No. 896,767. PATENTED AUG. 25, 1908.

C. A. SHATTUCK.

COIN CONTROLLED BOX.

APPLICATION FILED JUNE 21, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

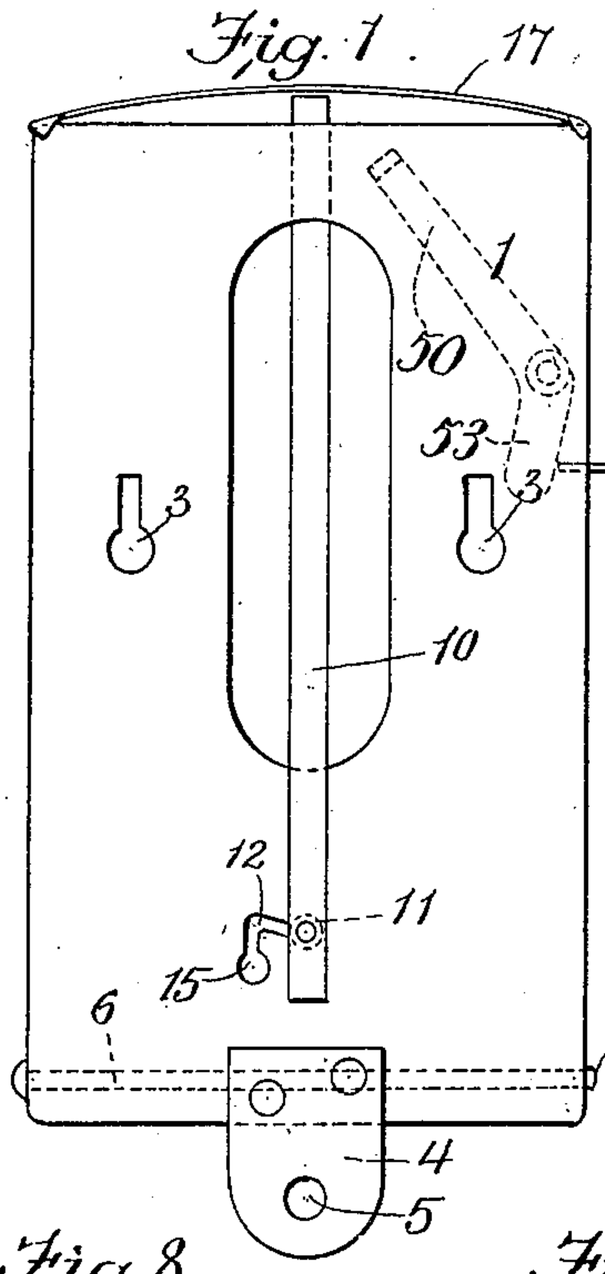


Fig. 2.

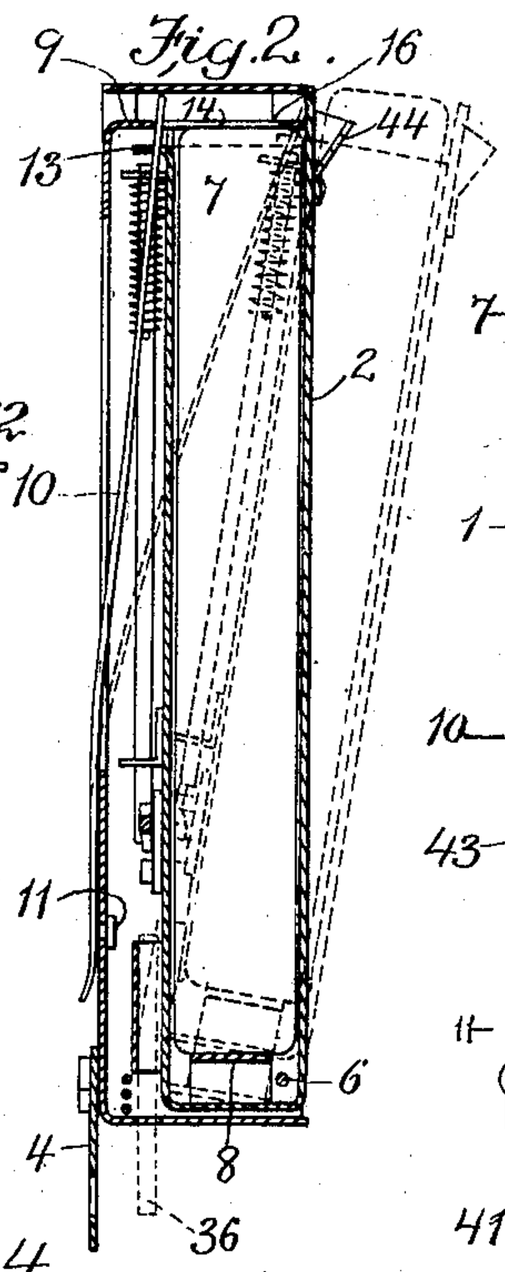


Fig. 3.

