

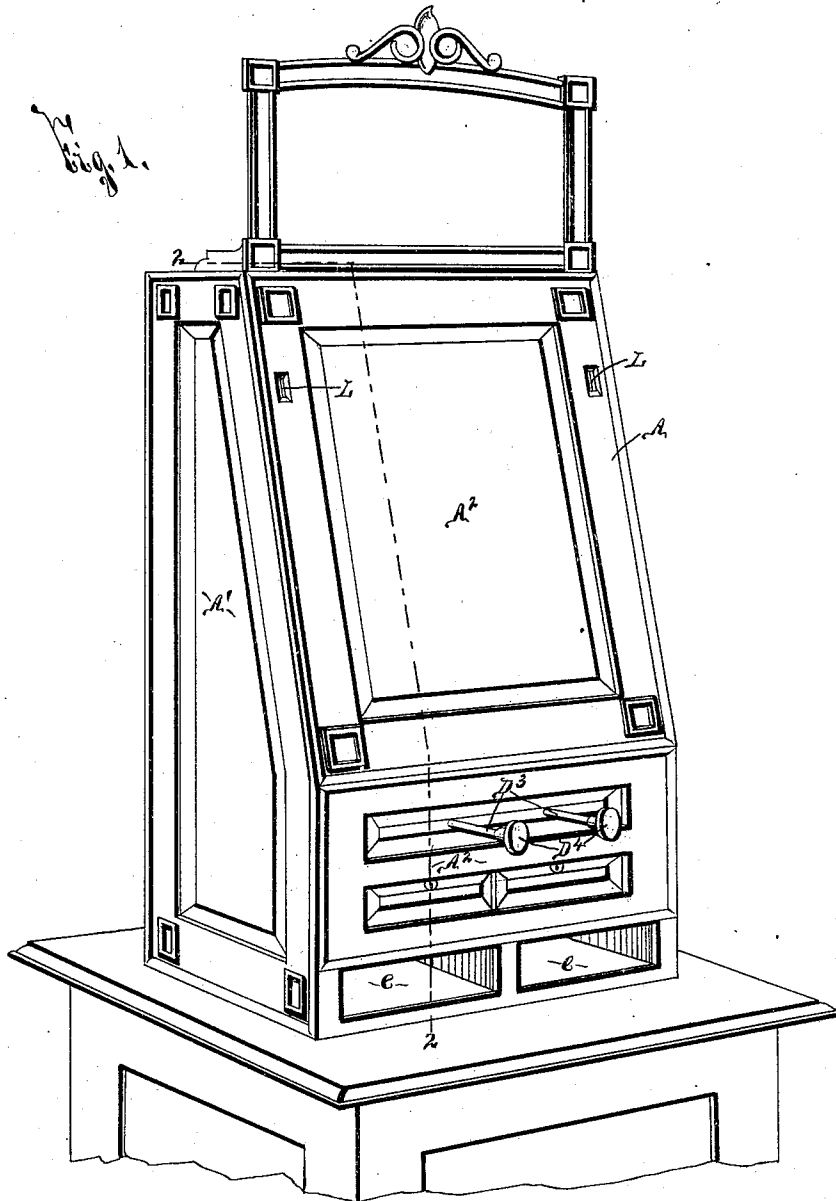
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4 Sheets—Sheet 1.

W. H. DUTTON.
COIN CONTROLLED MACHINERY.

No. 484,908.

Patented Oct. 25, 1892.



WITNESSES:

