

A. LOVENBERG.
CHANGE MAKER.

APPLICATION FILED OCT. 26, 1914.

1,144,606.

Patented June 29, 1915.

2 SHEETS—SHEET 1.

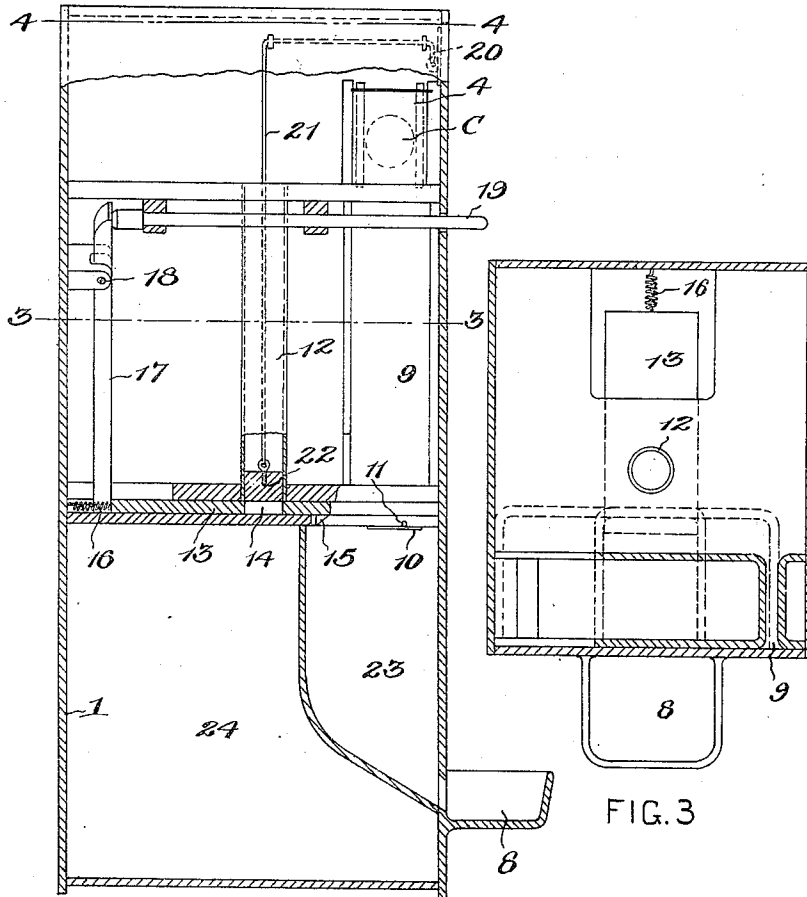


FIG. 1

FIG. 3

WITNESSES

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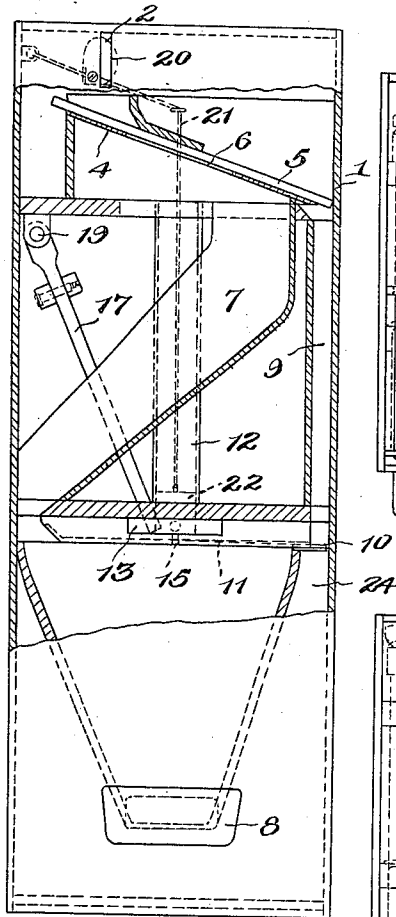


FIG. 2

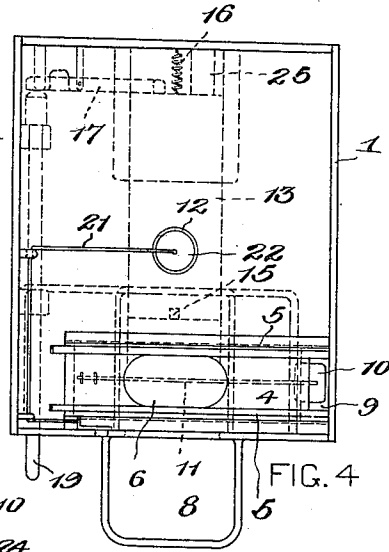


FIG. 4

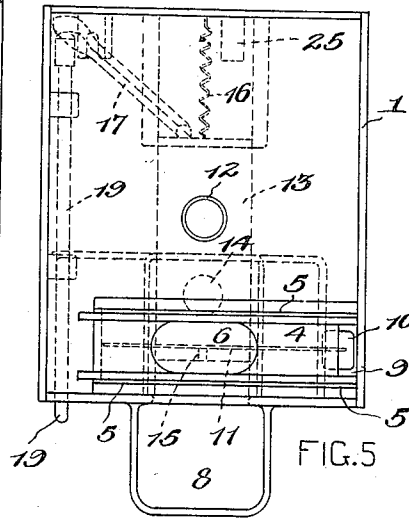


FIG. 5

WITNESSES

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UNITED STATES PATENT OFFICE.

