Feb. 1, 1927. 1,616,251

C. H. BOOKOUT

COIN CONTROLLED VENDING APPARATUS

Filed Nov. 27, 1925 2 Sheets-Sheet 1

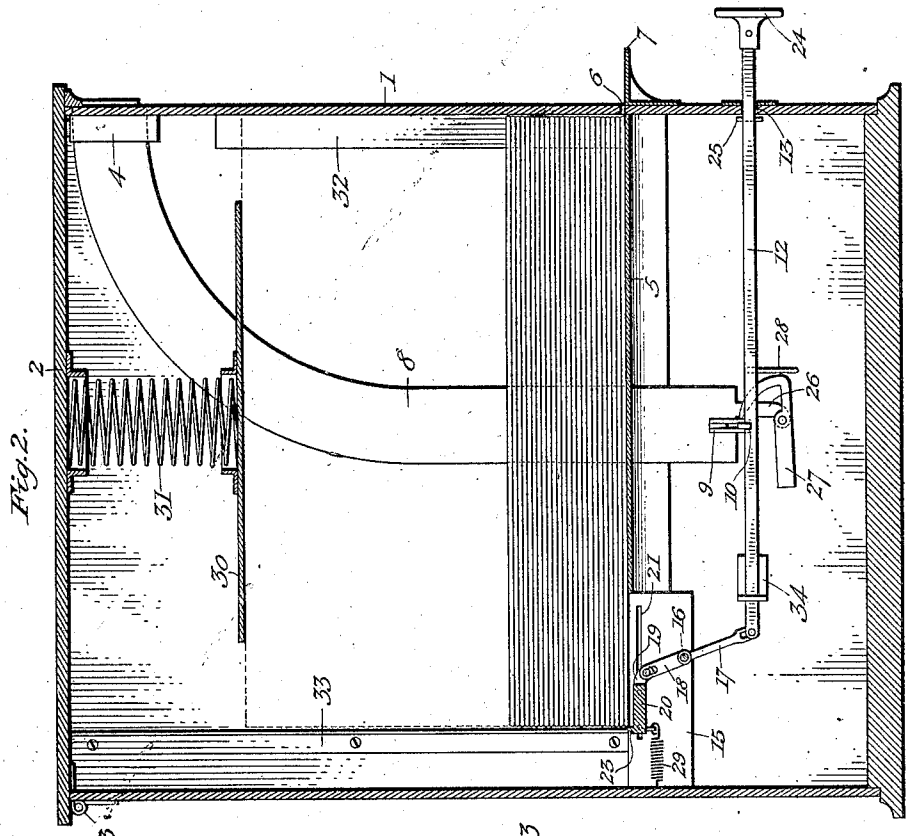


Fig. 2.

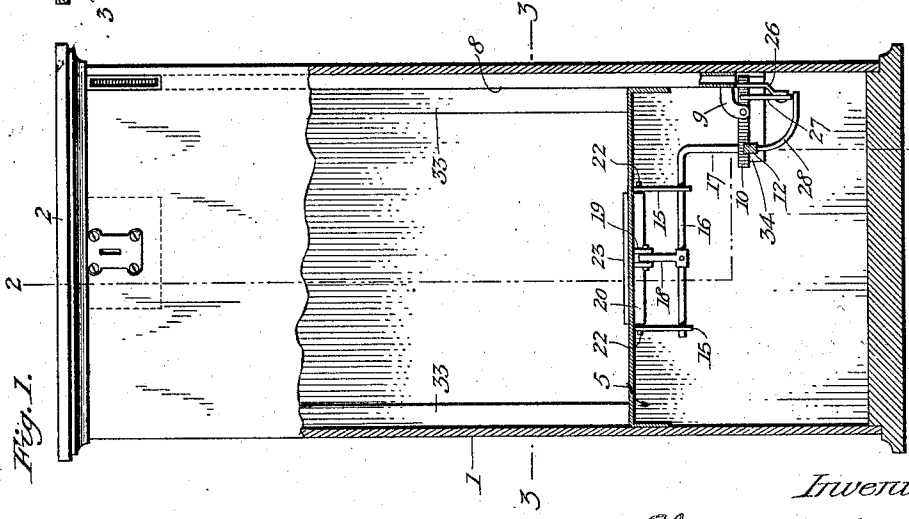


Fig. 1.

