

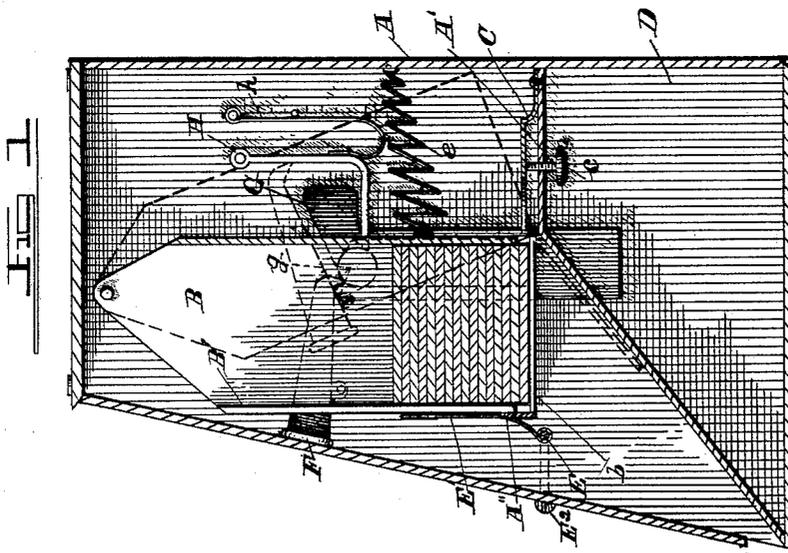
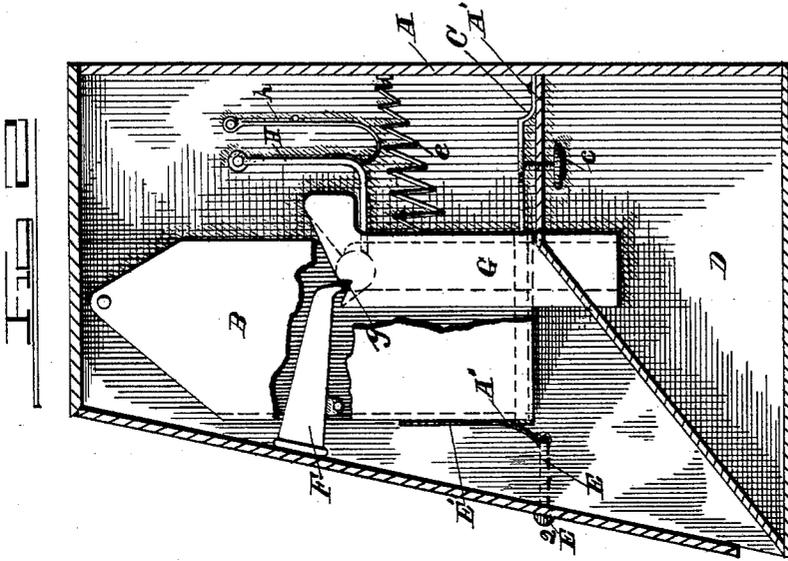
(No Model.)

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G. L. SLATER.
COIN CONTROLLED VENDING MACHINE.

No. 485,140.

Patented Oct. 25, 1892.



