

A. COSEGLIA.

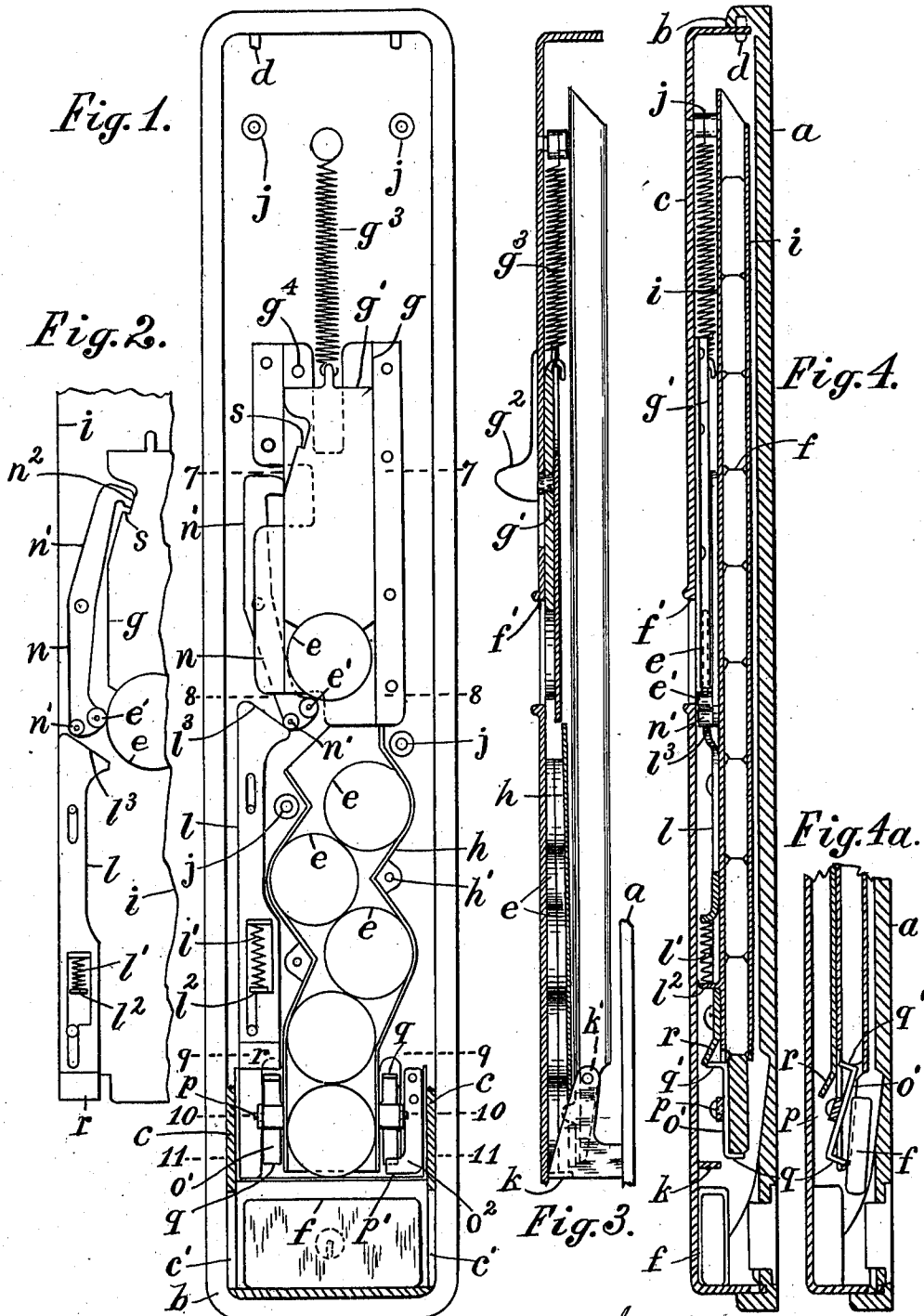
COIN VENDING MACHINE.

