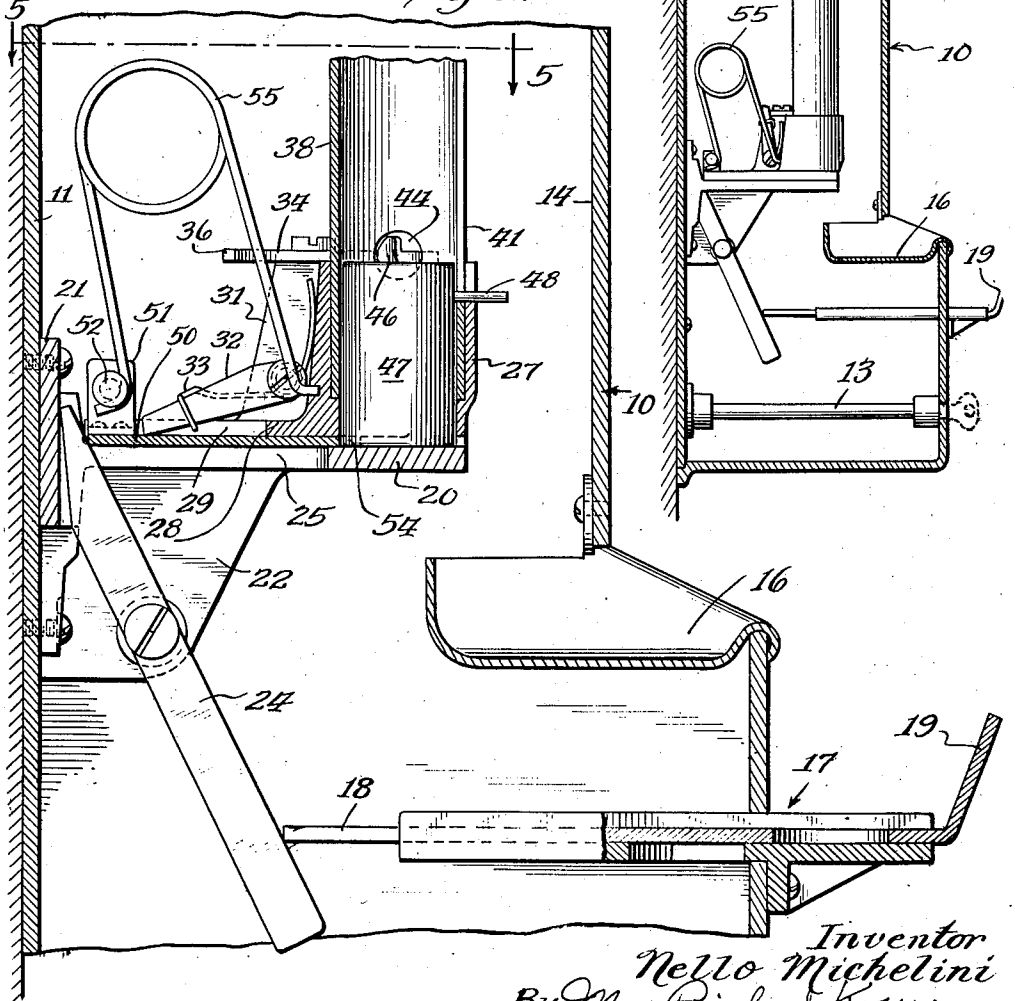


Fig. 1.

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Fig. 2.