Inventor:
Charles A Bookout.
By H.S. Bailey Attorney.

Feb. 1, 1927. 1,616,251

C. H. BOOKOUT

COIN CONTROLLED VENDING APPARATUS

Filed Nov. 27, 1925 2 Sheets-Sheet 2

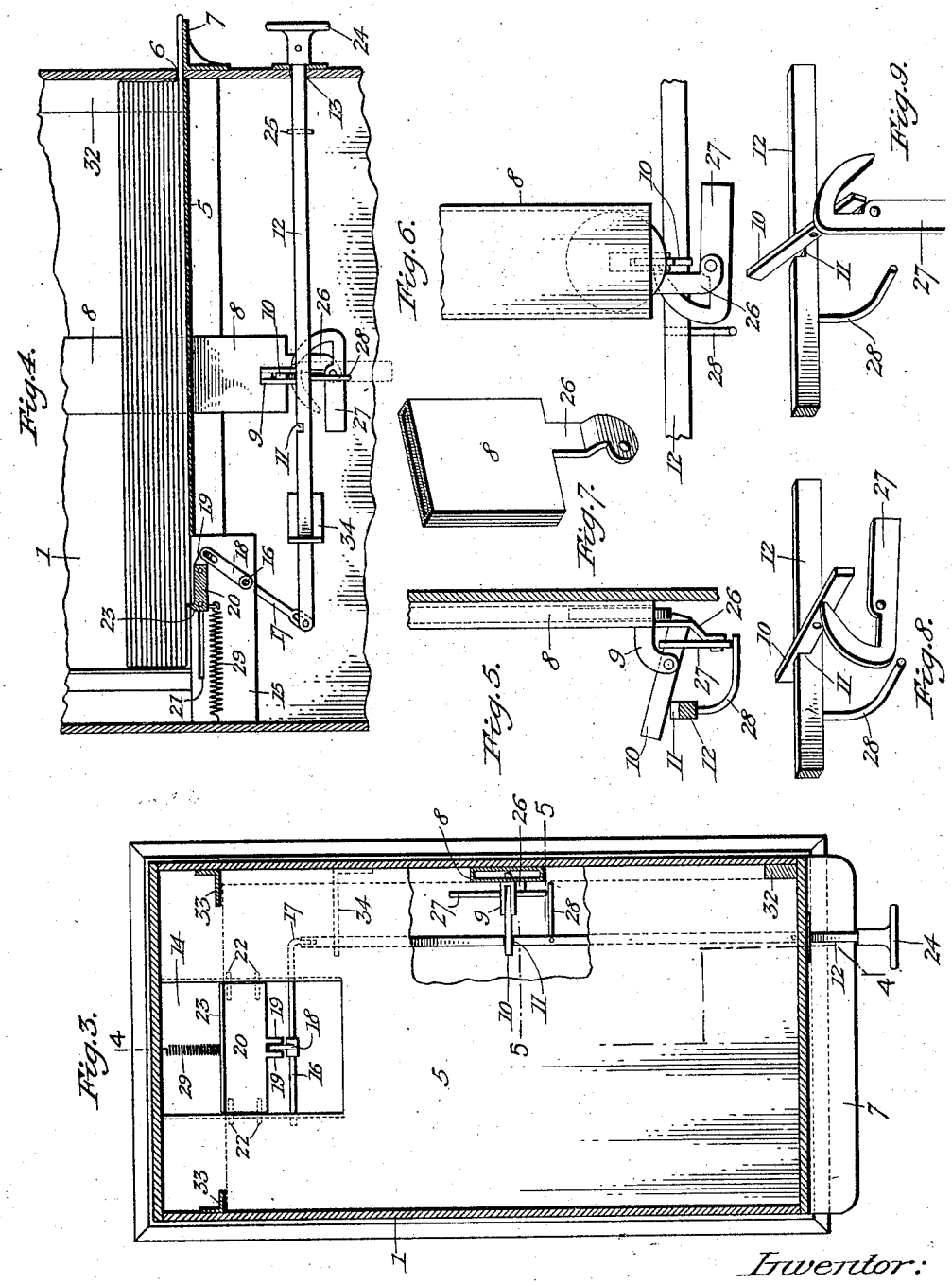


Fig. 4.

Fig. 6.

Fig. 9.

Fig. 7.

Fig. 5.

Fig. 8.

Fig. 3.

Inventor:
Charles H. Bookout
By H. S. Bailey Attorney.

Patented Feb. 1, 1927. 1,616,251

UNITED STATES PATENT OFFICE.

CHARLES H. BOOKOUT, OF DENVER, COLORADO.

COIN-CONTROLLED VENDING APPARATUS.

Application filed November 27, 1925. Serial No. 71,779.

My invention relates to improvements in coin-controlled vending apparatus, and particularly in apparatus for vending envelopes, post cards and like articles.

The main object of the invention is to provide a cabinet adapted to hold envelopes, cards and like articles in stack form and mechanism therein for ejecting such articles singly through a slot in one end of said cabinet, said mechanism being actuated by a push bar which is normally locked against movement and which is released by the drop of a coin through a chute in said cabinet.

Further, to provide vending mechanism which is operated by a push rod which is normally locked against movement by a pivoted latch one end of which lies beneath the lower end of a coin chute and which is tilted to release the push rod by the drop of a coin through said chute, automatically operating means being employed to hold the latch tilted until the rod is operated.

These objects are accomplished by the mechanism shown in the accompanying drawings in which:—

Fig. 1, is a front elevation of the apparatus, part of the front end thereof being broken away.

Fig. 2, is a vertical sectional view on the line 2—2 of Fig. 1.

Fig. 3, is a horizontal sectional view thereof, on the line 3—3 of Fig. 1.

