F. W. TURNEY.

CHECK CONTROLLED APPARATUS.

APPLICATION FILED FEB. 12, 1917.

1,245,405.

Patented Nov. 6, 1917.

3 SHEETS—SHEET 1.

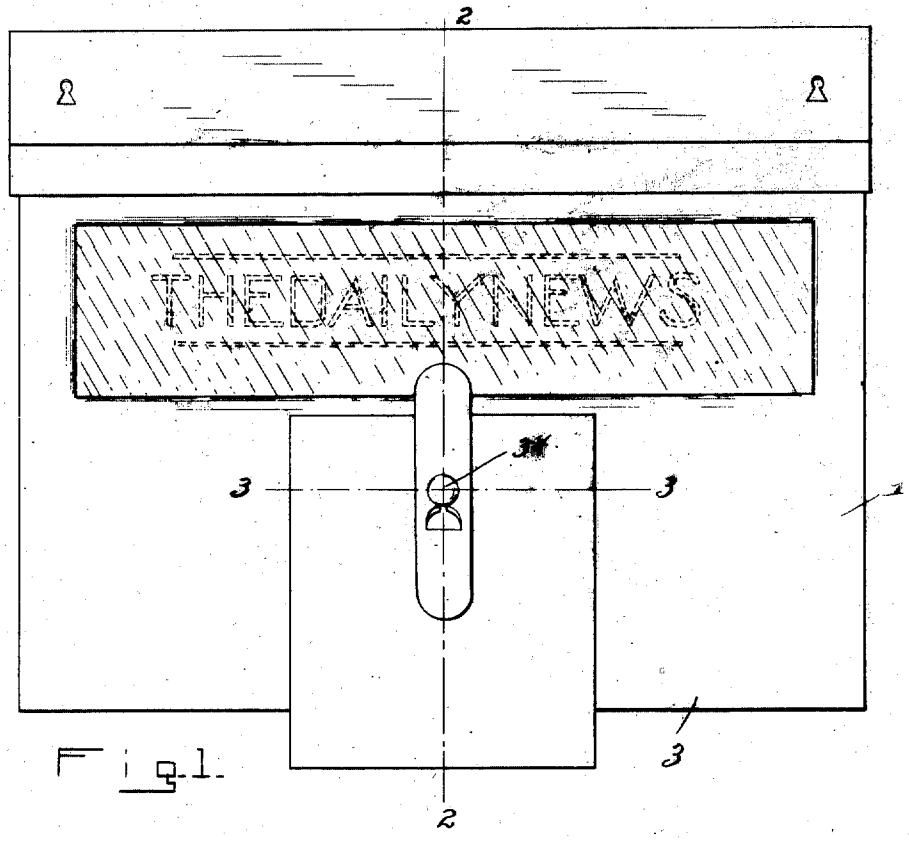


Fig. 1.

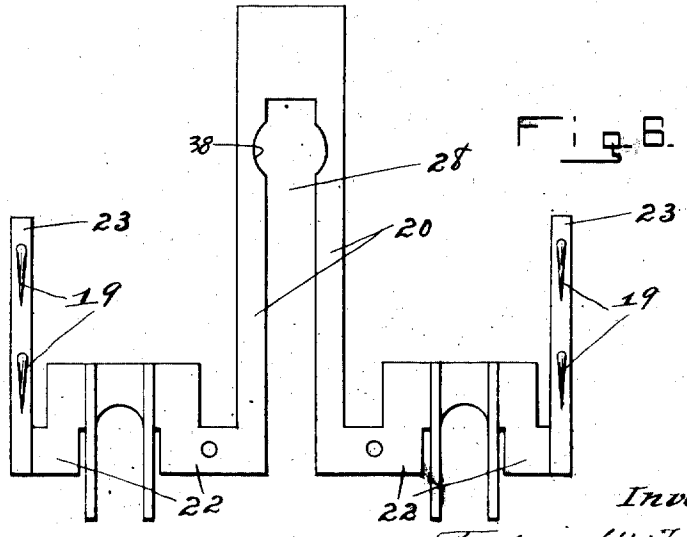


Fig. 6.