Witnesses

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Geo. Mansfield

Inventor

George L. Slater.
By his Attorneys
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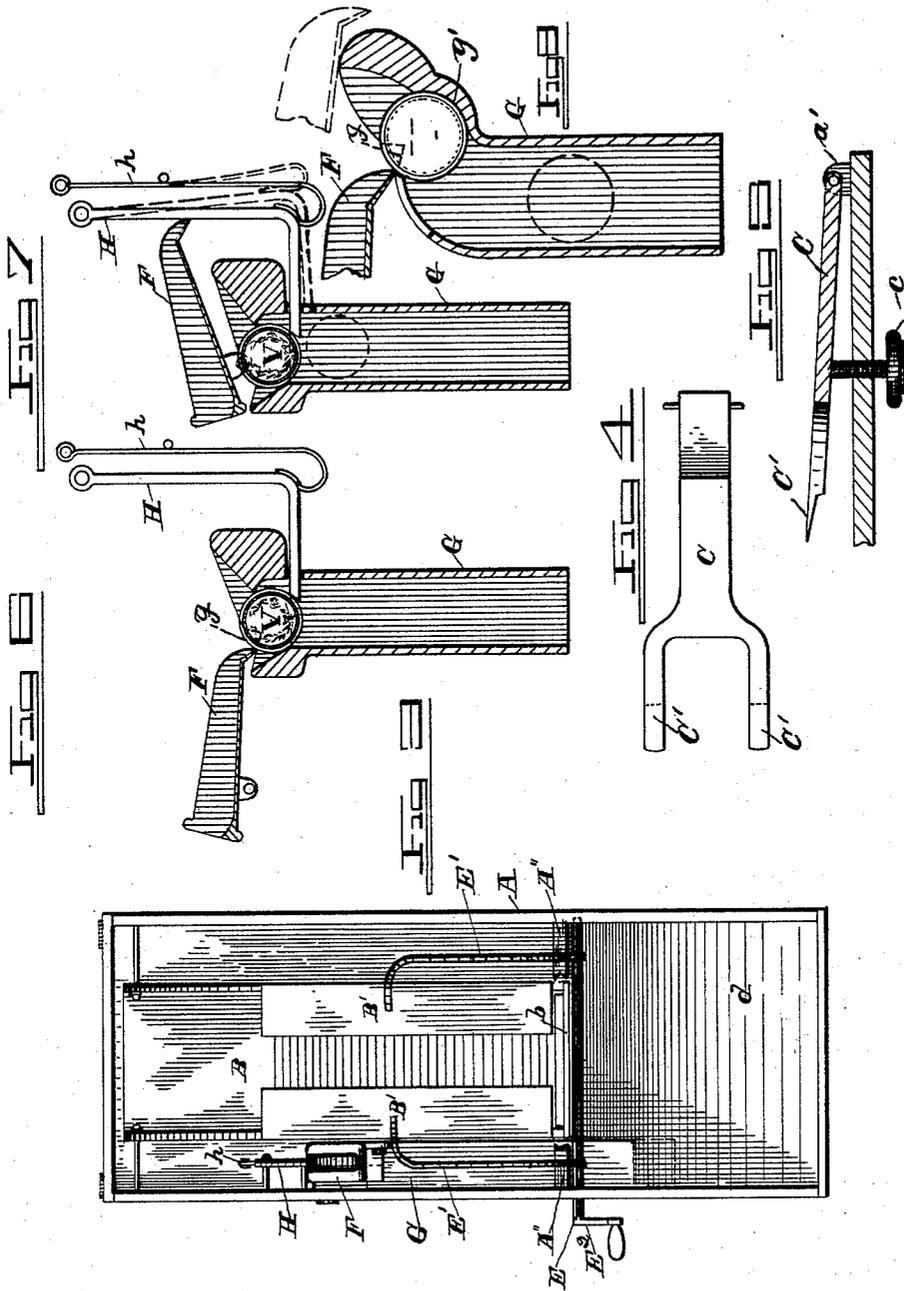
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UNITED STATES PATENT OFFICE.

GEORGE L. SLATER, OF BUCHANAN, MICHIGAN, ASSIGNOR TO LUCIUS G. TONG, OF SOUTH BEND, INDIANA.

COIN-CONTROLLED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 485,140, dated October 25, 1892.

Application filed June 18, 1892. Serial No. 437,194. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. SLATER, of Buchanan, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Coin - Controlled Vending-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention is an improved coin-controlled vending-machine; and its objects are to simplify the construction of such machines and to make the coin directly release the locking-pawl of the machine by using the coin to guide such pawl over the locking notch or keeper.

The invention consists in certain novel details of construction and combinations of parts set forth in the claims.

Referring to the drawings by letters, Figure 1 is a central vertical section through my improved vending apparatus, showing the position of the holder when locked in full lines, and when vibrated to discharge an article in dotted lines. Fig. 2 is a side elevation of the same with the casing-wall broken away, showing the locking devices. Fig. 3 is a front view of the machine with front wall of casing broken away. Figs. 4 and 5 are detail views of the ejector. Figs. 6 and 7 are enlarged detached views of the pawl and keeper coin-guides, showing the pawl in locked and unlocked positions, respectively. Fig. 8 is a detail view of a modification.

The casing A of the machine is of any suitable form, preferably rectangular, and within said casing is vertically suspended a swinging or oscillating holder B, which is preferably open at front, top, and bottom, but is provided with retaining-strips B' B' at its front edges, which extend nearly to the bottom thereof, and with flanges b b on the lower edges of its sides, which are adapted to sustain the contents of the holder. The space between the bottoms of flanges B' and flanges b is just sufficient to permit the bottom package in the holder to be pushed out of the

holder from beneath the others. The top or front of the casing may be removable, so as to allow ready access to the holder for replenishing or ascertaining its contents.

Just in rear of the lower end of holder B is a stationary ejector-plate C, which is mounted upon a transverse shelf A' in the casing in such position that when the holder is swung backward the ejector stands between the flanges b and will strike the rear edge of the lowest package in the holder and cause the same to be ejected therefrom. When the machine is to be used for envelopes, cards, or similar thin articles, the ejector is preferably pivoted at its rear end between ears a' a' on the shelf, and its front end is bifurcated and the bifurcations provided with top lips C', which will readily enter between the envelopes or packages, and thereby assists in the separation and ejection of the lowermost envelope from the holder. The ejector may be vertically adjusted by means of a set-screw c, as shown, to suit the thickness of the articles in the holder. Where, however, the packages are thick, the ejector may be a thick piece. A closed chamber D is formed in the casing below shelf A', and an opening is left in the front of the casing below the holder, so that articles ejected from the holder will fall upon the inclined front wall d of chamber D and can be readily removed by the purchaser.

A'' is a horizontal bar secured in and transversely of the casing in front of the holder in position to limit the outward swing of the holder and to prevent any packages therein slipping therefrom when the holder is locked.