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2 SHEETS-SHEET 1.

970,801.



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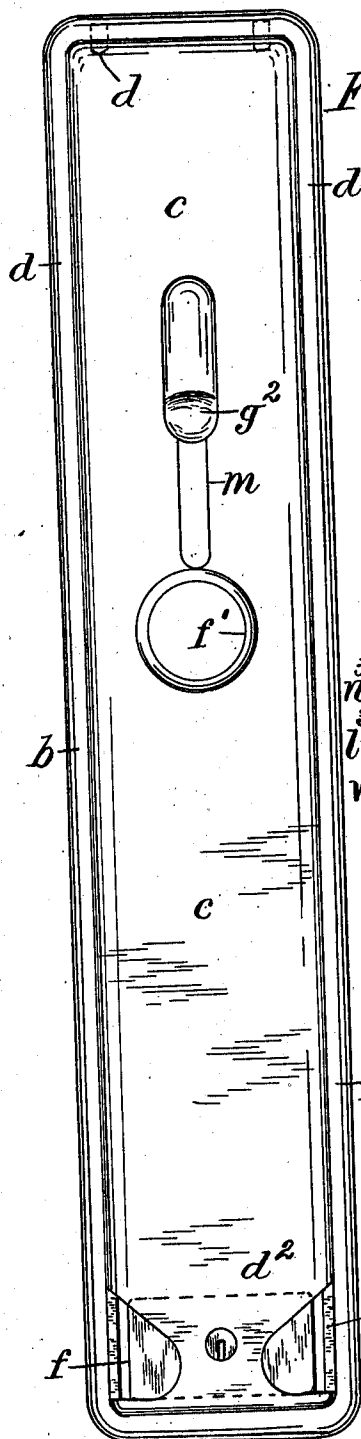


Fig. 5.

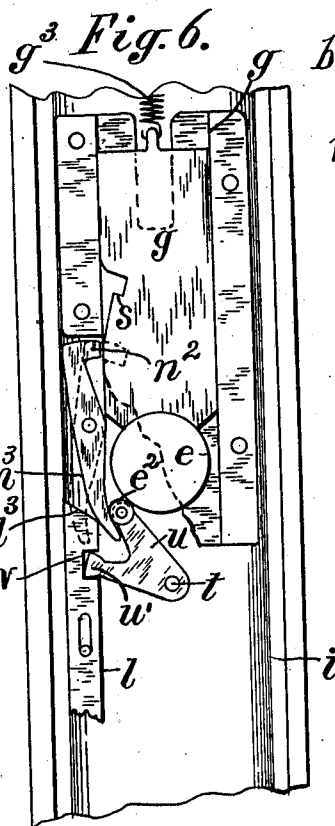


Fig. 6.

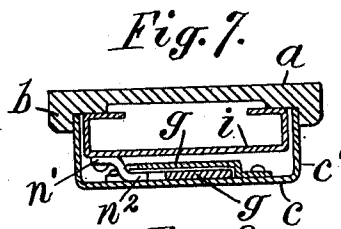


Fig. 7.

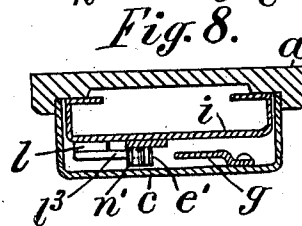


Fig. 8.

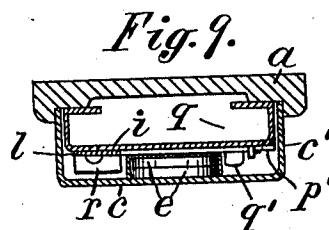


Fig. 9.

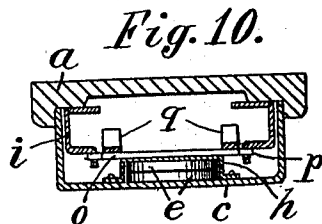


Fig. 10.