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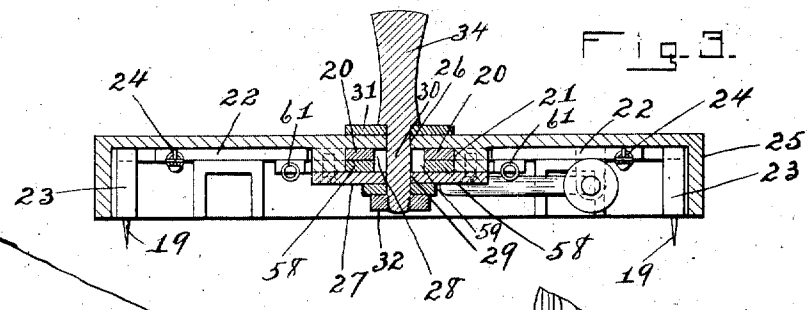
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3 SHEETS—SHEET 2.

Fig. 3.



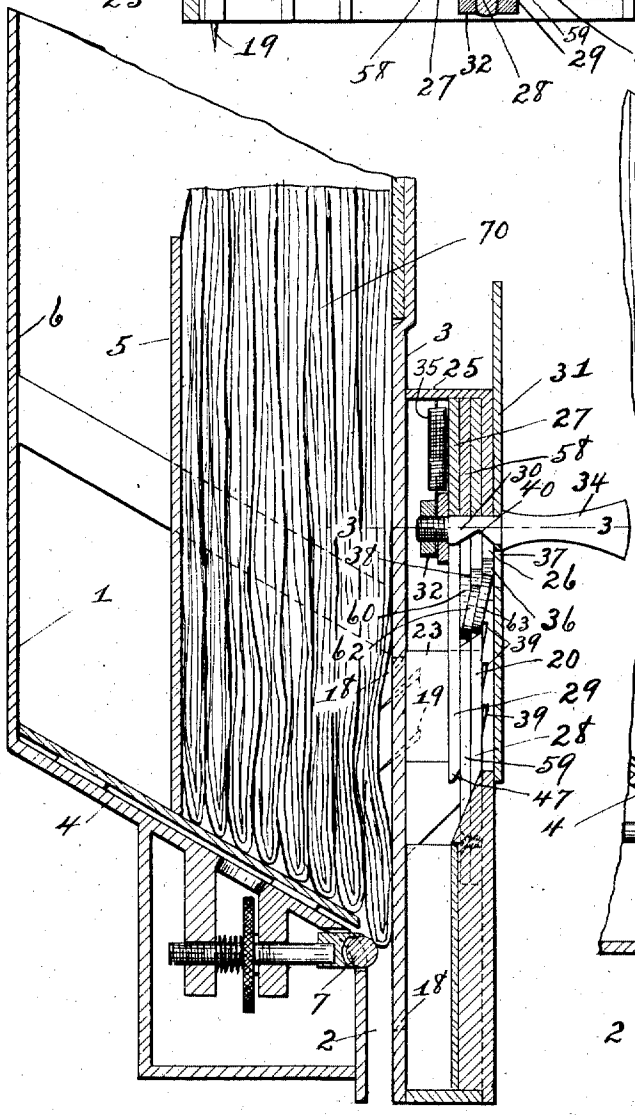


Fig. 2.

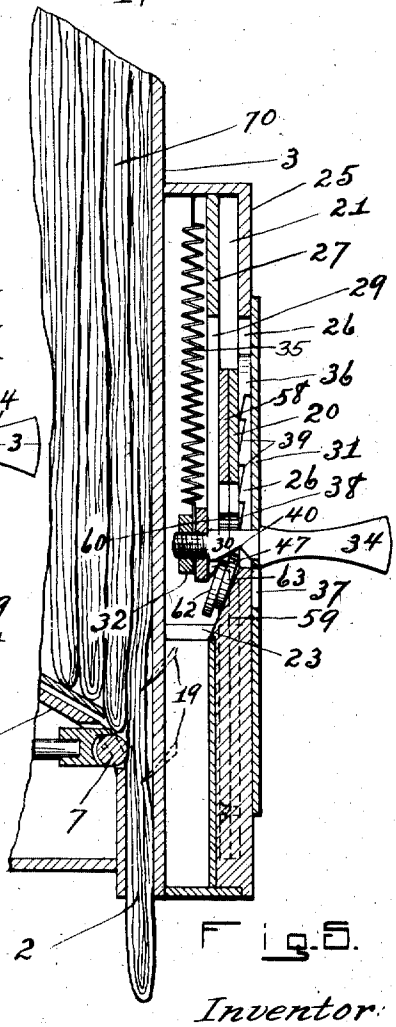


Fig. 5.