E. A. Weisburg,
H. C. Chase,

INVENTOR

William H. Dutton

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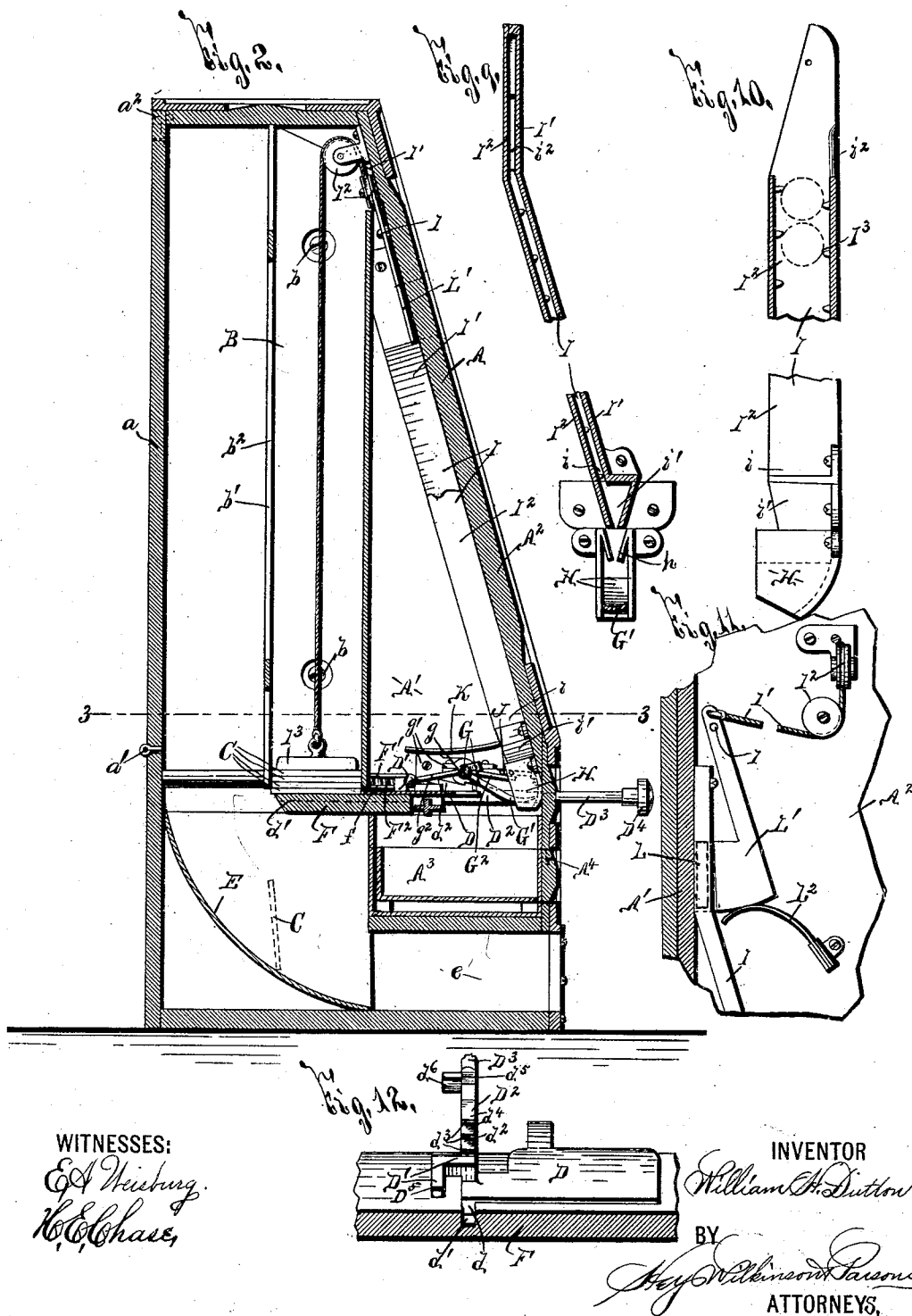
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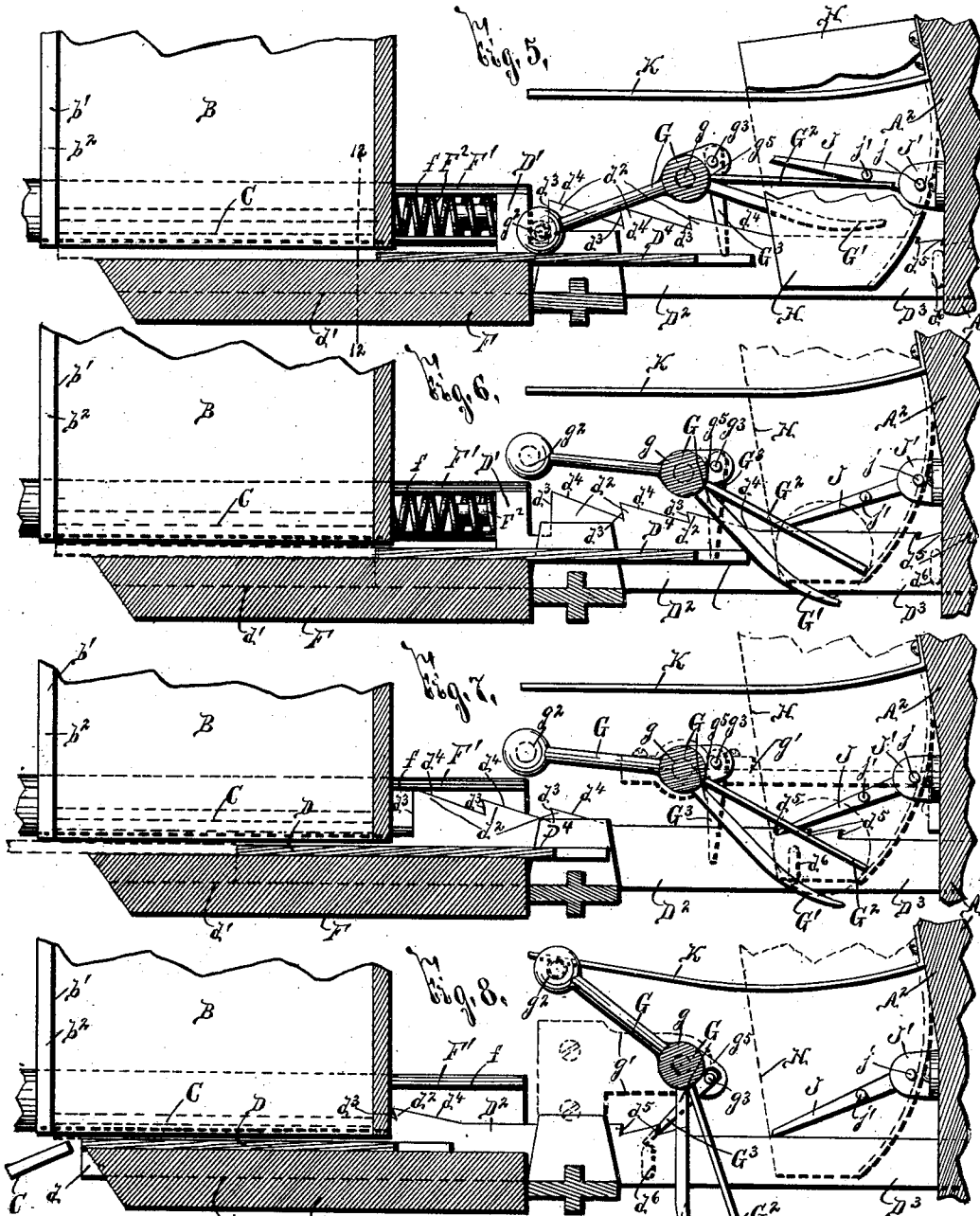
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UNITED STATES PATENT OFFICE.

