S. TENNER.

VENDING MACHINE.

APPLICATION FILED SEPT. 21, 1916.

1,287,514.

Patented Dec. 10, 1918.

2 SHEETS—SHEET 1.

Fig. 2.

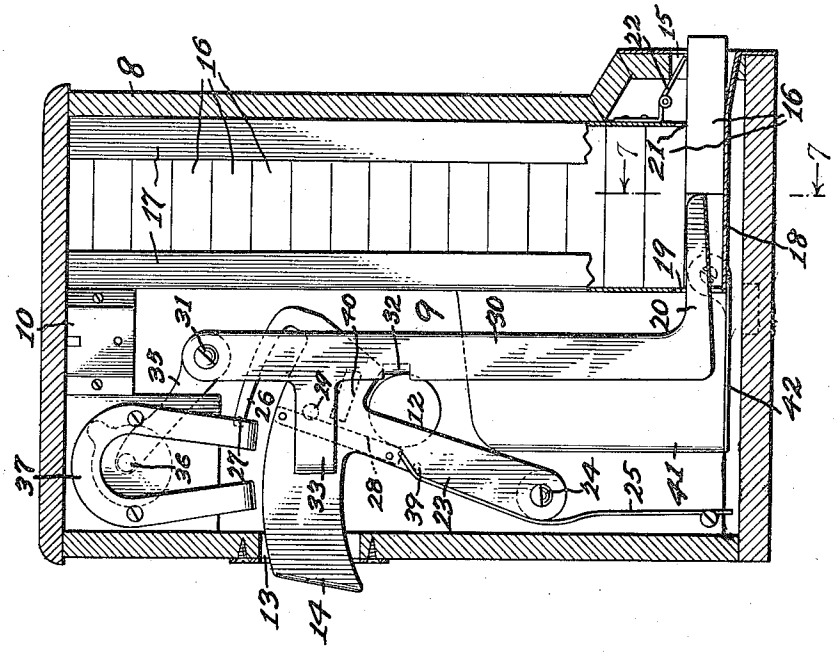
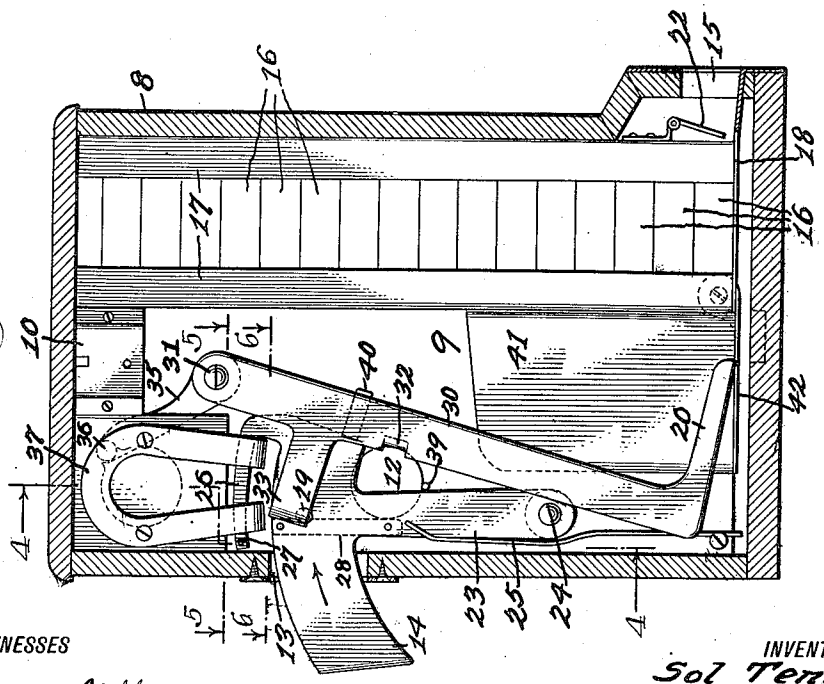


Fig. 1.



WITNESSES

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2 SHEETS—SHEET 2.

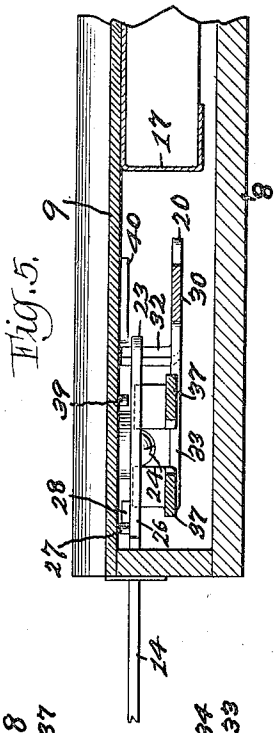


Fig. 5.