Fig. 4, is a vertical sectional view of a portion of the apparatus, on the line 4—4 of Fig. 3 showing the mechanism in a position the reverse of that shown in Fig. 2, as when a card or envelope is ejected from the cabinet.

Fig. 5, is a fragmentary vertical sectional view—full size on the line 5—5 of Fig. 3—showing the manner in which a coin acts to tilt the latch and release the operating push rod.

Fig. 6, is a front view of Fig. 5.

Fig. 7, is a perspective view of the lower end portion of the coin chute and

Figures 8 and 9 are diagrammatic perspective views showing the latch in push-bar locking and push-bar releasing positions respectively.

Referring particularly to the accompanying drawings: The numeral 1 designates a cabinet which is of a size in horizontal section to receive either envelopes or post cards which are adapted to be stacked in the cabinet and to be dispensed singly from the bottom of the stack, in a manner to be presently described. The cabinet may be made of any suitable material and of a height to accommodate a large number of cards or envelopes and the front end may be in the form of a glass panel if desired though it is not so shown. The top of the cabinet is in the form of a lid 2 which is hinged at its rear edge to the rear end of the cabinet as shown at 3 and is secured at its front edge by a suitable lock 4 which is fastened upon the inner side of the front end of the cabinet. A table 5, preferably of sheet metal, is secured in the cabinet at a suitable distance from the bottom thereof, upon which the stack of cards or envelopes is supported, and the front end of the cabinet is formed with a horizontal slot 6 at the level of the said table, through which the cards or envelopes are projected and a shelf 7 is secured to the end of the cabinet flush with the lower edge of the said slot 6.