WILLIAM H. DUTTON, OF ROCHESTER, ASSIGNOR TO THE BUFFALO AUTOMATIC MACHINE COMPANY, OF BUFFALO, NEW YORK.

COIN-CONTROLLED MACHINERY.

SPECIFICATION forming part of Letters Patent No. 484,908, dated October 25, 1892.

Application filed January 2, 1892. Serial No. 416,783. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DUTTON, of Rochester, in the county of Monroe, in the State of New York, have invented new and useful Improvements in Coin-Controlled Machinery, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to coin-controlled machinery, and has for its object the production of a simple and effective device for supplying the public with stamps upon the insertion of the proper coin.

To this end it consists, essentially, in an outer casing; a chute or feeding-guide within the casing having movable therein a series of pamphlets or other desired article, each containing or carrying a single stamp; a coin-chute having a series of spurs on its inner wall for rolling the inserted coin; a movable plunger at the base of the pamphlet-chute or feeding-guide for successively discharging the pamphlets therefrom; a lever for preventing the movement of the plunger into the chute; a coin-support beneath the coin-chute for rocking the lever out of engagement with the plunger; a second lever for preventing retrograde movement of the plunger, and an arm on the coin-support for rocking the second lever out of operative position.

The invention, furthermore, consists in the detail construction and arrangement of the parts, all as hereinafter more particularly described, and pointed out in the claims.