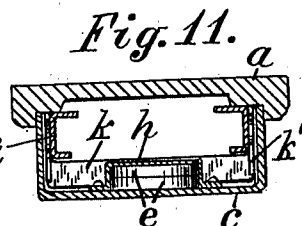


Fig. 11.

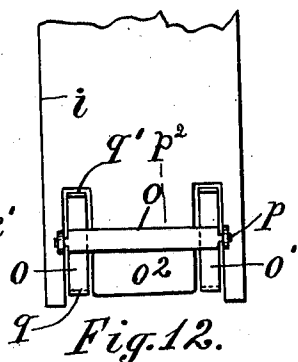


Fig. 12.

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UNITED STATES PATENT OFFICE.

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COIN VENDING-MACHINE.

970,801.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed June 9, 1909. Serial No. 501,113.

To all whom it may concern:

Be it known that I, ANTHONY COSEGLIA, a subject of the King of Italy, residing at 901 Malone street, West Hoboken, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Coin Vending-Machines, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to a machine for vending packages, as of candy or other merchandise, by inserting a coin in the case; and the object of the invention is to furnish a simple and compact construction which can be cheaply manufactured and occupies but little space when in use.

The casing of the machine consists of a vertical back-plate with a cover locked removably thereon and having the package-magazine and the operating mechanism attached to such cover.

The invention includes a latch pivoted at the bottom of the magazine and provided with vertical arms having fingers projected forward and backward at the top and bottom respectively, to retain and release the packages, and is operated by a slide-bar having an inclined end to engage the forwardly projecting finger, which when the coin is inserted and pushed down is pressed upon the said finger and shifts the latch to discharge one of the packages.

The slide-bar is actuated by a lever which stands normally in the path of the coin. A coin-inlet is made in the cover and the coin-slide covers such inlet when depressed. The lever has a tooth which, when the lever is pushed sidewise by the movement of the coin, engages a locking-notch upon the coin-slide and holds it before the coin-inlet. The slide-bar is pushed normally upward by a spring and has a sloping head which when thus pushed shifts the lever in the path of the coin and clears the hook from the locking-notch.

The magazine is so arranged that when it is full the last coin stands adjacent to the lever and holds the tooth in the locking notch so that the coin-slide cannot be operated, nor any coin inserted in the inlet. The package when discharged falls within the bottom of the cover which has apertures in its opposite edges in which the fingers can be inserted to push the package out laterally.

The invention will be understood by reference to the annexed drawing, in which—

Figure 1 is a front view of the back-plate with the apparatus in operative position thereon as if detached from the cover; Fig. 2 is a similar view of the mechanism for locking the slide, with the connected portion of the magazine; Fig. 3 is a section of the cover at its center line including the coin-slide and the coin-chute with its gate at the bottom, and an edge view of the magazine. Fig. 4 is a vertical section at the center line with the coin-chute omitted to expose the other parts; the latch being in operation to support the packages in the magazine. Fig. 4^a is a similar section at the lower end of the casing but taken close to the latch-arm *o'* showing the slide-bar depressed to discharge one of the packages. Fig. 5 is a front view of the apparatus closed; Fig. 6 is a view like Fig. 1, of the parts adjacent to the coin-slide, showing a bell-crank for actuating the slide-bar; Fig. 7 is a cross section on line 7—7 in Fig. 1; Fig. 8 is a cross section on line 8—8 in Fig. 1; Fig. 9 is a cross section on line 9—9 in Fig. 1; Fig. 10 is a cross section on line 10—10 in Fig. 1; and Fig. 11 is a cross section on line 11—11 in Fig. 1. Fig. 12 is a front view at the bottom of the magazine.