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3 SHEETS—SHEET 3.

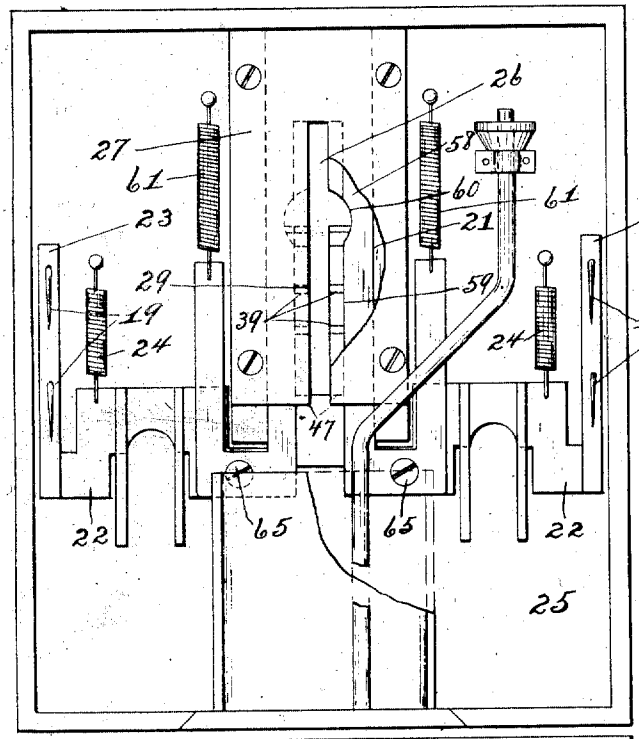


Fig. 4.

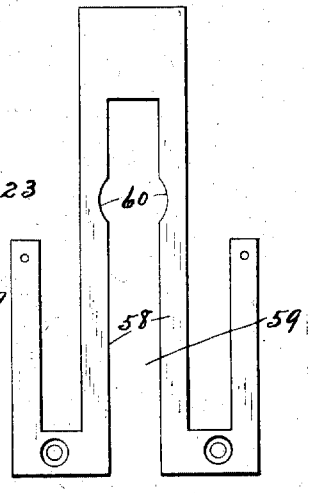


Fig. 7.

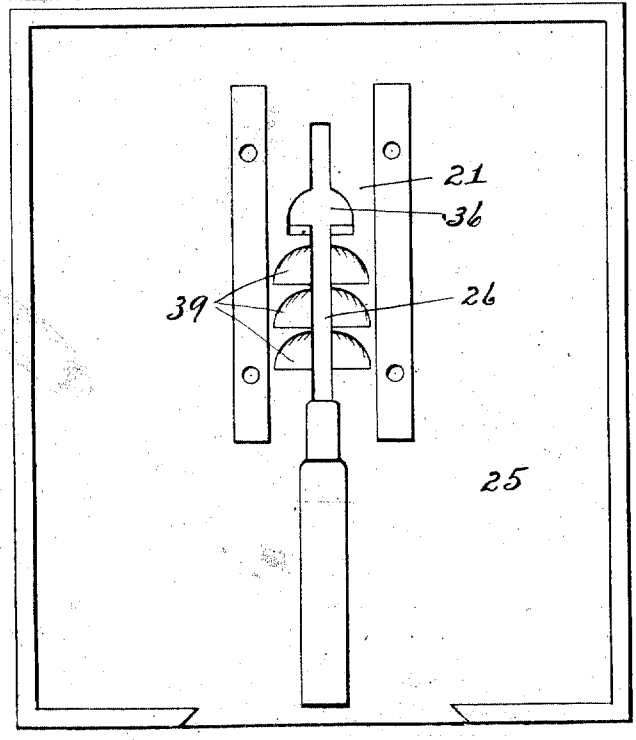


Fig. 8.

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UNITED STATES PATENT OFFICE.

FREDRICK WILLIAM TURNEY, OF BALLSTON LAKE, NEW YORK.

CHECK-CONTROLLED APPARATUS.

1,245,405. Specification of Letters Patent. Patented Nov. 6, 1917.