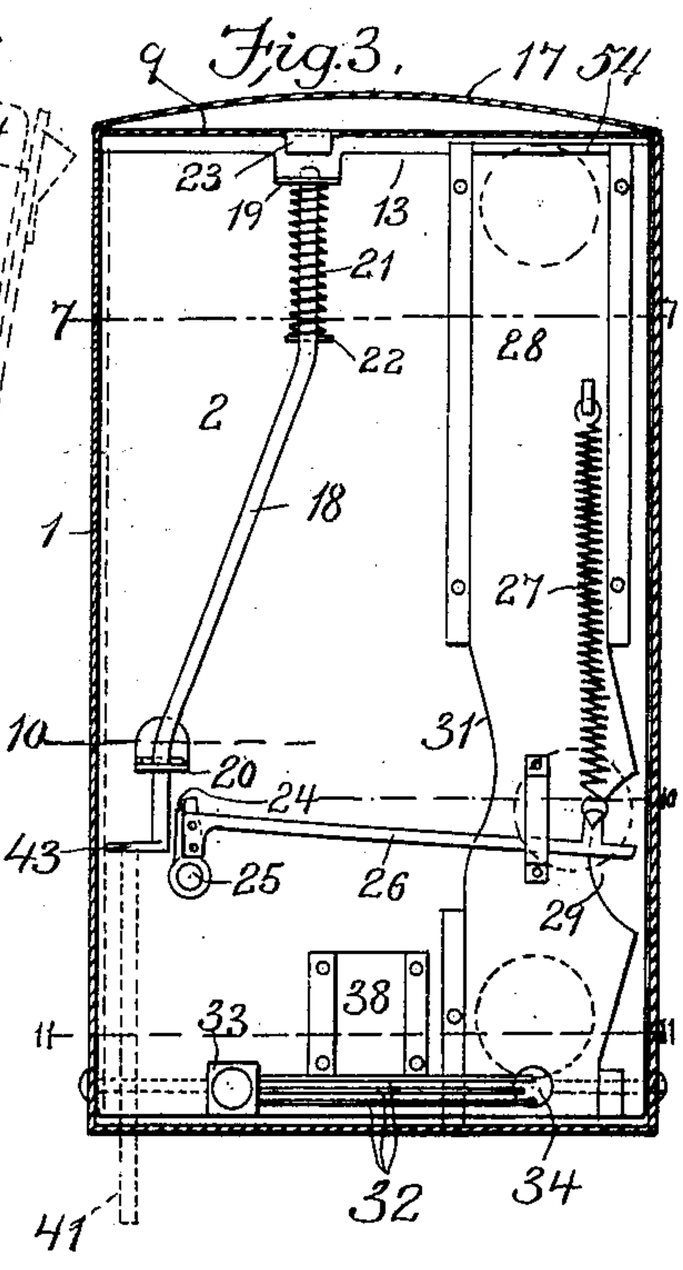


Fig. 8.

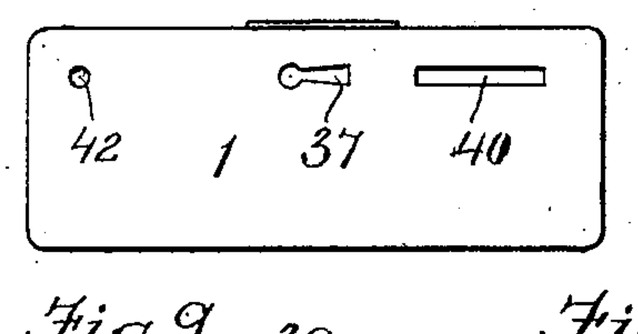


Fig. 4.