E is a transverse shaft journaled in the sides of the casing beside bar A'', having an arm or arms E', which rest against the front of the holder and causes the latter to swing backward when the shaft is properly turned, as by means of a crank E² on its outer end. The holder is normally held in vertical position and returned to such position by a spring e, interposed between the back of holder and back of casing, as shown.

To the side of holder B, near the front edge thereof, is pivoted a channeled pawl F, into

which the coin can be dropped through a slot in the front of the machine. The inner end of said pawl, when the holder is vertical, rests in a notch *g* in a tubular or channeled coin-guide G, fastened to the side of casing in rear of pawl F and beside the holder. The said guide curves upwardly and rearwardly above notch *g* and below said notch is extended down into chamber D.

H is a coin-detent formed of a bent rod pivotally suspended by one end to the side of the casing in rear of tube G, and its lower end enters said tube through an opening therein below the notch *g* in position to prevent the passage of a coin through the tube. *h* is a spring to force said detent into the tube. When a coin is dropped into pawl-guide F, it will roll down the same and enter the upper end of guide G above notch *g*, and will then drop down in the latter until it is arrested by the end of detent H, which projects in its way, as shown in Figs. 6 and 7, in which position its upper edge stands above the notch *g*. When there is no coin in the tube, pawl F engages with notch *g* and the holder cannot be swung backward; but when the coin is stopped in the tube G, as described, if the holder is swung backward pawl F rides up on the edge of the coin, and is thereby lifted clear of an overnotch *g*, so that the holder can move backward sufficiently to cause a package to be discharged from its lower end by ejector C, as indicated by dotted lines on Fig. 1. After the pawl rides over the coin past notch *g* the farther backward movement of the holder (necessary to discharge a package) carries the pawl back until its end strikes the detent-rod, when the latter is forced backward, so as to release the coin and allow it to fall through guide G into the chamber D. When the holder swings back, it is locked as before until another coin is dropped into guide G. Until the coin falls the pawl cannot catch, and so the holder must be moved back sufficiently to discharge a package for each coin dropped therein. By this construction I do away with balance-levers, trips, &c., and make the coin in its descent serve as a trip for the pawl, insure the delivery of the goods, and prevent more than one package being discharged for a single coin.

In the modification shown in Fig. 8 the detent is omitted. The upper end of its coin-guide is curved, so that the coin will be arrested by the end of pawl F, resting in notch *g*, a slight pocket, shoulder, or depression *g'* being formed in the lower part of the tube at this point to prevent the coin slipping back or up. In this construction after the pawl has been kept from locking in notch *g*, as described, and passes the coin the latter drops on down.

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

1. The combination of the casing, the swinging holder therein, the adjustable stationary ejector-plate in rear of said holder, the stop-bar in front thereof, the rock-shaft for moving said holder backward, and the spring for returning the holder to original position, substantially as specified.

2. The combination of the swinging holder, the stationary ejector, the casing, the notched coin-guide attached to the casing, and the pawl attached to the holder, engaging said guide, all constructed and arranged to operate substantially as described.

3. The combination of the holder, the casing, the notched coin-guide attached to casing, and the slotted coin-guiding pawl attached to the holder and engaging said notched guide, substantially as described.

4. The combination, with a fixed and a movable part, of a coin-guide G, having notch *g*, and a slotted coin-guiding pawl, said guide and pawl being respectively connected to one of said parts, substantially as specified.

5. The combination of a fixed and a movable part with a coin-guide tube having a notch *g* and pocket *g'* opposite said notch, and a slotted coin-guiding pawl adapted to engage said notch, said pawl and guide, respectively, attached to one of said parts, substantially as described.

6. The combination of the casing, the swinging holder therein having retaining strips and flanges, the stop-bar, the armed rock-shaft, and the spring with the stationary ejector and the coin-controlled devices for locking or releasing said holder, substantially as described.

7. The combination of the casing, the swinging holder, and the ejector with the combined coin-guide and pawl attached to the holder and the combined coin-guide and pawl-keeper attached to the casing, all constructed and arranged to operate substantially as and for the purpose set forth.

8. A holder and casing, substantially as described, in combination with a combined pawl-keeper and coin-guide and a pawl connected, respectively, to one of said parts and a coin-detent for said guide, adapted to be released by the pawl, substantially as set forth.

9. The combination, with a fixed and a movable part, of a coin-guide G, having notch *g*, and a pawl, said guide and pawl being, respectively, connected to one of said parts, and the coin-detent in said guide, adapted to be released by said pawl, substantially as described.

10. The combination of the movable holder and casing with the coin-guide attached to said casing, having a notch, and a pawl attached to said holder, adapted to engage said notch when the holder is in normal position and be locked thereby, but to be released by a coin in said guide, and a coin-detent adapted to hold said coin in position until it is

moved back by the pawl after the holder is moved sufficiently to discharge the package, substantially as specified.

5 11. The combination of the holder, the casing, the notched coin-guide attached to the casing, and the coin-guide pawl attached to the holder and engaging said notched guide and the bent spring-controlled coin-detent, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE L. SLATER.

Witnesses:

JAMES DUSHANE,
H. H. HUMPHREY.