Original application filed January 27, 1916, Serial No. 74,546. Divided and this application filed February 12, 1917. Serial No. 148,009.

To all whom it may concern:

Be it known that I, FREDRICK W. TURNEY, a citizen of the United States, residing at Ballston Lake, county of Saratoga, and State of New York, have invented certain new and useful Improvements in Check-Controlled Apparatus, of which the following is a specification.

Reference may be had to the accompanying drawings, and the reference characters marked thereon, which form a part of this specification. Similar characters refer to similar parts in the several figures therein.

This invention relates to vending-machines or the like in which a movable member, which may be part of a delivering mechanism, is adapted to be operated by a handle through the medium of an interposed check or coin.

The principal object of the invention is to provide a check-controlled mechanism adapted to be controlled through the medium of a single coin or a plurality of coins, as may be desired.

This application is a division of an application filed by me January 27, 1916, Serial No. 74,546, for newspaper-vending machine; and in the present application I have shown my improved check-controlled mechanism applied to a vending-machine, such as is shown in said original application.

Figure 1 of the drawings is a view in front elevation of a newspaper-vending machine embodying my invention.

Fig. 2 is a vertical cross-section of the same taken on the broken line 2—2 in Fig. 1.

Fig. 3 is a horizontal cross-section of the same taken on the broken line 3—3 in Figs. 1 and 2.

Fig. 4 is a view in elevation of the inner open side of the housing for the ejecting-mechanism, with its contents removed from the magazine.

Fig. 5 is a view similar to Fig. 2, showing the check-controlled mechanism at approximately the limit of its delivering movement.

Fig. 6 is a plan view of the primary slide-plate detached.

Fig. 7 is a plan view of the auxiliary slide-plate detached.

Fig. 8 is a view similar to Fig. 4, showing merely the housing and the parts permanently fixed thereupon.

Referring to the drawings wherein the invention is shown in preferred form, 1, is an inclosure or magazine adapted to contain folded newspapers or the like, 70, for the vending of which the machine is adapted.

The magazine is provided with a bottom outlet-slot, 2, of a width adapted for the free passage therethrough of a folded newspaper or the like of the greatest thickness for which the machine is adapted, which slot is adjacent to the front side-wall, 3, of the magazine.

The bottom, 4, of the magazine is inclined downwardly toward the outlet-slot, 2, and the folded papers are arranged in upright position within the magazine with their folded edges resting upon said inclined bottom.

To facilitate thus supporting the papers and to cause them to slide down along the inclined bottom toward the outlet-slot, a movable weight, 5, is interposed between the contents of the magazine and the rear side-wall, 6, of the magazine.

The papers are yieldingly prevented from passing from the magazine into the outlet-slot, 2, by means of a yielding roller, 7, movably mounted in an opening in the rear wall of the slot, 2, to project more or less into the slot, and to so restrict the width of the slot that the folded paper next to the front side-wall of the magazine will not pass down into the slot, except when forced by the use of suitable ejecting-mechanism.

The front side-wall, 3, of the magazine is provided with vertical slots, 18, through which parts of the ejecting mechanism extend into engagement with the paper next to said side-wall.

As shown in the drawings, such paper-engaging means are in the form of spurs, 19, inclined downwardly toward the outlet-slot, which spurs project from a vertically-reciprocatory frame comprising a slide-plate, 20, vertically-reciprocable in an inclosed slideway, 21, and having on its lower end a cross-head, 22, terminating in vertical arms, 23, opposite the respective slots, 18, from which arms the spurs project through the respective slots.

Coil-springs, 24, tend to yieldingly support the spur-carrying frame in elevated position.

The slideway, 21, for the slide-plate, 20, is formed upon a housing which is prefer-

ably mounted upon the outer side of the front side-wall, 3.

This housing is provided with a vertical slot, 26, parallel with the slideway; and the slide-plate, 20, and the cover-plate, 27, for the slideway are provided with slots respectively, 28 and 29, registering with the slot, 26, which registering slots are adapted to freely receive and permit vertical play of a spindle, 30, projecting inwardly from a vertically-reciprocatory slide-plate, 31, movable along the outer side of the slotted wall of the housing, 25.

The inner end of the spindle, 30, is screw-threaded to receive a nut, 32, which holds a washer, 33, closely in sliding engagement with the cover-plate, 27, for the slideway.