A coin chute 8 is secured upon the inner face of one side of the casing, its upper end extending through the front end of the cabinet from which point the chute curves inwardly and downwardly for about half its length and then extends vertically and terminates a short distance below the level of the table 5. Upon the lower end of the coin chute is secured a bracket 9 in which is pivotally supported a horizontally disposed latch 10 one end of which lies directly beneath the adjacent end of the coin chute, while its opposite end rests normally in a notch or recess 11 in a horizontally disposed push rod 12 which is passed through an aperture 13 in the front end of the cabinet and extends to within a short distance of the rear end of the same and the rear end of the push rod is bifurcated.

An opening 14 is formed in the rear end portion of the table 5, by slitting the table centrally for a suitable distance and then at right angles to the central slit or so as to form a T shaped slit and then bending the severed parts down at right angles to the table as clearly shown at 15 in Fig. 1. A shaft 16 is mounted in the downwardly bent portions 15, and one end portion of this shaft is bent at right angles to form a lever arm 17, the lower end of which is slotted, and is pivotally secured in the bifurcated end of the push rod 12. A lever arm 18 is rigidly secured to the shaft 16 and the upper end of this arm is slotted and passes between

and is pivotally connected to ears 19 on a slide 20, which is positioned in the opening 14 of the table and is supported in horizontal slots 21, in the downwardly bent members 15 of the table by pins 22 which extend through the slot 21 and into the slide.

The slide is of a length to fit snugly between the members 15 and its rear edge is formed with an upwardly projecting lip 23 which extends a slight distance above the level of the table, or a distance sufficient to engage the edge of a single envelope or a single card as the case may be. The latch 10 normally holds the push rod 12 against movement in either direction, and when the latch rests in the notch 11, the push rod is in the position shown in Figures 2 and 3, or at the limit of its outward movement, and the outer end of the rod is provided with a knob 24 having a hub the end of which engages the front of the cabinet when the rod is pushed in thereby limiting the inward movement of the rod; its outward movement being limited by a stop pin 25 which passes through the rod and which engages the inner face of the front end of the cabinet.

The lower end of the coin chute is formed with a depending arm or bracket 26 to which is pivotally secured a gravity hook 27, the body of which normally lies in a horizontal position, the end of the hook engaging one side of the latch 10, as clearly shown in Figures 2, 4 and 8, but when a coin is placed in the receiving end of the chute, it drops upon that end of the latch immediately beneath the lower end of the chute and tilts the said latch thus releasing the hook which thereby swings by gravity to a vertical position, the hook passing over the upper edge of the latch and thereby holding it in a tilted position and out of engagement with the notch 11 in the push rod 12, as shown in Fig. 9, and the latch remains in this position until it is released in the following manner: The push rod is provided with a trip 28 in the form of a short rod one end of which is rigidly secured in a hole in the push rod, its other end being bent outward to engage the hook 27 below its pivot when the rod is pushed in and when the said hook is in a vertical position, as shown in Fig. 9, and swing the same to a horizontal position, as shown in Fig. 4, when the latch is released and swings down by gravity until it rests upon the push rod. As the push rod is drawn out again, the trip releases the hook but the end of the hook engages the side of the latch thereby holding the body of the hook in a horizontal position, and when the notch 11 in the push rod registers with the latch, the latch drops by gravity into the notch, thereby locking the bar against movement in either direction.

The rear end of the slide 20 is connected to one end of a coil spring 29, the other end of which is connected to the rear end of the cabinet and this spring serves to restore the slide, as well as the push rod to their normal positions, in case a purchaser should neglect to withdraw the rod after operating the same to release an envelope. When the cabinet has been supplied with a quantity of envelopes or cards, as the case may be a thin flat plate of metal or other suitable material 30 is placed upon the top of the stack, and a light coil spring 31 is interposed between the lid 2, and the plate 30 which exerts a continuous downward pressure upon the stack thereby assuring that the bottom card or envelope of the stack will always be in proper position to be engaged by the lip 23 of the slide 20. A vertical strip of wood 32, of the same thickness as the coin chute, is secured to the inner face of that side of the cabinet to which the coin chute is secured and at the front end thereof. This strip will act in conjunction with the opposite side of the cabinet to guide the envelopes as they are pushed through the delivery slot 6 by the slide 20. Vertical strips 33 are also secured to the inner faces of the sides of the cabinet to act as abutments for the rear end of the stack of envelopes, thus preventing backward movement of the stack or of individual envelopes in the stack.