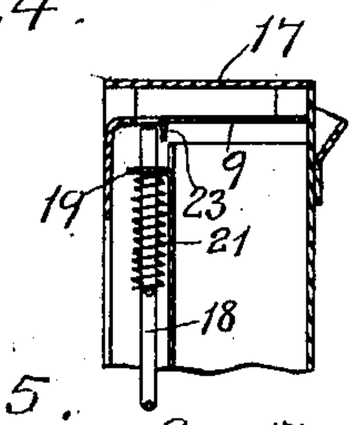


Fig. 6.

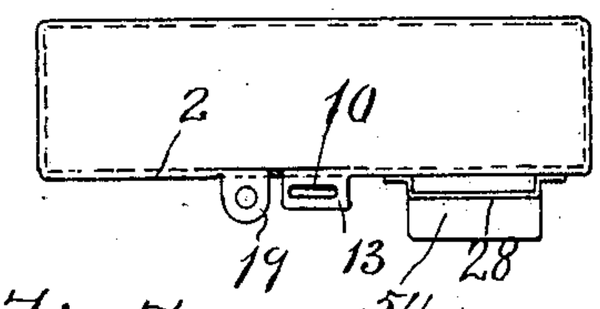


Fig. 9

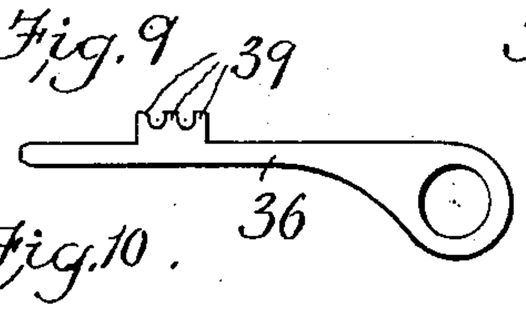


Fig. 10.

Fig. 5.

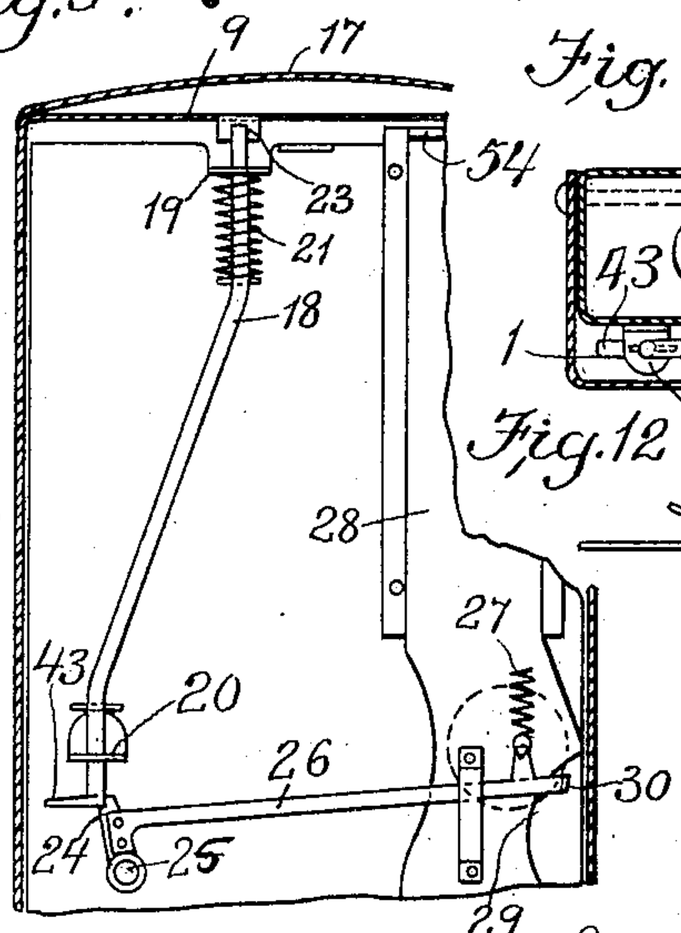


Fig. 7.