A handle, 34, is fixed upon the slide-plate, 31, to serve as a means for forcing said slide-plate and the spindle, 30, downwardly, a coil-spring, 35, serving to restore them to, and yieldingly hold them in, elevated position.

The housing, 25, is provided with an opening, 36, intersected by the slot, 26, adapted to register with a similar opening, 37, in the outer slide-plate, 31, when the latter is in raised position, said openings being of a size and shape to permit passage therethrough of an ordinary coin; and the slide-plate, 20, of the spur-carrying frame is provided with a recess or opening, 38, intersected by its slot, 28, adapted when said plate is in elevated position to receive a coin inserted through the slots, 36 and 37.

Adjacent to the vertical slot, 26, the housing, 25, has formed upon its inner surface a vertical series of downwardly-facing ratchet-teeth, 39, and the under side of the spindle, 30, is formed with a beveled surface, 40, adapted to engage the top edge of an inserted coin, when forced downward thereagainst, so as to tilt said coin against said toothed surface.

Interposed between the slide-plate, 20, which carries the spurs, and the cover-plate, 27, of the slideway for said slide-plate, is an auxiliary-plate or plates, 58, one for each additional coin for the use of which the machine is to be adapted.

Each of said auxiliary-plates is provided with a vertical slot, 59, for the spindle, 30, and with a coin-opening, 60, adapted to receive a coin inserted through the coin-openings, 36 and 37, and is yieldingly held in raised position by a coil-spring, 61.

I have shown the machine adapted for joint use of two coins.

The first coin inserted, 62, will pass into the coin-opening, 60, in the auxiliary-plate, 58, without, however, rendering the machine operative, because if the handle is then pushed down before a second coin is inserted, the spindle, 30, will, by engagement with said inserted coin, merely force down the auxiliary-plate, 58, without moving the spur-actuating plate, 20.

When a second coin, 63, is inserted, it passes into the coin-opening, 38, in the slide-plate, 20, and is retained therein by engagement with the coin, 62, previously inserted in the coin-opening in the plate, 58.

Downward movement of the handle will thus cause both the slide-plate, 20, and the auxiliary-plate, 58, to be forced downward to operate the machine in the manner above described.

The construction just described can be readily adapted to be operated with a single coin, if desired, by fastening the auxiliary-plate, 58, securely to the slide-plate, 20, as by one or more screws, 65, causing the two plates to act as a unit.

The coins are prevented from escape through the openings in the slide-plate and auxiliary-plate or plates, 58, by means of the cover-plate, 27, of the slideway which cover-plate terminates or is cut away, as at, 47, at the point reached by the coin at the limit of the downward movement of the ejecting-mechanism, to thereat permit the coin to escape.

The downward movement of the ejecting-mechanism having been thus started through the medium of an inserted coin, must be completed so that the coin escapes or is expelled, before the spur-carrying frame can be restored to its elevated position, due to the engagement of the coin with the ratchet-teeth, 39.

The downward movement imparted to the spur-carrying frame by the handle, 34, through the medium of the inserted coin, causes the paper, which is next to the front side-wall, 3, of the magazine, to be slightly penetrated by the spurs, 19, and thereby forced downward past the roller, 7, through the bottom outlet-slot, 2.

The operation of the machine is as follows:

If the machine is adapted for the use of a single coin, as by fastening together the slide-plate, 20, and the auxiliary-plate or plates, 58, a person desiring to purchase one of the magazine-contained papers, inserts a coin of the proper amount through the coin-openings, 36 and 37, causing the coin to enter and occupy the coin-openings, 38, in the slide-plate and 60, in the auxiliary-plate. He then forces the handle, 34, downward as far as possible, thereby forcing the slide-plate, 20, downward and causing the spurs, 19, to engage the paper which is next to the front side-wall, 3, and force the same down through the outlet-slot, 2. At the limit of the downward movement of the ejecting-mechanism the coin escapes from the openings in the slide-plate, and auxiliary-plate or plates at the cut-away portion, 47, of the cover, 27, of the slideway,

whereupon the spur-carrying mechanism is restored to its raised position by the coil-springs, 24.

In the operation of the machine, after the handle is forced downward while the coin occupies the openings, 38, in the slide-plate and 60, in the auxiliary-plate, the engagement of the bevel, 40, on the handle-spindle with the top of the coin will cause the top of the coin to be tipped into engagement with the ratchet-teeth, 39, after which engagement the slide-plate which carries the spurs cannot be returned to its raised position until its downward movement has been fully completed to release the coin, although the handle may be ineffectively moved up and down less than its full movement.

