E. SPIEGEL.

SLOT MACHINE.

APPLICATION FILED MAY 13, 1909.

953,158. Patented Mar. 29, 1910.

Fig. 1

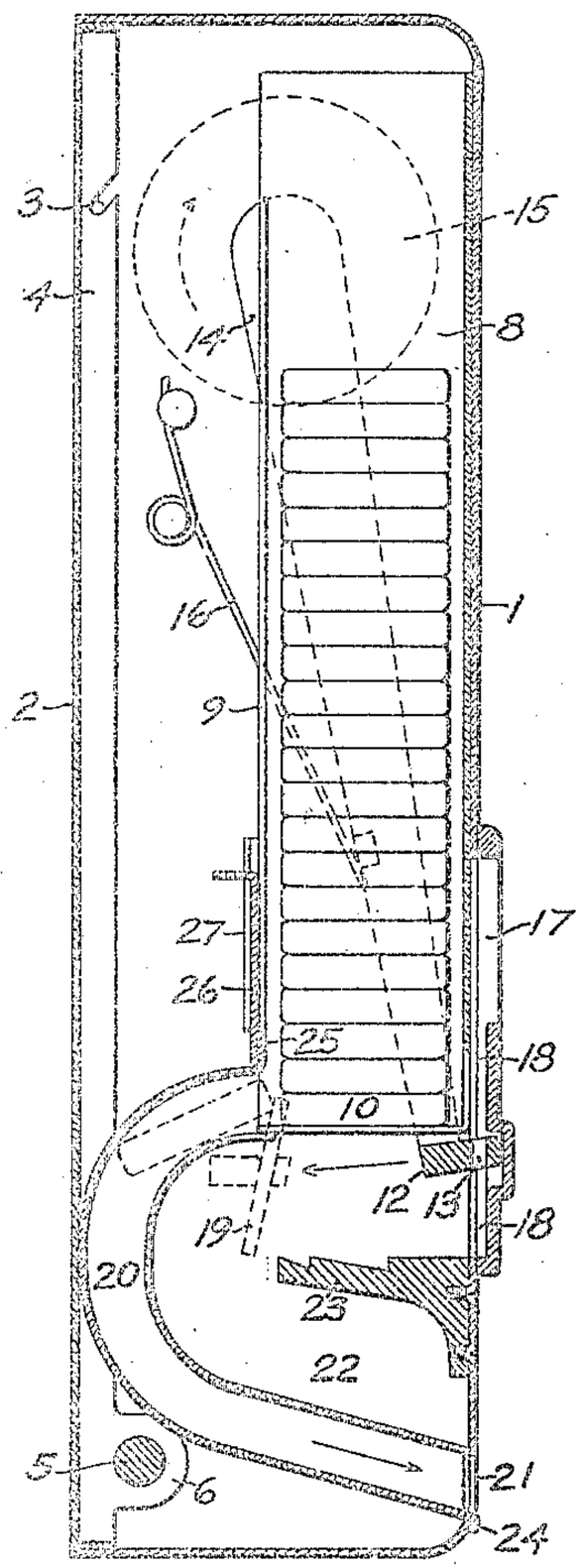
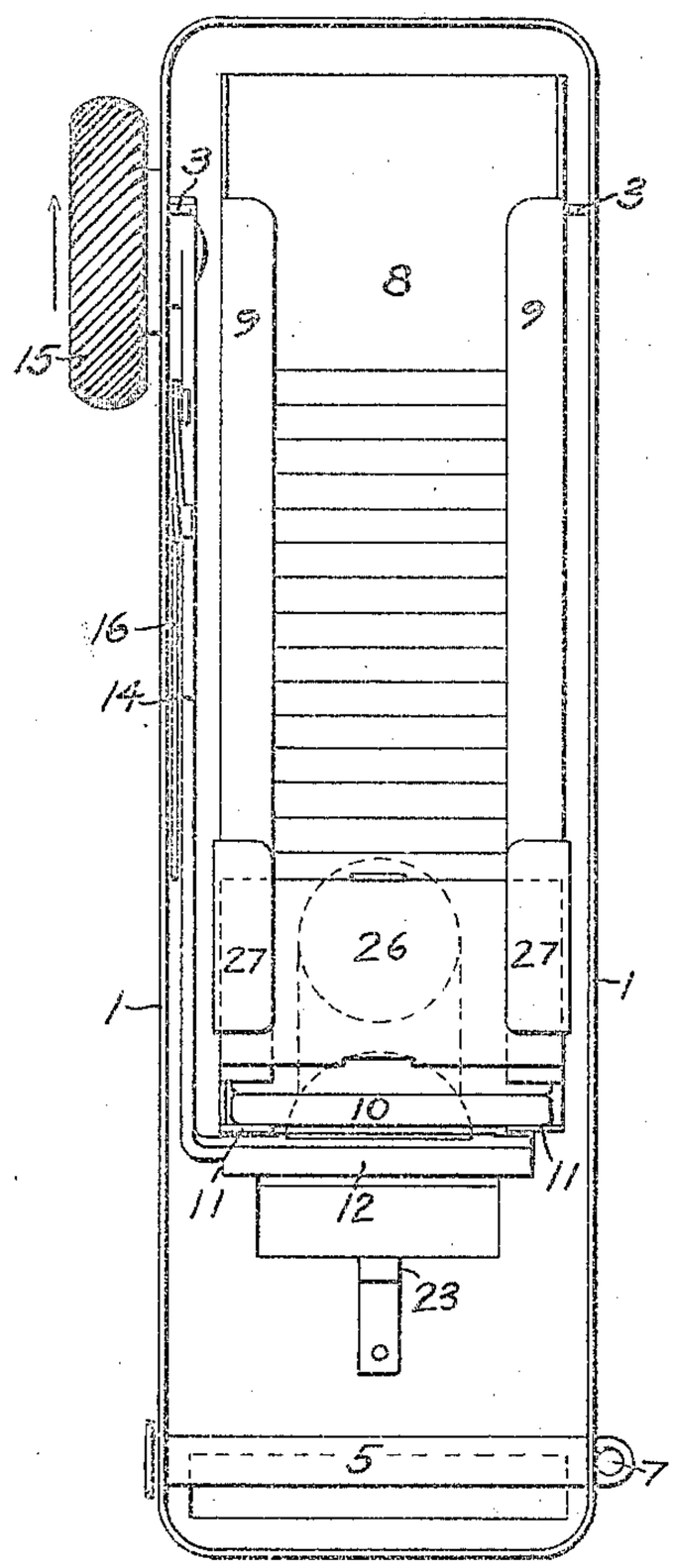