ADELAIDE LOVENBERG, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-THIRD TO
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CHANGE-MAKER.

1,144,606.

Specification of Letters Patent. Patented June 29, 1915.

Application filed October 26, 1914. Serial No. 868,545.

To all whom it may concern:

Be it known that I, ADELAIDE LOVENBERG, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Change-Makers, of which the following is a specification.

This invention relates to certain new and useful improvements in change makers, and the primary object of the invention is to provide improved means for rendering the apparatus certain in its operation so as to not furnish an excess of small coins for one of a larger denomination, and to also prevent fraudulent operation of the machine or tampering therewith.

Further, the invention aims to generally simplify devices of this character, and to reduce the number of moving or operating parts, so as to thereby correspondingly reduce to a minimum the possibility of the parts becoming deranged or rendered inoperative.

Still further, the invention aims to provide improved shutter mechanism which automatically closes the coin slot when the apparatus has been emptied of coins used in the making of change.

Other and further objects will be later set forth and of themselves manifested in the course of the following specification.

In the drawings—Figure 1 is a vertical sectional view of the invention. Fig. 2 is a front elevation, partly broken away and in section. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a top plan view with the cover removed, and Fig. 5 is a view similar to Fig. 4 with the parts in different positions.

The invention consists of a casing 1 having a coin receiving slot 2 which allows the coin to drop onto the inclined guideway 4 and to enter the coin chute 9. The guideway 4 is formed with side ribs 5 spaced so as to just receive therebetween the coin to be changed, which for purpose of example is assumed to be a nickel.

An opening 6 is formed in the bottom of the guideway 4 so as to allow a penny or a dime to drop therethrough without operating the machine as shown in dotted lines at C in Fig. 1. Below the guideway 4 a chute 7 is disposed to receive small coins which drop through the opening 6 and to

convey such small coins to a cup 8 located exterior of the casing and accessible to a person operating the apparatus.

Coin chute 9 leads from the lower end of guideway 4 and discharges the nickel onto a plate 10 (Fig. 4) which plate is supported by a light spring rod 11 and is located at the lower end of chute 9.

The pennies are stacked within the tubular holder 12 below which a slide 13 operates, the slide having a penny receiving opening 14 which is of a depth to receive but five pennies when the opening registers with the lower end of the holder 12.

A latch 15 connected to the slide 13 normally holds the slide locked in out position by engagement with the spring rod 11 as shown in Fig. 5, the latch being held against operation or held locked by the spring 11.

A coiled spring 16 is connected to the slide 13 and to the casing and acts to pull the slide inwardly so as to receive a charge of five pennies. A lever 17 is pivoted to the casing at 18 and at its lower end bears against the slide 13 and at its upper end is engaged by a push rod 19 which projects without the casing so as to enable the slide to be moved to discharging position.

A shutter 20 which is weighted or overbalanced is pivoted to the casing in a position so as to close the coin receiving slot 2 when all of the pennies in the tubular holder 12 have been exhausted, the shutter being connected to a cord or cable 21 which latter in turn is connected to a weight 22 that slides in the holder 12 so that the weight will, upon exhaust of all of the pennies, pull the shutter to a position where the same closes the coin receiving slot 2.

In operation, the parts normally occupy the position shown in Fig. 5 in which the pennies in the holder 12 rest upon a blank portion of the slide 13, the latter being held in the position shown in Fig. 5 by means of the latch 15 and the wire spring 11 and against the tension of the spring 16 which tends to pull the slide inwardly. When a nickel is inserted in the slot 2 it drops on guideway 4 and passing down the latter enters chute 9 and gravitating through the chute strikes plate 10, effecting release of the latch 15 by moving spring rod 11 out of the path of the latch, which now allows the spring 16 to contract and to consequently pull the slide 13 inwardly into position

where the opening 14 receives five pennies. The operator now presses inwardly on the rod 19, which through the lever 17 moves the slide and therewith the five pennies outwardly to a position where same drop into the chute 23 and are discharged into the cup 8. The act of the rod 19 and lever 17 in moving the slide outwardly effects resetting of the parts in locked position ready for further operation of the machine.

