

R. O. LENZ.
 COIN CONTROLLED VENDING MACHINE.
 APPLICATION FILED FEB. 17, 1912.

1,039,970.

Patented Oct. 1, 1912.

Fig. 1.

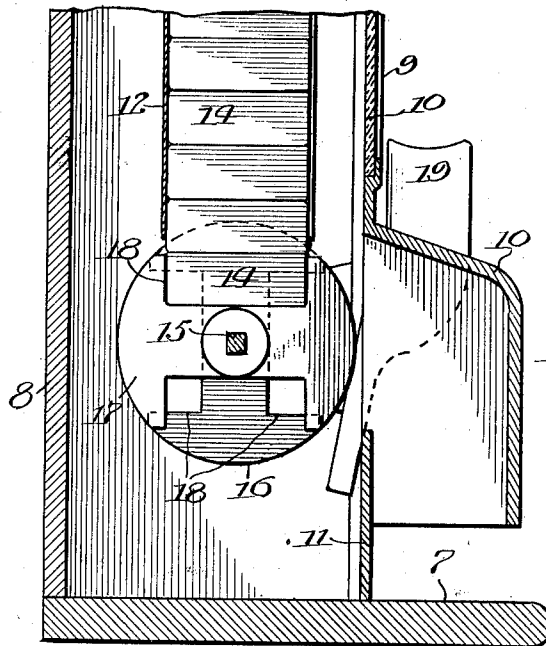


Fig. 5.

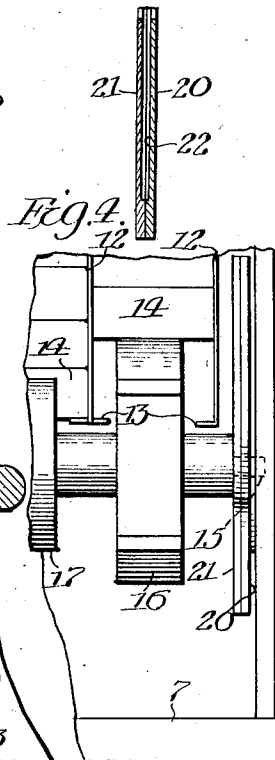


Fig. 2.

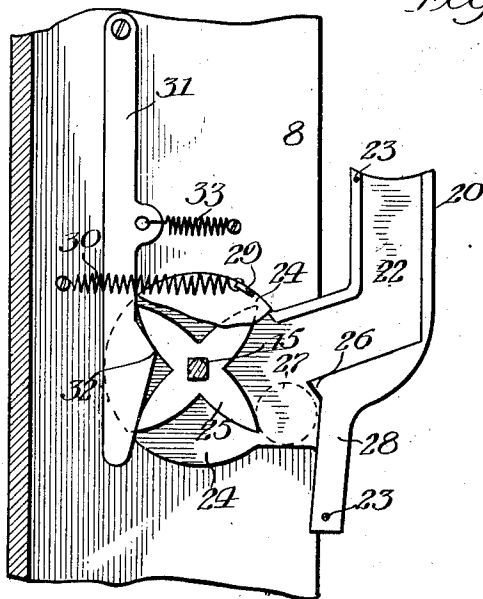
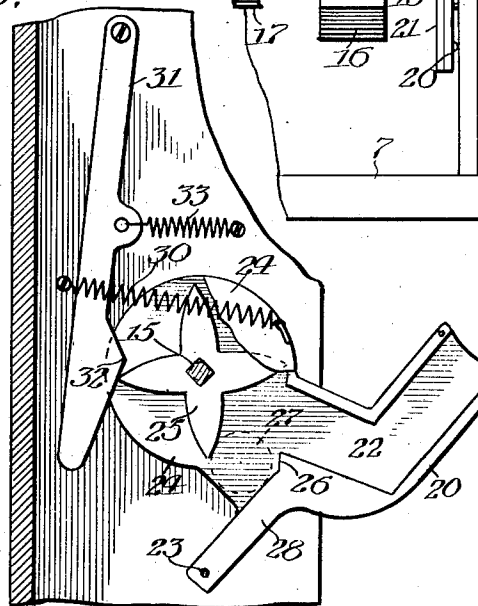


Fig. 3.