Fig. 2



WITNESSES:

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SLOT-MACHINE.

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To all whom it may concern:

Be it known that I, EDWARD SPIEGEL, a citizen of the United States, residing at New York city, county and State of New York, have invented new and useful Improvements in Slot-Machines, of which the following is a specification.

My invention relates to machines of the kind by which chewing-gum, confectionery, and other merchandise in small packages of uniform size, is delivered by mechanism controlled by the deposit of a coin or check, or similar token, in a designated receptacle in the machine.

The object of my invention is to produce a machine of the kind referred to which shall be small and compact, simple in mechanism and reliable in operation, and which is readily accessible in all its parts for emptying and refilling it or for clearing it of obstructions.

One feature of construction and operation by which I attain the object designated, is an arrangement by which the coin itself is utilized as the device for engaging a package of merchandise and expelling it from the holder in which the supply of packages is held.

Another feature of the machine consists in the use of a detent coöperating directly with the coin to prevent retrograde movement of the coin before the completion of the package-expelling movement.

Other features of the invention will be pointed out in connection with the description of the preferred embodiment of the invention, which is illustrated in the accompanying drawings.

In the drawings, Figure 1 is a vertical median section of the machine, looking from left to right, and Fig. 2 is a rear elevation of the machine.

The working parts of the illustrated embodiment of my invention are inclosed in a casing 1, which is removably secured to a flat back 2. The back may be secured, by any convenient means, to a wall, the back of a theater seat, or any other convenient place. As a convenient means for securing the casing to the back, I provide the sides of the casing, near the top, with inwardly projecting pins 3, which engage inclined slots formed in two flanges 4 at the lateral edges of the back. The casing and the back are secured together near the bottom also, by a bolt 5, which is passed transversely through the sides of the casing and through perforated ears 6 on the back 2. A hole 7 in the end of the bolt receives a suitable lock or seal, and when the bolt is thus secured in place, the casing cannot be removed from the back.