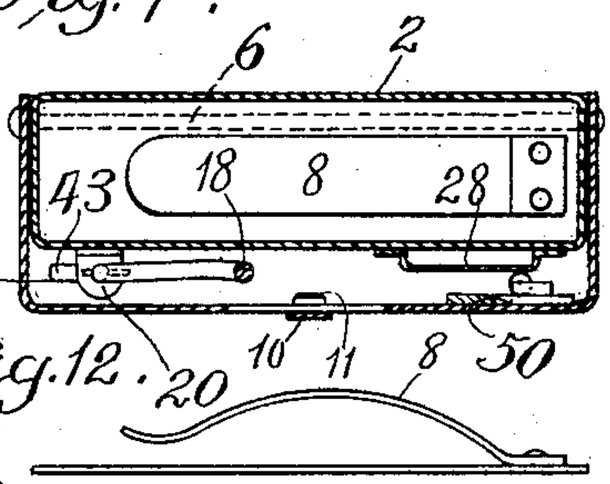
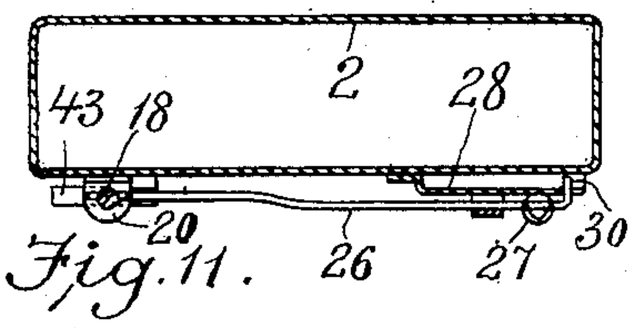
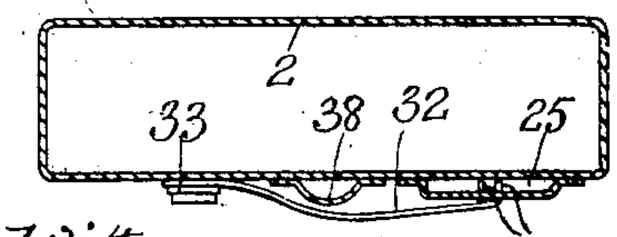


Fig. 12.

Fig. 11.





Witnesses.

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No. 896,767. PATENTED AUG. 25, 1908.

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COIN CONTROLLED BOX.

APPLICATION FILED JUNE 21, 1907.