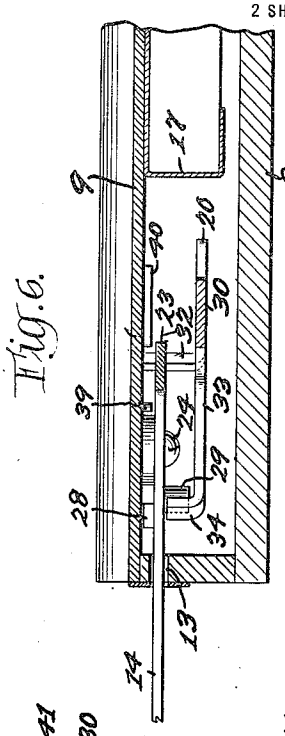


Fig. 6.

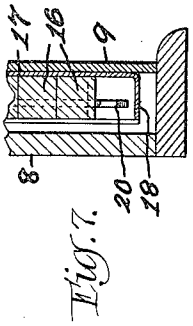


Fig. 7.

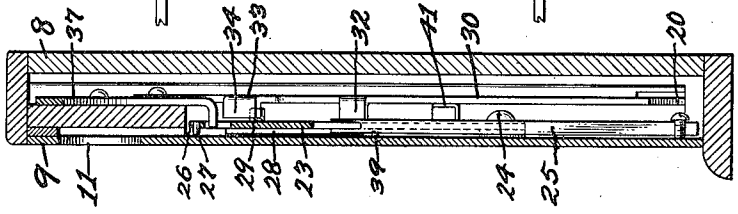


Fig. 4.

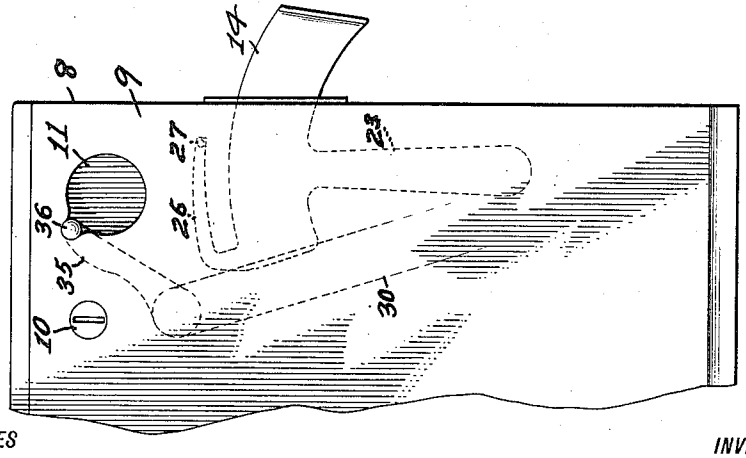


Fig. 3.

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SOL TENNER, OF NEW YORK, N. Y.

VENDING-MACHINE.

1,287,514. Specification of Letters Patent. Patented Dec. 10, 1918.

Application filed September 21, 1916. Serial No. 121,432.

To all whom it may concern:

Be it known that I, SOL TENNER, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

My invention relates to vending machines, particularly to machines for vending candies, chewing gum, and the like, and one of the main objects is to provide such a machine in a compact form whereby it will occupy but little space as, for instance, upon the backs of theater seats.

Another object is to provide such a machine which presents no projections upon its outer face which might catch on garments and tear the same.

Another object is to provide means for preventing the delivery of the merchandise contained in the machine by spurious substitutes for the coin for which the machine is designed, and still another object is to provide means for preventing the insertion of a coin while the merchandise apparatus is out of normal position.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which like characters refer to like parts in each of the views, and in which:—

Figure 1 is an elevation of the rear of my machine, in a position preparatory to merchandise delivery, with the casing in section;

Fig. 2 is a similar view with the parts in delivery position, partly broken away to show a structural detail;

Fig. 3 is a fragmentary front elevation of the machine;

Fig. 4 is a section taken on the line 4—4 of Fig. 1;

Fig. 5 is a fragmentary section taken on the line 5—5 of Fig. 1;

Fig. 6 is a similar section taken on the line 6—6 of Fig. 1; and

Fig. 7 is a similar section taken on the line 7—7 of Fig. 2.

Referring to the drawings, 8 represents a casing having a removable front plate or cover 9 held thereto by a lock 10 and provided with an opening 11 for the reception of a coin 12, Figs. 1 and 2, and said casing is provided with a slot 13 in one edge for a plunger 14 and with a delivery opening 15 for one of a plurality of boxes, packages, or articles, 16 held in superposed arrangement within a hopper 17 extending from the top of the casing to a false floor 18 near the bottom of the casing.

The hopper 17 is provided with an opening 19 at one edge to permit the entry of a push-bar 20 and with an opening 21 at the opposite side of a height permitting the removal of one only of the merchandise 16 toward the delivery opening 15 in the casing, and the hopper opening 21 is protected by a door 22 opening outwardly and preferably spring controlled, no spring being illustrated as many forms thereof will suggest themselves.