The packages of chewing gum or other merchandise, are stacked in an upright holder 8 which is mounted within the casing and fixed at the front thereof. This holder is open at the top and the back to facilitate the insertion of packages therein, but has inwardly extending flanges 9 at the back to retain the packages. The stack is supported by the lowermost package 10 which rests, at its ends, upon inwardly extending horizontal flanges 11. Between these flanges 11, the bottom of the holder is open to permit the engagement of the coin with the package, as described later.

The coin is actuated, in expelling a package, by a coin-carrier consisting of a horizontal bar 12 provided with a vertical slot 13. This bar is mounted on the lower end of a depending arm 14, which is pivoted in the side of the casing, and is connected with a knob 15 outside of the casing. A wire spring 16 normally holds the arm 14 in forward position, as shown in the drawings, but when the knob is turned in the direction indicated by the arrows in the drawings, the coin carrier is moved beneath the stack holder and rearwardly, to the position indicated in dotted lines in Fig. 1.

In the operation of the machine a coin is inserted, through an opening 17 at the front of the machine, in a short vertical coin-chute 18, and the coin falls to the bottom of this chute. In falling, the coin enters the slot 13 in the coin-carrier. The knob 45 is then turned, and the coin-carrier moves the coin rearwardly beneath the stack. The upper edge of the coin during this movement, engages the lowermost package 10, and thereby expels it from the rear of the stack-holder and into a chute 20, by which it is delivered at the front of the machine, through an opening 21 therein. When the coin reaches the position shown at 19 in Fig. 1, it falls into a space 22, between the chute and the walls of the casing.

During the movement above described, the coin is supported in proper position in the coin carrier by a coin support in the

form of a horizontal arm 23, extending rearwardly from the front of the casing. In order to prevent retrograde movement of the coin, before the package is completely expelled, the upper surface of the coin support is notched to form detents, as shown in Fig. 1, and these detents coöperate directly with the edge of the coin. This prevents fraudulent operation of the machine, since, in the absence of such a device, it might be possible by a quick, short movement of the coin holder and the coin, to expel a package without moving the coin to the end of the coin support, and the coin could then be returned to its original position so as to engage a second package, instead of falling into the coin receptacle 22.

When it is necessary to refill the machine, the casing is removed from the back, and access is thus afforded to the stack holder. To remove the coins from the coin receptacle the chute 20 must be removed, and the chute is therefore secured in place by means permitting its ready removal. To this end, the lower end of the chute is provided with a lip 24, which hooks over the lower edge of the opening 21. The upper end of the chute has an upwardly extending lip 25, which is engaged by a plate 26. The plate slides vertically between the flanges 9 on the stack holder, and guides 27 fixed to the sides of the stack holder. Upon raising the plate 26 the chute may be disengaged at both ends and removed from the casing.

It will be noted that the mechanism of this machine is extremely simple, as it comprises only what is, operatively, a single moving part, and the machine is thus inexpensive to construct and not liable to derangement. By the use of the knob and depending arm to actuate the coin-carrier, in place of the usual slide or plunger, the mechanism is rendered very compact, so that the machine is adapted for use in theaters or other places where only a limited amount of space is available.

Various modifications may be made in the embodiment of my invention hereinbefore described without departure from the nature of the invention as defined in the following claims.

I claim:

1. A coin-controlled vending machine comprising a back, a casing removably secured thereto, a stack-holder mounted in and fixed to the casing, mechanism mounted in and carried by the casing for expelling a package from the bottom of the stack in the stack-holder, said mechanism including a coin-carrier movable beneath the stack-holder, and a curved chute extending from the rear of the bottom of the stack-holder to the front of the casing, the chute constituting, with the walls of the casing, a receptacle for coins and being removable to remove the coins from said receptacle.

2. A coin-controlled vending machine comprising a back, a casing removably secured thereto, a stack-holder mounted in and fixed to the casing, mechanism mounted in and carried by the casing for expelling a package from the bottom of the stack in the stack-holder, said mechanism including a coin-carrier movable beneath the stack-holder, a curved chute extending from the rear of the bottom of the stack-holder to the front of the casing, the chute constituting, with the walls of the casing a receptacle for coins and being removable to remove the coins from said receptacle, and a short notched arm attached to the interior of the casing below the coin-carrier and supporting the coin, its notches forming detents to prevent retrograde movement of the coin.

EDWARD SPIEGEL.

In the presence of—
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