2 SHEETS—SHEET 2.

Fig. 14

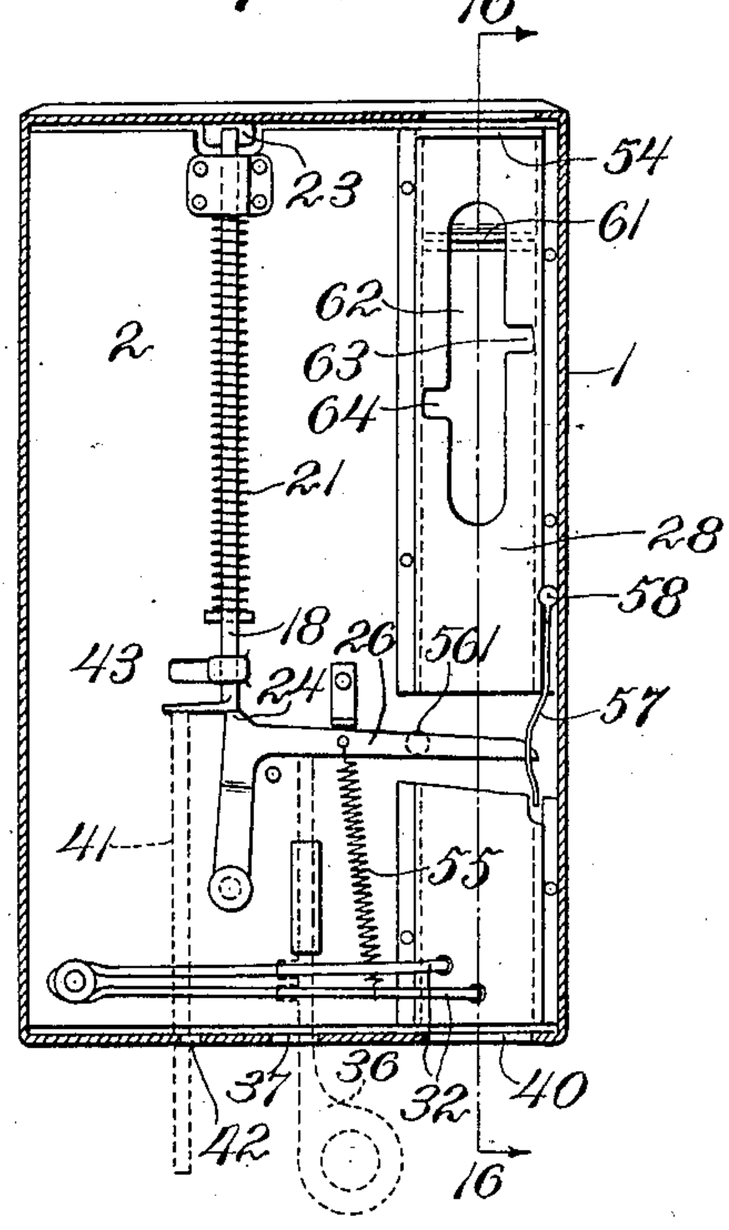


Fig. 15.

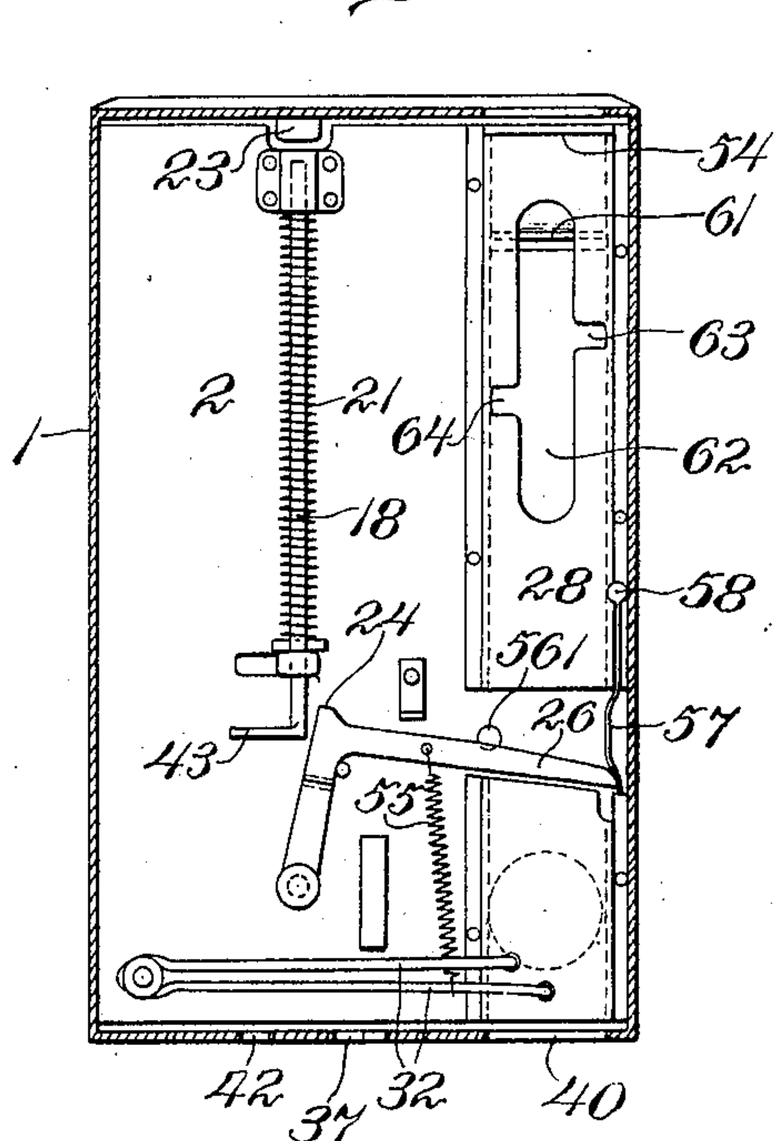


Fig. 13.