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UNITED STATES PATENT OFFICE.

RUDOLPH O. LENZ, OF CHICAGO, ILLINOIS, ASSIGNOR TO ILLINOIS VENDING COMPANY,
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COIN-CONTROLLED VENDING-MACHINE.

1,039,970.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RUDOLPH O. LENZ, 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, of which the following is a specification.

This invention relates to certain new and useful improvements in that type of vending machines, in which the delivery of the article or articles is controlled by the deposit of coins one at a time, and while it is more especially intended for use in machines used for dispensing and vending boxes from machines, yet it is applicable to machines for vending other articles, and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention, is to provide a coin controlled vending machine, which shall be compact in form, simple and inexpensive in construction, strong, durable and efficient in operation, and so made that the coin receiving chute shall, in conjunction with a coin, be adapted to act for the purpose of delivering or dispensing the articles to be sold, and in such a manner, that without the insertion of a coin of the required size, within the coin receiving chute, the latter will have no operative connection with the delivery apparatus of the device.

A further object of the invention, is to simplify, cheapen, and to improve the general efficiency of vending machines.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which the invention pertains, to make and use the same, I will now proceed to describe it referring to the accompanying drawing in which—

Figure 1, is a vertical side sectional view through a portion of a vending machine embodying the invention, showing one of the delivery wheels loaded, and the parts in their positions ready for the reception of a coin necessary to cause the operation of the device and the delivery of a package. Fig. 2, is a view in side elevation of the coin controlled mechanism of the device, illustrating the parts in their normal positions

and showing a coin in the position it will assume when dropped into the coin receiving chute and ready to cause contact between said chute and the pointed wheel of the delivery mechanism. Fig. 3, is a similar view of like parts but showing the position the parts will assume just before the article is delivered. Fig. 4, is a front view of a portion of the machine with the housing or front plate thereof removed, and illustrating one of the delivery wheels as being loaded and ready for the delivery of a package, and Fig. 5, is a vertical sectional view of a portion of the coin receiving chute.

Like numerals of reference refer to corresponding parts throughout the different views of the drawing.

The reference numeral 7, designates the base of the machine on which is vertically mounted a casing 8, which may be of any suitable size, form and material, but preferably rectangular in cross section, and of wood. This casing preferably has forming its front portion a face plate 9, which is provided in its upper portion with a pane of glass 10, through which the contents of the casing may be seen, and the lower portion of the face plate 9, is provided with a downwardly and forwardly extended housing 10, which is open at its bottom, and terminates a slight distance above the front part of the base 7, as is clearly shown in Fig. 1, of the drawing. The lower portion of the face plate 9, is provided inwardly of the outer portion of the housing 10, with a partition or portion 11, which terminates at its upper edge a considerable distance below the upper part of the housing 10, so as to leave a space through which the articles vended may be delivered on to the front part of the base 7, of the machine.

Located vertically in the casing 8, are a number of guideways 12, two of which only in the present instance are shown. Each of the guideways 12, is provided at its lower end with horizontally and inwardly extended flanges 13, on which the packages 14, such as boxes of matches, may rest when stacked in the guideways 12, and when the delivery wheels of the device are in certain positions, as will be presently explained.

Transversely and horizontally journaled in the sides of the casing 8, at a suitable distance below the upper portion of the housing 10, is a shaft 15, on which are rigidly mounted

ed delivery wheels 16, and 17, each of which is provided with diametrically disposed recesses 18, of sizes to receive a box of matches or one of the packages to be sold. The wheels 16, and 17, are so mounted on the shaft 15, that the recesses 18, of one of said wheels will be disposed at right angles to the recesses of the other wheel, and as the said wheels are located under different guideways 12, it is apparent that the recesses of said wheels will alternately receive a box or package 14, and that when turned said wheels will alternately support on their rounded surfaces the remainder of each stack of boxes or packages.