If desired, the lip 23 on the slide 20, may be deep enough to engage two or more cards or envelopes, as the case may be, at one time, or as many as may be dispensed for a nickel, in order that this coin may be used in operating the machine, such arrangement being necessary where stamped envelopes or such other articles are dispensed which have a value, singly, of more than a cent and less than a nickel.

In practice; when it is desired to withdraw an article from the cabinet, a coin is inserted in the receiving end of the coin chute and drops down upon the outer end of the latch 10, tilting the same, as before described and thus releasing the push rod 12. This rod 12 is then pushed in until the hub of the knob 24 engages the adjacent end of the cabinet, whereby the lever arms 17 and 18 are swung to the position shown in Fig. 4, the slide 20 is moved forward, its lip 23 engaging an envelope or other article which is thus moved forward to project through the slot 6 in the front end of the cabinet, and can then be withdrawn by the purchaser.

The spring 29 acts to draw the slide 20 back to the position shown in Fig. 2, thereby moving the push rod again to its operative position, and the push rod is guided and held in a horizontal position by the aperture 13 in the front ends of the housing and by a bracket 34 which supports the rear portion of the rod and is secured to the adjacent side of the cabinet.

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

1. In a coin controlled vending apparatus, the combination of a coin chute, an actuating push rod, a pivoted latch one end of which normally locks said rod against movement in either direction, its other end extending under the lower end of the coin chute, whereby, a coin falling through said chute tilts said latch and releases the actuating rod; gravity means for holding said latch in tilted position until the rod is pushed inward, said latch being adapted to swing by gravity and lock said rod when the same is moved out to the limit of its movement, means on the push rod to engage the gravity means and release the pivoted catch when the push rod is pushed in and automatically operating means for moving said rod outward.

2. In a coin controlled vending apparatus, a coin chute, an actuating push rod having a notch, a pivoted latch, one end of which is adapted normally to rest in said notch and lock said rod against movement, the other end of said latch being disposed beneath the lower end of said coin chute, whereby, a coin falling through said chute tilts said latch and releases said rod; a pivoted gravity hook which is normally held in a horizontal position by engagement with one side of said latch, but which is released by the tilting of the latch to swing by gravity to a vertical position whereby the hook portion swings over the latch and holds it in a tilted position; a trip on said rod which engages the hook where the rod is pushed in and swings the hook again to a horizontal position to release the latch which then drops by gravity upon the rod and then into the notch when the rod is retracted, and a spring for restoring the rod to its normal position.

3. In a coin controlled vending apparatus, a coin chute, an actuating push rod, means for normally locking said push rod against movement, said means being adapted to be actuated by a coin falling through said chute to release said rod, gravity means released by the coin operated means and adapted to engage the coin operated means and hold the same in rod releasing position, means on the rod for engaging the gravity means and moving it to release the coin operated means when the rod is pushed and a spring for restoring the rod to its normal position, said coin operated means acting by gravity to lock said rod when it arrives at its normal position.

4. In a coin controlled vending apparatus, the combination with a coin chute, of a gravity latch pivotally attached to said chute, one end of said latch being disposed beneath the lower end of said chute, an actuating push rod having a notch in which the other end of said latch normally lies to hold said rod against movement, said latch being tilted by a coin falling through said chute to release said rod, gravity means released by said latch when tilted and adapted to hold the latch in an inoperative position, an arm carried by the push rod to engage the gravity means and thereby release the latch when the rod is pushed inward, and a spring for restoring the rod to its normal position, said latch then acting automatically to lock said rod.

In testimony whereof I affix my signature.

CHARLES H. BOOKOUT.