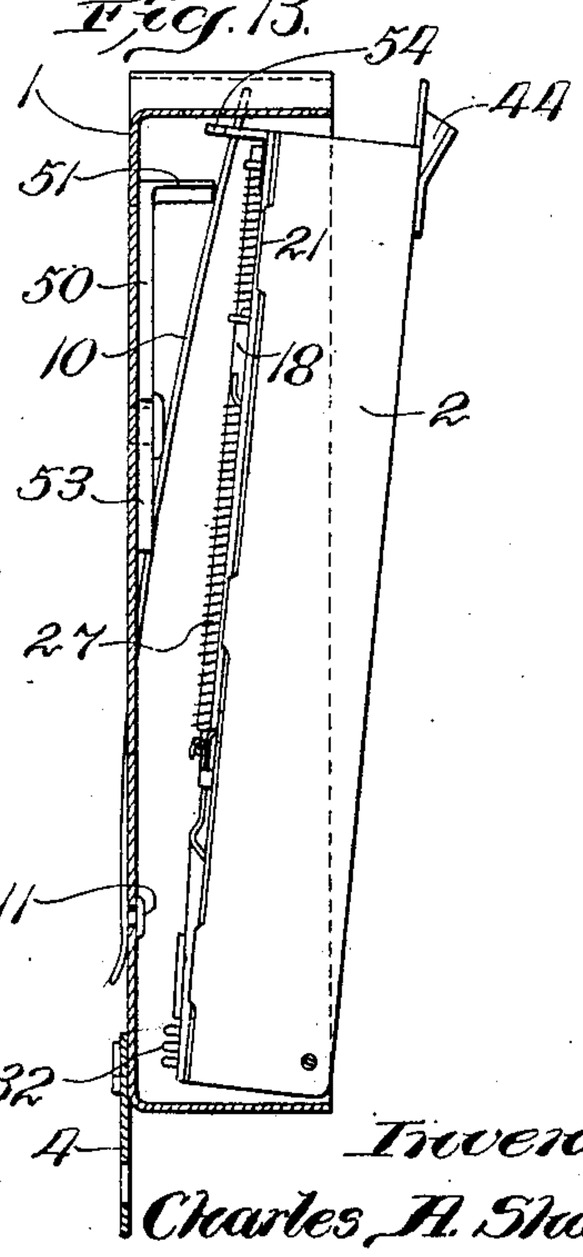


Fig. 17.

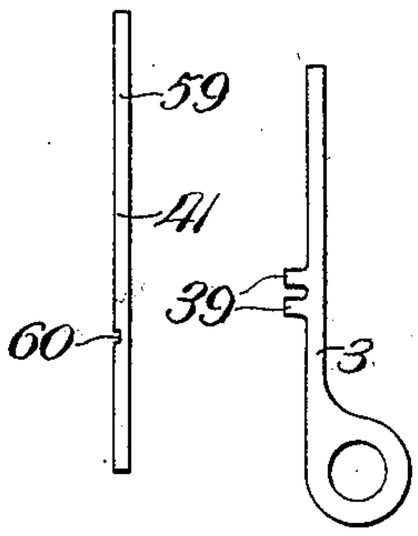
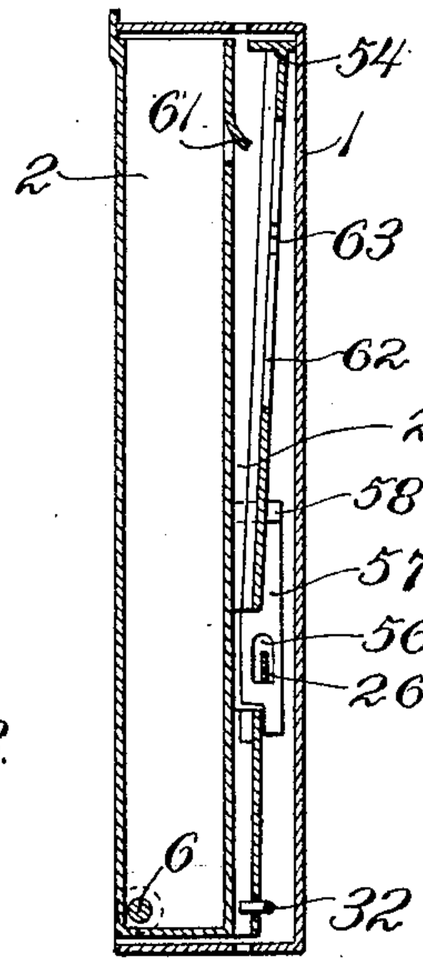


Fig. 18.

Fig. 16.



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UNITED STATES PATENT OFFICE.

CHARLES A. SHATTUCK, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF THREE-FOURTHS TO HARRY L. AYER, OF NEWTON, MASSACHUSETTS.

COIN-CONTROLLED BOX.

No. 896,767. Specification of Letters Patent. Patented Aug. 25, 1908.

Application filed June 21, 1907. Serial No. 380,019.