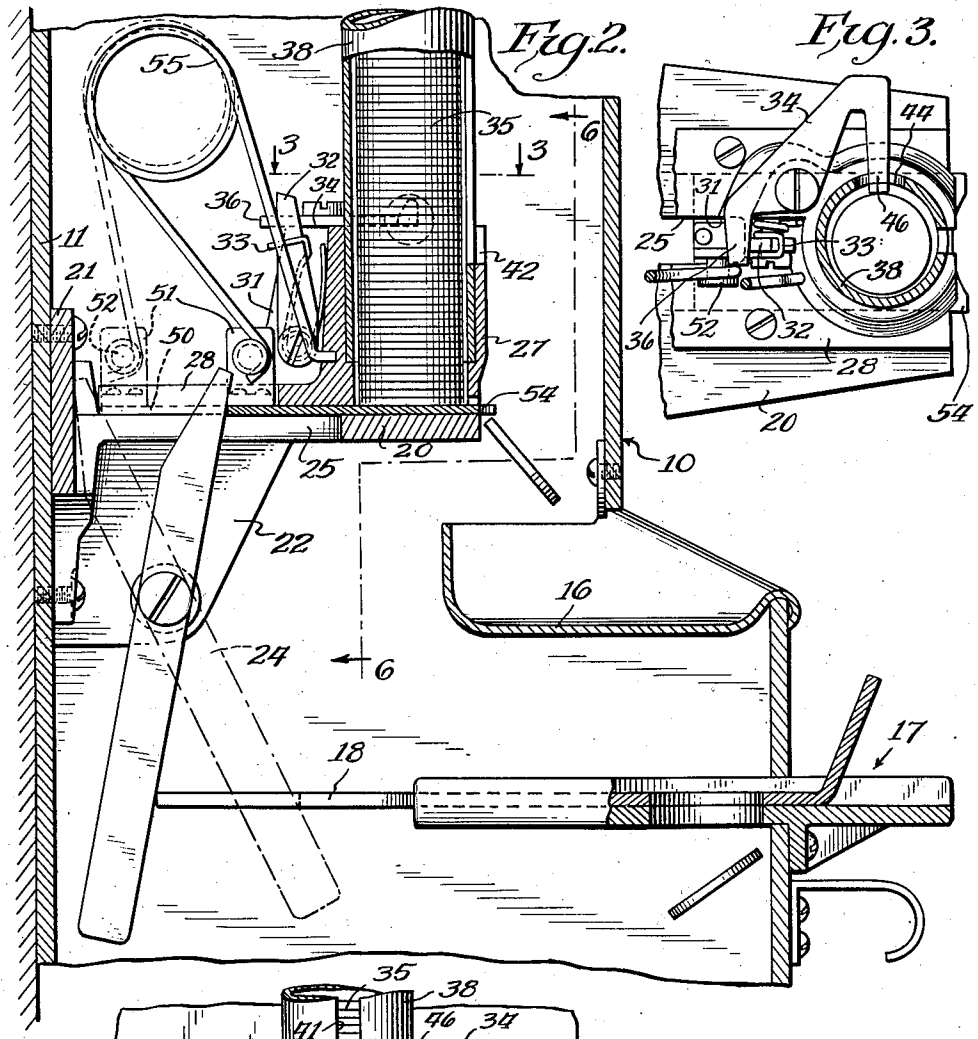


Fig. 3.

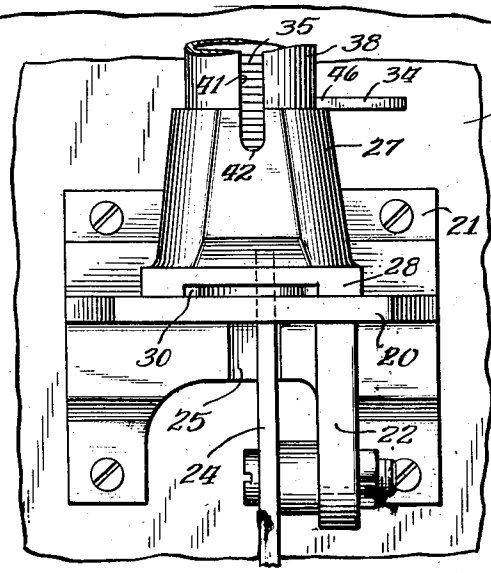


Fig. 6.

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Patented Mar. 6, 1945 2,370,743

UNITED STATES PATENT OFFICE

2,370,743

VENDING DEVICE

Nello Michelini, Chicago, Ill.