The back-plate *a* has a raised border *b*, and the cover *c* has a flange *c'* fitted within such border. Pins *d* project inside the border at the top of the back-plate, and holes are formed in the flange at the top of the cover to engage such pins, and a lock *d'* at the bottom of the cover then serves to hold the casing closed. A hole *d*² is shown in Fig. 5 through which a key can be inserted for unlocking the cover, the package *f* which is shown in that figure being, of course, removed before the key could be introduced.

The cover is provided with a circular coin-aperture *f'*, and a guide *g* is attached to the cover behind such aperture and provided with a vertical channel to guide the coin-slide *g'* over the aperture, and to also guide the coin into the coin-chute. A spring *g*³ holds the coin-slide normally raised against a stop *g*⁴, shown in Fig. 1. The coin-chute *h* is attached to the cover by rivets *h'* below the aperture, and is made double the thickness of the coins *e* so that the five circles representing the coins in the magazine really indicate ten coins.

The magazine *i* is a rectangular tube to

hold the packages *f* and is fastened to the cover (by studs *j*) in the rear of the coin-slide and coin-chute, both of which terminate above the bottom of the cover at a sufficient distance to discharge one of the packages, as shown in Figs. 4 and 5. The magazine is proportioned to hold eleven packages corresponding to the total number of coins which can be accommodated in the chute and guide *g*.

A gate to close the bottom of the coin-slide is shown as a crossbar *h* having arms *h'* pivoted upon the opposite edges of the magazine, which arms are made wide enough at their lower ends to contact with the back-plate *a* when the cover is closed, and thus hold the crossbar beneath the coin-chute, as shown in Figs. 3 and 11. When the cover with the attached parts is removed from the back-plate this gate can be swung backward and the coins dropped out of the coin-chute.

A slide-bar *l* is attached to the front of the magazine at the side of the coin-chute, and a spring *l'* presses the same normally upward, the spring resting upon a stud *l²* attached to the magazine.

The top of the slide has a sloping head *l³*, and a lever *n* is pivoted upon the magazine with its lower end adjacent to such sloping head and carrying a roll *e'* which stands in the path of the coin *e* when first inserted in the coin-aperture *f'*.

The coin-slide is provided with a thumb-piece *g²* projecting through a slot *m* by which the slide can be pushed down. The coin is guided in the channel *g* during such downward movement and forces the roll and lever laterally.

A roll *n'* upon the lever engages the sloping-head *l³* of the slide-bar and forces the same downward, as shown in Fig. 2, in opposition to the spring *l'*. Such downward movement actuates the latch of the magazine which is pivoted upon the bottom of the magazine, as shown in Figs. 1 and 12, and consists of a crossbar *o* having vertical arms *o'* at its opposite ends and pivoted upon the magazine by pins *p*.

The arms are provided at the bottom with backwardly projecting fingers *q* which normally support the packages in the magazine, as shown in Figs. 4 and 10, and are pressed normally beneath the packages by a spring *p'*. The arms are provided at the top with forwardly projecting fingers *q'*, one of which is engaged with an inclined tongue *r* upon the bottom of the slide-bar when the slide-bar is pushed downward by the roll *n'*. Such position of the slide-bar is shown in Fig. 4^a, which pushes the fingers *q'* backwardly and dislodges one of the packages from the magazine and allows it to drop into the bottom of the cover, as shown at *f* in Figs. 1 and 4. The position of the slide-bar

when thus depressed is indicated in Fig. 2, with the coin on a level with the roll *e'*; but the coin does not remain in such position but is pushed below the roll by the coin-slide and drops into the chute *h*, which permits the spring *l'* to force the slide-bar upward and crowd the lever *n* with the roll *e'* into the channel of the coin-slide. An arm *n'* is formed upon the upper end of this lever and provided with a tooth *n²* adjacent to the edge of the coin-slide, and a notch *s* is formed in the slide, which the tooth engages when the slide is all the way down and the lever *n* pushed laterally by the coin.