To all whom it may concern:

Be it known that I, CHARLES A. SHATTUCK, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Coin-Controlled Boxes, of which the following is a specification.

The present invention relates to coin-controlled receptacles, and has particular reference to boxes adapted to be secured on the backs of chairs in places of amusement, and to contain confectionery.

The object is to provide an especially simple and practical device of this kind, which will never get out of order, and to this end it is provided with a lock by which it is secured by an attendant at the time when the box is filled, and which can be released by the depositing of a coin when it is desired to remove the contents of the box.

Of the accompanying drawings,—Figure 1 represents a rear view of a box embodying the preferred construction of my invention. Fig. 2 represents a longitudinal section of the same. Fig. 3 represents a rear elevation of the inner receptacle, showing the outer casing in section. Figs. 4 and 5 represent fragmentary views similar to Figs. 2 and 3, but showing the coin-controlled lock in operative position. Fig. 6 represents a plan view of the top of the inner receptacle. Fig. 7 represents a horizontal section of the box on line 7 of Fig. 3. Fig. 8 represents an under plan view of the box. Fig. 9 represents an elevation of a key by the use of which a coin deposited in the box may be removed. Figs. 10 and 11 represent sections of the receptacle on lines 10 and 11 respectively of Fig. 3. Fig. 12 represents in elevation a spring placed at the bottom of the inner receptacle for projecting the contents thereof when the box is opened. Fig. 13 represents a sectional elevation of the box showing the parts in a different position. Figs. 14, 15 and 16 show sectional elevations of a different construction of the box. Figs. 17 and 18 show in elevation the devices for locking the box and releasing the coins.

The same reference characters indicate the same parts in all the figures.

The box consists of an outer casing 1 having a back, sides and ends but open at the front, and a receptacle 2 which consists of an inner box having a front and back, sides and bottom but open at the top. The back of the casing has key-hole slots 3 which can be slipped over the heads of screws or studs on the back of a seat, and an ear 4 perforated at 5 to receive a fastening for preventing lifting of the box from such studs or screws. Near the lower end of the box is a pin or rod 6 passing through the sides of the outer casing and the receptacle and headed at its ends, which serve as a pivot whereon the inner receptacle may swing back and forth into and out of the open front of the casing, its extreme forward position being shown by dotted lines in Fig. 2. The receptacle 2 is adapted to receive a package of confectionery 7, such as a cake of chocolate, which rests upon and somewhat displaces a spring 8 secured to the bottom of the receptacle. The spring presses the package 7 against the top 9 of the casing and forces it somewhat out of the receptacle when the latter is moved forward into the dotted-line position, thus placing the package where it can be easily grasped, and causing the latter to act as a stop holding the receptacle in its forward position.

For holding the swinging end of the receptacle within the casing, I provide a flexible spring bar 10 which at its lower end has a headed stud 11 contained in an angular slot 12 in the back of the casing and the upper end of which extends through a lug 13 on the rear of the receptacle and through a slot 14 in the upper end of the casing. Slot 12 has an enlargement 15 through which the head of stud 11 can be inserted or removed. The spring bar 10 yieldingly resists movement of the receptacle and checks such movement when its end abuts against the forward limit 16 of the slot 14. An arched cover plate 17 extends over the top of the casing to protect the projecting end of the bar 10.

18 is a locking bolt which is vertically slidable through lugs 19 and 20 upon the back of the receptacle, and is normally held in the retracted position shown in Figs. 2 and 3 by a spring 21 extending between the lug 19 and a pin 22 on the bolt. When projected, the bolt lies behind a stop 23 on the top piece 9 of the casing and prevents forward movement of the receptacle, this position being shown in Figs. 4 and 5. When once elevated into locking position the bolt 18 is held there by a latch 24 pivoted at 25 and having a shoulder adapted to extend under the end of the bolt when the latter is raised, and to lie beside

such bolt when lowered. This latch carries an arm 26 which is acted upon by a spring 27 that automatically raises the arm and tends to project the latch across the path and beneath the lower end of the bolt 18.

28 is a coin-guide or chute secured to the back plate of the receptacle and lying between the latter and arm 26. One side of the coin-chute is cut away to provide an opening 29 into which the bent end 30 of arm 26 extends, as shown in Figs. 3 and 10. When the bolt is projected, spring 27 raises this bent end 30 up to near the upper limit of the recess 29, the latch being then projected across the end of bolt 18 as shown in Fig. 5. Opposite the point then occupied by this end or toe 30, the coin-chute is deflected, its edge 31 forming an inwardly-inclined surface against which a falling coin strikes and by which the coin is thrown to the right into engagement with the toe 30, thereby lowering the latter and releasing the bolt.