In describing this invention reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 represents an isometric perspective of my invention mounted upon a suitable support. Fig. 2 is a vertical sectional view taken on line 2 2, Fig. 1. Fig. 3 is a horizontal sectional view taken on line 3 3, Fig. 2, representing the discharge-plungers. Fig. 4 is a similar view to Fig. 3, showing both of the feeding-guides for the pamphlets removed and one of the plungers as in its extreme rearward or inner position, assumed when one of the pamphlets is discharged thereby. Fig. 5 is an enlarged detail sectional view repre-

senting the lower end of the pamphlet-chute or feeding-guide, the support beneath the same, the discharge-plunger, the lower end of the vertical coin-supports, the horizontal coin-support, and the levers for engaging the discharge-plunger, said plunger and coin-support being shown in their normal position and a portion of the vertical supports being broken out for illustrating one of the plunger-engaging levers. Fig. 6 is a view similar to Fig. 5, with the exception that the lower end of the vertical coin-supports is shown entirely by dotted lines, and a coin (represented by dotted lines) is shown as having depressed the horizontal coin-support and released from the plunger the lever for preventing rearward or inner movement thereof. Fig. 7 is a view similar to Fig. 6, with the exception that the lever for preventing retrograde movement of the plunger is shown as engaged therewith. Fig. 8 is a view similar to Fig. 7, representing the horizontal coin-support as forced to its extreme rearward position and the depending arm thereon as just on the point of disengagement from the arm on the plunger for elevating the lever for preventing rearward movement of the plunger. Fig. 9 is an edge view, partly in section, of the detached coin-chute and the vertical and horizontal coin-supports beneath the chute. Fig. 10 is an elevation, partly in section, of the parts as shown at Fig. 9. Fig. 11 is a detached detail view of the movable plate for closing the coin-inlet opening. Fig. 12 is an isometric detail sectional view, taken on line 12 12, Fig. 5, for representing the edge of the discharge-plunger; and Fig. 13 is an isometric perspective of one of the detached open pamphlets, showing the stamp in position therein.

My present invention is intended to supply a long-felt demand for a convenient, practical, and easily-operated coin-controlled machine for supplying persons with stamps when for various reasons their usual supply is exhausted and a sales agent is not conveniently near.

A represents the outer casing, which is of any desirable form, size, and construction, and is provided at the rear, Fig. 2, with a movable wall α , hinged at its lower edge at α' , and

secured in position by any suitable construction of lock a^2 .

B is a chute or feeding-guide removably supported within the casing A in any desirable manner, as by screws b .

Within the chute B are a number of pamphlets C, and in order that these may feed from the chute the same is unprovided with a bottom wall and is also unprovided with a top wall for permitting ready entrance of the pamphlets. The vertical wall b' of the chute is formed with a slot b^2 , through which the pamphlets may also be inserted, if desired.

Within the pamphlets C, as best seen in Fig. 13, I place a stamp s , although it is evident the stamp may be otherwise secured within the pamphlet, or that instead of pamphlets any other suitable support capable of carrying the stamps singly may be used.

My only reason for using pamphlets is that I further increase the income from the machine by printing advertising-matter upon the leaves thereof.

As readily seen at Figs. 3 and 4, I have shown two chutes or feeding-guides for the pamphlets, one-cent stamps being placed within the pamphlets in one of the chutes and two-cent stamps within the pamphlets in the other chute. It is evident, however, that one or any number of chutes B may be used, if desired.

D D are plungers movable beneath the open base of the chutes for discharging the pamphlets successively therefrom upon a guide E for conducting the same to chambers e , opening at the front of the machine. The plungers D D are preferably mounted upon a support F, and each is formed with a depending rib d , Fig. 12, movable in a way d' in the support D. Above the support F are spring-supports F' F' , each consisting of a cylindrical case having a longitudinal slot f at its front extremity. Within this case is a spiral spring F^2 , having its free end adapted to bear against a laterally-extending arm D' , which is formed upon the adjacent discharge-plunger D, is movable within a slot f in the spring-support F, and is provided with a rearwardly-extending lug D^5 , Fig. 12, passed within the end of the spiral spring.

Upon an examination of the foregoing drawings it will be noted that the discharge-plungers D D are movable backward and forward within and without a perpendicular to the forward inner wall of the chute B B for permitting the pamphlet next above said plunger to feed upon the support F, in position for discharge when the plunger is moved backwardly within the plane of the aforesaid perpendicular.

At the forward or outer edge of the discharge-plunger is an arm D^2 , provided with teeth d^2 , having their rear or inner faces d^3 substantially vertical and their front faces d^4 inclined forwardly. Extending forwardly from the arm D^2 is the plunger-rod D^3 , having its free extremity projecting beyond the

front wall of the outer casing A and provided with a hand-engaging portion D^4 .