The plunger 14 is carried by a lever 23 pivoted at 24 and normally held in outward plunger position by means of a spring 25, said lever 23 having an arm 26 at its upper end carrying a forwardly directed pin 27 at its outer end extending to the front plate 9, Figs. 4 and 5, and the lever 23 is provided, on its forward side, with a bar 28 also extended to the front plate 9, and on its rearward side with a pin 29, Fig. 6.

The push-bar 20 is carried by a lever 30 pivoted at 31 and provided with a forwardly directed lug 32 and with an arm 33 the outer end of which is angularly bent at 34 toward the front plate 9, the hook so formed being adapted to engage the pin 29 as will be later explained, and said lever 30 also carries an arm 35 at its fulcrum and which arm is provided with a forwardly directed pin 36 normally held in a recess in the coin opening 11.

Secured adjacent the coin opening 11 is a horseshoe magnet 37 having its arms bent forwardly beneath the arm 26 of the lever 23 in close proximity to the path of the coin in its downward path of movement, and I provide a pin 39 on the front plate for limiting downward coin movement and a stop 40 for preventing upward coin movement during the delivery of the merchandise.

When a coin 12 is placed in the opening 11 and released it passes downwardly until it is stopped by the pin 39 and then rests between the bar 28 on the lever 23 and the lug 32 on the lever 30 and, when the plunger 14 is pressed inwardly, the coin pushes the lever 30 to the right in Figs. 1 and 2 and thus forces the push-bar 20 through the opening 19 in the hopper 17 and delivers one article of merchandise at the casing opening 15 whence it may be removed by hand, the push-bar 20 meanwhile supporting the other articles of merchandise and, in this move-

ment of the lever 30, the arm 35 thereof moves across the coin opening 11 and prevents the introduction of another coin while the parts are in these positions.

When the manual pressure on the plunger 14 is released the spring 25 carries the lever 23 back to normal position and in this movement the pin 29 thereon engages the hook 34 of the lever 30 and carries this lever and connected parts to normal positions, the coin 12 being released to drop into the coin receiver 41 whence it may be removed through the lower open end which is normally protected by a door 42, the lever 23 having a degree of backward movement before affecting the lever 30 because of the space between the pin 29 on the lever 23 and the hook 34 on the lever 30, thus releasing the coin.

If a spurious substitute for the coin be introduced into the casing, such as an iron slug, the magnet 37 attracts and holds the same to prevent its downward movement to the coin stop pin 39 and, when the plunger 14 is depressed, the pin 27 on the arm 26 of the lever 23 engages the slug and carries it over the coin receiver 41 into which it falls, and no merchandise delivery results.

My invention is very simple though entirely practical and, while I have shown certain preferred details, I may make changes thereover provided such changes come within the spirit of the invention and within the scope of the appended claims.

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

1. A coin operated vending machine, comprising a casing provided with a coin opening and with a merchandise delivery opening, a pivoted and spring pressed lever having at its upper end a plunger projecting through an opening in the casing and provided with a coin engaging member on one side and a pin on the opposite side at its upper end, a second pivoted lever provided with a push bar at its lower end, a coin engaging lug opposite the coin engaging member of the first lever and a hook-shaped arm for engaging the pin of the first lever, and a coin rest on the casing adjacent the coin engaging lugs of the said levers.

2. A coin controlled vending machine, comprising a casing provided with a coin opening and with a merchandise delivery opening, a pivoted and spring pressed lever having a plunger projecting through an opening in the casing, said lever being provided with a coin engaging lug on one side and a pin on the other and with an arm extending over its upper end and carrying a pin at its end, a magnet adjacent the arm of said lever, a second pivoted lever provided with a push bar at its lower end, a coin engaging lug opposite the lug of the first lever and a hook-shaped arm for engaging the pin of the first lever, and a coin rest on the casing adjacent the coin engaging lugs of the said levers.

3. A coin operated vending machine, comprising a casing provided with a coin opening, a merchandise delivery opening and a coin support on its inner face, a lever provided with a plunger projected outwardly of the casing, a supplemental lever having a push-bar thereon, a hopper for articles of merchandise into which said push-bar is adapted to pass, oppositely arranged coin engaging means on said levers, and between which a coin is held by the supports, whereby the said levers are caused to move simultaneously when a coin is so engaged, means for returning the parts to normal positions after each operation, and means for preventing the introduction of a coin while the merchandise is being delivered.

4. In a coin operated vending machine, a casing having a recessed coin opening and a merchandise delivery opening, a pivoted and spring pressed lever having a plunger projecting out through an opening of the casing, a second pivoted lever having a push bar at its lower end, and an arm at its upper end carrying a pin normally lying in the recess of the coin opening of the casing, and opposed coin engaging means on the said levers.

SOL TENNER.