When the auxiliary-plate, 58, is not fixed to the slide-plate, 20, as when it is desired to have the machine operate only through the medium of a plurality of coins jointly, a single coin is ineffective for operation of the machine because, as above explained, the downward movement of the handle will merely force down the auxiliary-plate without moving the spur-actuating plate.

When two coins are inserted, however, the first-inserted coin occupies the opening, 60, in the auxiliary-plate while the other coin occupies the opening, 38, in the slide-plate, 20, being prevented by the previously inserted coin from entering the opening, 60, in the auxiliary-plate. The last-inserted coin when engaged by the spindle, 30, of the handle directly forces down the slide-plate, 20, while the first-inserted coin at the same time forces down the auxiliary-plate, 58. At the limit of the ejecting movement the first-inserted coin escapes from the auxiliary-plate past the cut-away portion of the cover, 27, of the slideway immediately followed by the last-inserted coin which then escapes through the same opening, 60, in the auxiliary-plate.

I make no claim in the present application to the means herein shown and described for delivering the newspapers or similar articles, as the same forms the subject matter of the claims of my original application above referred to.

What I claim as new and desire to secure by Letters Patent is—

1. In an apparatus of the class described, and in combination; a movable member; a primary slide-plate connected with said movable member; an auxiliary slide-plate provided with a coin-opening, said primary slide-plate being provided with a coin-opening leading to the coin-opening in the auxiliary slide-plate; a slideway for both of said slide-plates forming a closure for the back of said coin-openings through part only of the movement of the slide-plates, and having adjacent to the front side of the primary slide-plate a wall provided with a coin-opening leading to the coin-opening in the primary slide-plate, said slideway and said slide-plates being provided with registering slots parallel with the slideway; and a handle having a coin-engaging spindle projecting through and adapted to play in said registering slots.

2. In an apparatus of the class described, and in combination; a pair of separately movable slide-plates provided with communicating coin-receiving openings; a slideway for said plates having a wall provided with a coin-receiving opening communicating with the coin-receiving openings in said slide-plates, said slide-plates and said wall being provided with correspondingly located longitudinal slots intersecting said respective coin-openings; a coin-engaging operating member adapted to play in said slots; and means for securing said slide-plates in fixed relation to each other when desired.

3. In an apparatus of the class described, and in combination; a pair of separately movable slide-plates provided with communicating coin-receiving openings; a slideway for said plates having a wall provided with a coin-receiving opening communicating with the coin-receiving openings in said slide-plates, said slide-plates and said wall being provided with correspondingly located longitudinal slots intersecting said respective coin-openings; a coin-engaging operating member adapted to play in said slots; means for securing said slide-plates in fixed relation to each other when desired; and separate spring-mechanism for imparting a return movement to each of said slide-plates.

4. In an apparatus of the class described, and in combination; a pair of separately movable slide-plates provided with communicating coin-receiving openings; a slideway for said plates having a wall provided with a coin-receiving opening communicating with the coin-receiving openings in said slide-plates, said slide-plates and said wall being provided with correspondingly located longitudinal slots intersecting said respective coin-openings; a coin-engaging operating member adapted to play in said slots; means for securing said slide-plates in fixed relation to each other when desired; and spring-mechanism for imparting a return movement to each of said slide-plates and said operating member.

5. In an apparatus of the class described, and in combination; a movable member; a primary slide-plate connected with said movable member; an auxiliary slide-plate provided with a coin-opening, said primary slide-plate being provided with a coin-opening leading to the coin-opening in the auxiliary slide-plate; a slideway for both slide-plates forming a closure for the back of said

coin-openings through part only of the movement of the slide-plates, and having adjacent to the front side of the primary slide-plate a wall provided with a coin-opening leading to the coin-opening in the primary slide-plate, said slideway and said slide-plates being provided with registering slots parallel with the slideway; a handle having a coin-engaging spindle projecting through and adapted to play in said registering slots; and a series of coin-engaging ratchet-teeth on said slideway-wall adjacent to said slot therein.

In testimony whereof I have hereunto set my hand this 8th day of February, 1917.

FREDRICK WILLIAM TURNEY.