G represents a lever pivoted at its central portion upon a rod g , having its opposite extremities supported by a central bracket or support g' , and oppositely-arranged brackets or supports on the inner faces of the opposite side walls A' A' of the outer casing A. The rear end or bar g^2 of this rod is of sufficient weight to drop downwardly into engagement with the teeth d^2 , Figs. 3, 4, and 5, for preventing rearward or inward movement of the plunger to discharge the stamp-containing pamphlets.

Upon the forward end of the lever G is the horizontal coin-support G' , movable between vertical coin-supports H, presently described. As the coin feeds down the chute I, also presently described, and between the vertical supports H, it encounters the horizontal support G' and depresses the same into the position shown at Fig. 6, thus elevating the rear end g^2 of the lever G out of engagement with the teeth d^2 upon the plunger and permitting the plunger to move backwardly, as shown at Figs. 7 and 8. As the coin descends down the chute I, presently described, its momentum would suddenly depress the horizontal coin-support without permitting the operation of the parts of my invention; but this undesirable result is obviated by a forwardly-extending arm D^4 on the discharge-plunger, which engages the coin-support after the same has moved to the position shown at Fig. 6.

J represents a lever hinged at j to a bracket J' upon the inner face of the front wall A^2 of the outer casing A, with its free end held by gravity in engagement with the top face of the plunger-rod D^3 for engaging teeth d^5 upon said plunger-rod when the same is moved inwardly or backwardly, as shown at Fig. 7, thus preventing return movement of the plunger until the same is forced inwardly or backwardly to its extreme limit, as shown at Fig. 8.

Upon the lever G is an arm G^2 , which is adapted to engage a laterally-extending lug j' upon the lever J and elevate the lever J out of engagement with the teeth d^5 to permit the forward movement of the plunger after its extreme inward movement. This engagement of the arm G^2 with the lug j' takes place only after the plunger has been moved inwardly to its extreme limit and is effected by the quick return of the lever G to its normal position.

At Fig. 7, as previously stated, I have shown the lever J in engagement with the teeth d^5 upon the plunger-rod, and by dotted lines at said figure and full lines at Figs. 3, 4, and 12 I have shown a lug d^6 upon the plunger-rod D^3 , which engages a depending arm G^3 , hinged at g^3 to the lever G, and rocks the lever G backwardly for discharging the coin therefrom and into engagement with a spring K, which is designed to forcibly return said lever to its normal position and is supported in

proximity to the lever G with one end secured to the front wall A² of the outer casing and the other arranged above the rear extremity g² of the lever G. The discharged coin passes downwardly into movable drawers A³ A³, Fig. 2, arranged beneath the horizontal coin-supports G' G' and adapted to be held in position by suitable locks A⁴, not necessary to herein illustrate or describe. The rocking movement of the lever G continues until the lug d⁶ is moved beyond the end of the depending arm G³, and at Fig. 8 I have shown the parts in their position assumed when said lug d⁶ is just on the point of passing from engagement with the arm G³, and it will be noted upon reference to said figure that the free end of the spring K is then forced upwardly beyond its normal position. (Illustrated at Figs. 5, 6, and 7.) It is therefore evident that the instant the lug d⁶ passes the end of the arm G³ the spring K aforesaid quickly returns the lever G to its normal position and the arm G² of the lever G engages the lug j of the lever J and elevates said lever J, so as to prevent engagement of the teeth d⁵ by said lever J upon the return movement of the plunger. It will be evident that the lug d⁶ readily passes on its return movement beyond the lever G³, as said lever is hinged and its upper end rounded for permitting the lever to swing forwardly, although said lever is prevented from backward movement by the engagement of its rear edge with the shoulder g⁵ upon the lever G, Figs. 3, 4, and 8. It is thus evident that the plunger D is prevented from rearward or inward movement unless the proper coin has depressed the horizontal coin-support G', and that after the depression of said coin the plunger is not free to return unless it is passed first to its extreme limit, that it is then prevented from further inward movement after the teeth d² have passed beneath the rear end g² of the lever G, and that until the teeth d² have so passed beneath said lever end g² the rear end of the discharge-plunger D is within the pamphlet-feeding chute or guide and prevents the pamphlet next above the same from feeding upon the support F in position for discharge by the plunger D.

The coin-chute I may be of any desirable form, size, and construction, but is preferably composed of two separable plates I' I², is formed of greater width than thickness, and is provided on the inner faces of its narrow sides with a series of projecting lugs I³, arranged alternately with each other for causing the coin to roll when passing down the chute, thus preventing the retraction of coins secured to a string and lessening the momentum of the coin.