It will thus be seen from the above that the slide is normally in "out" position in which position the slide cannot be tampered with, even by operating push rod 19, nor can pennies enter the receiver 14 of the slide, but as soon as a nickel engages the plate 10 and releases the latch 15, the spring 16 acts to draw the slide inwardly into such position as causes the receiver 14 of the slide to register with the holder 12 and to allow five pennies from the holder to enter the receiving opening 14 (Fig. 1). Then when the operator moves the slide outwardly the pennies are discharged and the parts automatically reset, or relocked ready for further operation of the machine. By requiring that the slide must move in before the same can be charged with pennies it will be seen that fraudulent operation of the machine by persons tampering therewith is prevented, since the slide can move inwardly only when a nickel is deposited in the machine. The nickel drops into the compartment 24 shown more clearly in Fig. 2.

For the purpose of limiting the inward movement of the slide so as to assure the receiver opening 14 registering with the holder 12, a stop 25 (Figs. 4 and 5) is employed.

Obviously the machine can be employed for coins other than nickels, the present example of use with nickels being merely for purpose of illustration.

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

1. In a change maker, a casing having a coin holder, a slide beneath the holder having a receiver opening of a depth to receive only the proper number of coins, a spring to move the slide inwardly to cause the receiver opening to be disposed in register with the holder, a latch on the slide, a spring rod engaged with the latch to hold same and the slide against the tension of the spring, a plate on the rod operable by a descending coin to move the rod out of engagement with the latch to thereby allow the spring to move the slide inwardly to cause the receiver opening to register with the holder and to receive a charge of pennies, a lever pivoted to the casing and engaged with the slide to move the latter outwardly and a push rod to actuate the lever.

2. In a change maker, in combination with a coin holder, and a slide cooperating there-

with and formed with a coin receiver, a spring to normally move the slide inwardly, latch mechanism connected to the slide, coin controlled mechanism engageable with the latch mechanism to normally hold the slide in a position where the receiver thereof is in front of the holder and whereby the spring upon release of the latch mechanism moves the slide to position where the receiver registers with the holder, and manually controlled means for operating the slide to discharging position and for resetting the latch mechanism.

3. In combination with a coin holder, and an ejector cooperating therewith, coin-controlled means for holding the ejector out of coin receiving position with respect to the holder, means to automatically move the ejector to a position to receive coins from the holder upon operation of the coin controlled means, and manually controlled means for moving the ejector to ejecting position and for resetting the ejector in locked position and in engagement with the coin controlled means.

4. In a change maker, coin holding means, tensioned ejecting means, means to normally lock the ejecting means in its extreme outward position out of register with the coin holding means, means operable by a coin to release the locking means to thereby cause the ejecting means to be automatically moved inwardly and into register with the coin holding means, and means for operating the ejecting means to coin ejecting position.

5. In a change maker, in combination with a coin holder, an ejector having coin receiving means normally out of register with the holder, coin controlled means to normally hold the ejector out of registry with the coin holder, means for automatically moving the ejector into registering position with the holder, upon release of the coin controlled means, and means to actuate the ejector to ejecting position upon release of the coin controlled means and following the movement of the ejector to position registering with the holder.

6. In a change maker, in combination with a coin holder, a slide cooperating therewith and having coin receiving means for registry with the holder, coin controlled means to hold the slide against movement to bring its receiving means into register with the holder, means to operate the slide to position to register with the holder and receive coins therefrom upon release of the coin controlled means, and manual means to move the slide to coin ejecting position and to reset same in engagement with the coin controlled means.

7. In a change maker, a coin holder, a spring tensioned ejector, coin releasable means to normally lock the ejector against the tension of said spring in a position out-

of register with the holder, said spring upon release of the lock acting to automatically move the ejector into coin receiving position, a pivoted lever engaged at one end with the ejector, and a push bar engaged with the other end of the lever.

8. In a change maker, a coin holder, a tensioned ejector, coin-controlled means to normally hold the ejector out of register with the holder and under tension whereby upon release of the coin-controlled means the ejector will be automatically moved into register with the holder, and means to move the ejector to coin-ejecting position against the tension of its tensioning means.

9. In a change maker, a holder, an ejector, coin-controlled means to normally hold the ejector in a position out of register with the holder, means to automatically move the ejector to a position in register with the holder upon release of the coin controlled means, and means operable only when the ejector is in register with the holder to move the ejector to ejecting position.

10. In a change maker, in combination

with a coin holder, an ejecting slide cooperating therewith, coin controlled means to normally hold the slide in position out of operative register with the holder, means to automatically move the slide to position to receive coins from the holder upon release of the coin controlled means, and means to move the slide to ejecting position.

11. In a change maker, in combination with a coin holder, an ejector, coin controlled means to normally hold the ejector out of register with the holder, means for automatically moving the ejector into register with the holder upon insertion of a coin, and manually operable means to move the ejector to ejecting position following said automatic movement thereof.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADELAIDE LOVENBERG.

Witnesses:

MARTINHO LOWANDEFÉ,
MAUD M. THORNTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."