The lever *n* is uncontrolled by any spring and the tooth would thus remain in the locking-notch and prevent the slide from lifting, if the lever were not shifted by the sloping head *l³* of the latch-bar after each movement of the coin-slide.

The filling of the coin-chute prevents the eleventh coin from clearing the roll *e'* but compels it to remain in the position shown in Fig. 2, so that when the packages are exhausted and the coin-chute is full, the coin-slide is locked and the aperture *f'* is closed. So long as the coins are pushed past the roll *e* by the coin-slide, they leave the lever *n* free to swing inwardly, which is effected by the rising of the slide-bar *l* which unlocks the coin-slide and permits its spring to raise it clear of the coin-aperture.

A modification of the connection between the coin and the slide-bar, which operates in all respects the same as that in Fig. 1, is shown in Fig. 6, where the lower end of the lever adjacent to the path of the coin is lettered *n³* and is unprovided with any rolls. The lever is actuated by a roll *e²* upon a bell-crank *u* pivoted by a pin *t* upon the magazine *i*. The lower arm of the bell-crank carries a head *u'* fitted to a notch *v* in the slide-bar *l*; thus causing the descent of the slide-bar when the coin is pressed downward past the roll *e²*. The roll *e²* bears at its outer side against the tail of the lever *n³* and forces it outwardly against the sloping head *l³* of the slide-bar as the latter descends. Such movement of the lever carries it into the position shown in dotted lines in Fig. 6, with the locking-tooth *n²* in the notch *s* upon the slide-bar, as with the construction shown in Fig. 1. When the slide-bar is released by the passage of the coin, it is free to rise and its sloping head which then stands a little below the end of the lever *n³*, (which is represented in dotted lines) operates to push the lever laterally and retract the tooth from the locking-notch *s*.

The rolls *e'*, *e²* and *n'* are provided only to reduce friction, and the parts may be shaped to operate by direct contact, if desired.

The pivots *p* for the latch-arms *o'* lie in front of the magazine, and to bring the arms

within the magazine, when turned, they are attached to the rear sides of the crossbar *o*, as shown in Figs. 4 and 12.

5 A tongue p^2 extends downward upon the front of the magazine between the arms o' , to act as a stripper for the package *f* when the fingers *q* are drawn backwardly, as shown in Fig. 4^a, thus freeing the fingers from the package and permitting it to drop 10 into the bottom of the cover.

To prevent accidental displacement of the bottom package by jarring, the rear side of the magazine is made to slightly overlap the top of of such package, as shown in Figs. 15 3 and 4, so that it is held securely upon the tongue *q* until the latch is actuated.

Having thus set forth the nature of the invention what is claimed herein is:

1. In a vending machine, the combination, 20 with a vertical case, of a magazine having a latch pivoted at the bottom with finger projected forwardly, a slide-bar mounted movably upon the magazine with inclined end or tongue to engage such finger when releasing the packages, and means for actuating the slide-bar and the pivot-latch to release a package.

2. In a vending machine, the combination,

with a vertical case, of a magazine having a latch pivoted at the bottom with fingers pro- 30 jected forward and backward upon its upper and lower ends respectively, a spring for holding the lower finger in the path of the packages, a slide-bar mounted movably upon the machine with inclined end to engage the 35 forwardly projecting finger, and means for actuating the slide-bar and the pivoted latch to release a package.

3. In a vending machine, the combination, with a vertical case, of a magazine having a 40 latch pivoted at the bottom with vertical arms o' at its opposite ends connected by a cross-bar *o*, means for turning the latch, the pivots *p* upon the front of the magazine for the latch-arms o' and the tongue p^2 extend- 45 ed downward upon the front of the magazine between the latch-arms to act as a stripper for the package *f* when the latch is turned.

In testimony whereof I have hereunto set 50 my hand in the presence of two subscribing witnesses.

ANTHONY COSEGLIA.

Witnesses:

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THOMAS S. CRANE.