Just beneath the exit i of the coin-chute is the tapered pocket i' for arranging the coin vertically, and just beneath said tapered pocket on opposite sides of the horizontal coin-support G' when in its normal position are the vertical coin-supports H for holding the coin in a vertical position. At the upper

end of these vertical supports are inwardly-inclining shoulders h for centering the coin when between said supports. The upper end of the coin-chute is open at i² and registers with an inlet-opening L.

In order that the user may be prevented from placing money within the machine when the pamphlets within the chute B are exhausted, I provide a cut-off plate L', hinged at l on the inner face of the front wall A² of the outer shell, with its lower end adapted to be moved over the coin-entering aperture L. A suitable connection l' is secured to the upper end of the lever L', passed over guides or pulleys l² l², and is connected to a weight or traveler l³, movable within the chute C.

The operation of my invention will be readily perceived from the foregoing description and upon reference to the parts, and it will be particularly noted that the same is simple, effective, and extremely practical and supplies a long-felt want for a device of this character. It is evident, however, that the detail, construction, and arrangement of the parts of my invention may be somewhat varied from that shown and described. Hence I do not herein wish to limit myself to such precise detail construction and arrangement. Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination, a coin-chute having an exit, vertical coin-supports H, having at their upper extremities inwardly-inclining shoulders h h for centering the coin between said supports, and a support G for the coin, supported normally beneath the shoulders h, substantially as and for the purpose set forth.

2. In combination, a coin-chute having an exit, vertical coin-supports H, having at their upper extremities inwardly-inclining shoulders h h for centering the coin between said supports, and a pivoted support G, having one extremity normally supported between the supports H and beneath the inclining shoulders h h and movable away from and between said shoulders h h, substantially as described.

3. The combination of a support, a plunger guided on the face of said support and formed with engaging teeth, a hollow spring-case mounted on said support at one side of the plunger and provided with a longitudinal slot in its wall, a spring within the spring-support, a projecting arm on the plunger movable in said slot and engaged by the spring, a coin-chute, and a hinged lever having one end adapted to engage the teeth of the plunger and prevent rearward or inner movement thereof and the other provided with a coin-support in the path of the coin, whereby the coin automatically depresses the coin-support and disengages the opposite end of the lever from the said teeth for permitting movement of the plunger against the action of the spring within said case, substantially as and for the purpose specified.

4. The combination of a movable plunger

having engaging teeth, a lever J, having one end adapted to engage the plunger-teeth for preventing retrograde movement thereof, a second lever formed with coin-support with which the coin is adapted to engage for rocking the lever downwardly, and an arm on the latter lever detachably engaging the former lever for normally rocking the same out of engagement with the plunger-teeth, substantially as and for the purpose herein described.

5. The combination of a movable plunger having engaging teeth, a lever J, having one end adapted to engage the plunger-teeth for preventing retrograde movement thereof, a second lever formed with a coin-support with which the coin is adapted to engage for rocking the lever downwardly, and an arm on said lever detachably engaging the former lever for normally rocking the same out of engagement with the plunger-teeth, and a spring supported within the casing and arranged with one end disconnected from the second lever and arranged in the path of movement of said lever for returning the same to its normal position, whereupon said lever forces the former lever out of engagement within the plunger, substantially as and for the purpose described.

6. The combination, with a casing, of a movable plunger having one end projecting beyond said casing, a series of teeth on the plunger, a pivoted lever having one end adapted to engage the teeth and prevent rear-

ward or inner movement of the plunger and the other provided with a coin-support, whereby the lever is disengaged from the teeth upon the plunger to permit said movement thereof, a second hinged lever for engaging the plunger and preventing return movement thereof, and an arm on the former hinged lever for elevating said second hinged lever out of operative position, substantially as and for the purpose described.

7. The combination of a movable plunger, a spring in proximity to said plunger, a hinged lever having one end adapted to engage the plunger and prevent retrograde movement thereof, a second hinged lever having a coin-support thereon, a depending arm on the second lever, and an arm on the plunger for engaging the depending arm and forcing said second lever against the action of the spring, said arm on the plunger being movable beyond said depending arm for permitting retraction of the hinged lever by said spring, substantially as and for the purpose set forth.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Rochester, in the county of Monroe, in the State of New York, this 8th day of December, 1891.

WILLIAM H. DUTTON.

Witnesses:

HAMPDEN HYDE,
ROY C. WEBSTER.