Application March 31, 1941, Serial No. 386,070

1 Claim. (Cl. 312—55)

This invention relates to a vending device and more particularly to a coin controlled device adapted to dispense telephone slugs or the like.

One of the objects of this invention is the provision of a device of the character described which is operable, after a coin of given value has been deposited in the device, to discharge a telephone slug or the like.

Another object of this invention is the provision, in a device of the character described, of means automatically operable when the supply of telephone slugs is exhausted to prevent the receipt of coins until the device has been refilled.

A further object of this invention is the provision of a device of the character described which is simple in construction, efficient in operation and economical of manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts, as hereinafter more specifically described and illustrated in the accompanying drawings wherein is shown a device in accordance with this invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the appended claim.

Fig. 1 is a vertical section of a vending device embodying my invention.

Fig. 2 is an enlarged fragmentary vertical section of the device showing the relative positions of the parts in the operation of ejecting a telephone slug.

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary vertical section of the device showing the mechanism locked against further operation, as when the supply of slugs is exhausted.

Fig. 5 is a cross sectional view taken on line 5—5 of Fig. 4.

Fig. 6 is a fragmentary elevational view looking in the direction of the arrows 6—6 of Fig. 2.

Referring to the drawings wherein is shown a preferred embodiment of my invention, the numeral 10 indicates a housing in which my improved mechanism is contained. The housing is removably supported on a backing member 11 and is provided with key operated locking means 13 adapted to lock the housing to the backing member to prevent unauthorized removal therefrom. The front wall 14 is provided with a vending opening and a tray 16 to which the telephone slugs are delivered and from which they may be removed by the depositor of the coin.

The specific coin receiving means, indicated generally by the numeral 17, does not form a part of my present invention, since any suitable means may be employed for receiving the coins, it being only essential to my present invention that the coin receiving slide 18 shall operate by a back and forth movement to actuate the delivery mechanism presently to be described.

The delivery mechanism is shown as comprising a base member 20 provided with a flange portion 21 having screw holes for receiving screws which secure the base member 20 to the backing member 11. A depending ear 22 is integrally formed with the base member 20 and an actuating arm 24 is pivoted thereto. A central slot 25 is formed in the base member and flange portion and is arranged to accommodate the upper portion of the actuating arm in its pivotal movement.

Mounted on the base member 20 is a tubular section 27 having a base portion 28 extending at right angles to the vertical axis thereof. A slot 29 is formed in the base portion and is alined with the slot 25 of the base member to accommodate the actuating arm 24. Formed in the underside of the base portion and extending the full length thereof is a channel 30 having dimensions such that a telephone slug of conventional size may easily pass through. A portion of the tubular section 27 is enlarged to provide a vertical surface 31 alined with one edge of the slot 29. A dog 32 is pivoted to the vertical surface 31 and is arranged to register in the slots 25 and 29, a spring 33 being provided for normally urging the said dog in said slots.

A trigger 34, shaped substantially as shown in the Figures 3 and 5, is swivelly supported on the enlarged portion of the tubular section 27 and is movable about a vertical axis. As seen in Figures 2 and 3 of the drawings, one of the legs 36 of the trigger 34 is adapted to engage the dog 32 and under certain conditions of operation presently to be described to maintain same in a vertical position.

A tubular magazine 38 adapted for holding slugs 35 or the like is fitted into the tubular section 27 and is supported by a bracket 39 secured to the backing member 11. A slot 41 is provided in the magazine 38 and extends substantially the full length thereof, the lower portion of said slot being in registering alinement with a slot 42 formed in the wall of the tubular section 27. An aperture 44 is formed in the magazine 38 and is arranged to accommodate the leg

46 of the member 34 in a manner as will be hereinafter described. A cylindrical plug 47 provided with a projecting pin 48 is received in the tubular magazine 38 with the pin accommodated in the slot 41 and serving as a handle by which the plug may be raised in the magazine. The plug is intended to be placed on the top of the supply of slugs, as shown in Figure 1, and moves downwardly as the slugs are successively delivered and the supply is diminished. The plug is of a height such that when the supply of slugs is exhausted, the top thereof will be slightly below the widest portion of the aperture 44 and will permit the passage therethrough of the leg 46.