Loosely mounted on the shaft 15, near one end thereof is the coin receiving chute and operating lever, which is designated as a whole, by the reference numeral 19, and this chute and lever is composed of two pieces 20, and 21, each having on its inner surface a channel 22, so that when said pieces are secured together which may be done by means of rivets 23, the said channels 22, will aline with one another and form a chute for the guidance of the coins. Each of the pieces 20, and 21, of the chute and lever is provided at the lower end of its channel 22, with a circular plate 24, which are spaced from one another, and each is provided with a central opening to receive the shaft 15, on which they are rotatably mounted.

Located between the portions or plates 24, of the chute and rigidly mounted on the shaft 15, is a pointed or pronged wheel 25, which prongs are lanceolar in shape, or tapered toward their free ends, as shown. One of the members of the chute 19, for instance, the one indicated by the reference numeral 20, is provided at the lower edge of the inner end of its channel 22, with an angular shoulder 26, between which shoulder and one of the prongs of the wheel 25, the coins 27, when deposited in the chute 19, will pass until they contact with the downward extensions 28, or arms, with which each of the members 20, and 21, of the chute 19, is provided.

Connected at one of its ends to a lug or projection 29, on one of the plates 24, of one of the members of the chute 19, is a spring 30, which is connected at its other end to one side of the casing 8, of the machine, and said spring is employed to retract the chute from its depressed position, to its normal position.

Pivotaly connected at its upper end to the side of the casing 8, adjacent to the chute 19, is a depending dog 31, which has on its lower portion and edge adjacent to the wheel 25, an angular or beveled portion 32, to co-act with the prongs of said wheel.

Connected at one of its ends to the dog

31, is a spring 33, which has its other end connected to that side of the casing 8, adjacent to the said chute, which spring serves to hold the dog 31, in contact with the prong wheel 25, yet in such a manner as to allow it to yield outwardly or from said wheel when pressed by the prongs thereof. The lower portion of the dog 31, or that part thereof having the beveled portion 32, is located between the rear portions of the plates 24, of the chute, which plates are separated at said points for this purpose.

From the foregoing and by reference to the drawing, it will be readily understood and clearly seen, that, assuming the parts to be in the positions shown in Figs. 1, and 2, of the drawings and that a coin 27, shall have been placed in the upper end of the chute 19, it is apparent that said coin will pass through the channel 22, and between the shoulder 26, and one of the arms of the wheel 25, in which position it will be maintained by reason of its contact with the arms 28, of the chute and one of the prongs of said wheel. By turning the chute and operating lever 19, downwardly from the position shown in Figs. 1, and 2, it is evident that the wheel 25, will be rotated so that the prong thereof in contact with the dog 31, below the beveled or angled portion 32, thereof, thus causing the parts to assume about the positions shown in Fig. 3, of the drawing, when by further depressing the chute and lever 19, it is obvious that the arm of the wheel 25, in contact with the dog 31, will pass above the angular or beveled portion 32, of said dog, when by reason of the action of the spring 33, it will be drawn inwardly to the position shown in Fig. 2, in which operation the coin will have been released from between the wheel 25, and arms 28, of the chute and allowed to drop to the bottom of the casing of the machine or into a suitable receptacle. As soon as the coin is released the spring 30, will retract the chute and operating lever 19, to its normal position. As the wheel 25, is fixed on the shaft 15, it will be understood that said shaft will be rotated with the wheel, thus causing the delivery wheels 16, and 17, to be rotated and to alternately deliver a package through the opening of the housing 10, and on to the front portion of the base 7, from which it may be removed.

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

In a coin controlled vending machine, the combination with a casing having in its front portion near one of its sides an opening, of a vertically disposed guideway supported in said casing, a shaft transversely journaled below the guideway, means on said shaft to rotate therewith and receive and deliver packages from said guideway, a

spring retracted chute having a passageway for coins and extended forwardly and upwardly through said opening in the casing, said chute having rearwardly extended and spaced apart plates on its lower portion loosely mounted on said shaft and provided at its front lower portion with a downwardly projected extension, said chute also having within its passageway at the upper portion of the last named extension an inwardly extended angular shoulder, a pointed wheel rigidly mounted on said shaft between said plates of the chute, and a spring actuated dog pivotally mounted on the casing and having a beveled or angular portion to project between the rear portion of said plates of the chute and to engage the pointed wheel. 15

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