An ejector member 50 having at one end an upstanding ear 51 provided with a laterally projecting pin 52 is arranged for sliding movement in the channel 30 with the ear accommodated in the slot 29. The length of the ejector member 50 is such that its other end 54 is in registering alinement with the interior wall of the tubular section 27. A coil spring 55 having extended terminal portions engageable with the projecting pin 52 and the wall of the tubular section 27 serves to maintain the ejector member 50 in the non-operative position shown by the dotted lines in Figure 2. As is seen in the drawings, the upper portion of the arm 24 is engageable with the end of the ejector member 50 and is adapted to move same in the channel 30 against the tension of the spring 55 to eject a slug through the mouth of the channel.

Assuming that the supply of telephone slugs has been exhausted and that the supply is to be replenished, the housing 10 is removed from the backing member 11 by unlocking the locking means 13. The dog 32 is raised to vertical position, as shown in Figure 2 and the trigger 34 is moved to the position shown in Figure 3 in engagement with the dog. The dog is thereby held in non-operative position, the spring 33, however, urging the dog 32 downwardly and tending to move the trigger 34 in a clockwise direction. It will be seen in Figure 3 that the leg 46 of the member 34 is just at the aperture 44 of the magazine 38. In this position slugs are introduced in the magazine and, as will be apparent, the leg 46 is prevented by the presence of the slugs from entering through the aperture 44 into the interior of the magazine.

When the housing is replaced and locked in position, the device is in condition for operation. Upon the depositing of a coin in the slide 18, the slide is moved to the left by the handle portion 19, as viewed in Figure 2. The slide 18 being in engagement with the arm 24 at the end of its stroke moves the arm from dotted line to full line position (Figure 2). The upper portion of the arm 24 which is in engagement with the ejector member 50 moves the ejector member against the tension of the spring 55 to the right, from dotted line to full line position. The ejector member 50 is in contact with the lowermost slug of the magazine 38 and in its movement pushes the slug through the mouth of the channel 30 into the hopper 16. Slugs are thus successively delivered upon successive deposits of coins in the slide mechanism. Upon delivery of the slug, the slide 18 is released and the tension of the spring 55 causes the slide to return to normal position for subsequent operation.

When the supply of slugs is exhausted or when the top of the plug 47 in the magazine 38 reaches a point below the aperture 44 in the magazine, the leg 46 of the trigger 34 is caused to enter through the aperture 44 into the interior of the magazine. This causes the release of the dog 32 which drops to the position shown in Figure 4 and which acts as a stop, preventing further actuation of the ejector 50 until the dog 32 is moved back to vertical position.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of my invention or the scope of the appended claim.

I claim:

In a dispensing device of the character described, a base member having thereon a tubular section having a channel therein, a tubular magazine supported in said section in alinement with said channel and adapted to accommodate a stack of slugs or similar articles, said magazine having an aperture therein near the bottom portion thereof, an ejector member slidable in said channel and of such proportions that one end thereof will engage only the lowermost slug in said magazine, said ejector member normally being maintained by spring means in non-operative position wherein the slug engaging end is alined with the wall of said magazine, an actuating arm pivotally mounted and engageable at one end with said ejector member, said arm when actuated adapted to slide said ejector member into engagement with the lowermost slug to eject said slug from the magazine, a trigger member movable about a vertical axis and in the horizontal plane of said aperture, said trigger member having two projecting legs, one of which is adapted to enter said aperture when the supply of slugs falls below the level thereof, a dog pivotly mounted and retained in a substantially vertical position by the other leg of said trigger member when said first mentioned leg is prevented from entering through said aperture in the magazine by the presence of slugs therein, but when the supply of slugs falls below the level of said aperture, the said first mentioned leg being caused to swing into said aperture and to release said dog which is urged by spring means to engage said ejector member thereby preventing the actuation thereof by said pivoted arm.

NELLO MICHELINI.