Slots are formed in the usual manner in the cover plate 17 and the top and bottom plates of the casing for the insertion and emission of a coin, and the latter is prevented from falling out of the slot by one or more spring retainers 32, which are held at one end by a clamp 33, their opposite free ends being bent inward and extending through a hole 34 into the middle of the chute, constituting stop fingers 35 shown in Fig. 11. When it is desired to remove a coin resting on one of the stop fingers, a key 36 is inserted through a slot 37 in the bottom of the casing into a guide 38, the key passing between the back of the receptacle and the spring arms. It is then turned so that its wards 39 engage the spring arms and flex them outwardly, removing their ends 35 from the chute. Thereupon the coin is free to drop out through the slot 40 in the bottom of the casing.

After each performance in a place of amusement, the attendant visits the boxes, collecting the coins and filling the receptacles which have been emptied. He then locks the receptacles by inserting a rod 41 through a hole 42 in the bottom of the casing and engaging a lateral toe 43 on the bolt. Thereby the bolt is pushed up into locking relation with the stop 23 and is held there by the latch 24, which the spring 27 automatically throws over. When a coin is deposited, the bolt is unlocked in the manner previously described, and the customer then takes hold of a lip 44 on the front wall of the receptacle and draws the latter forward until stopped by the engagement of bar 10 with the end 16 of slot 14. Thereupon spring 8 raises the end of the package 7 where it can be grasped and removed. As soon as the package is removed, the receptacle is drawn back into the casing by the spring 10. When the arm 26 is moved from the position shown in Fig. 5 to that of Fig. 3, it is held there by the lower end of bolt 18 which thus holds the toe 30 of the bar away from the inset portion 31 of the chute, and permits the coin to drop down into engagement with the stops 35.

In order to show at once whether the box has been opened and the contents removed, I provide a means for preventing complete withdrawal of the inner receptacle into the casing. This means consists of a stop 50 shown in Figs. 1, 7 and 13, which is pivoted to the rear wall of the casing. Normally it lies beside the spring 10 and has a projection 51 which rests against the adjacent edge of the spring, the weight of the stop holding it in this position. When, however, the inner receptacle is unlocked and drawn forward, the upper end of the spring strip 10 also is bent forward and carried beyond the end of the toe 51. Thereupon the latter falls behind the spring bar and arrests the same. Thus after the customer has withdrawn the package of confectionery and let go of the receptacle, the latter is retracted until the spring bar strikes the stop when the parts are arrested as shown in Fig. 13. This enables the attendant to see at a glance that the box has been opened and the contents removed; and saves the time and trouble of trying each box to see if the same is unlocked. After recharging the box with a new package of confectionery, the attendant inserts a narrow instrument 52 through a small hole in the side of the casing and presses against an arm 53 projecting from the stop lever 50, as shown in Fig. 1. This pressure removes the stop projection 51 from behind the spring bar and allows the latter to withdraw the receptacle entirely within the casing. The attendant then locks the box as hereinbefore described.

In order that a coin may not be deposited by mistake after a box has once been opened and the contents removed, a lip or plate 54 is attached at the rear side of the coin chute, this lip being of sufficient length to lie under and obstruct the slot formed in the top of the casing to receive the coin. Thus when the box is partially retracted after being emptied, it is impossible for a prospective purchaser to deposit a coin without getting any goods therefor.

In Figs. 14, 15 and 16, is shown a construction whereby the resistance which must be overcome by the coin in tripping the latch is lessened. Here the latch 24 and latch-arm 26 instead of being drawn upward and held so as to lock the bolt 18, are drawn in the opposite direction by a spring 55. When this spring is allowed to operate, it draws the latch out of engagement with the bolt and allows the latter to be retracted as shown in Fig. 15. When in locking position, the outer end of the latch-arm 26 projects through a slot 56 in a detent 57, which consists of a spring strip fastened to a post 58 and having a por-

tion lying free beside the coin chute. The latter is made in two parts which form a recess or gap across which the coin passes in its fall. The portion of the spring detent with which the latch-arm engages, is offset and extends a slight distance into this recess. As the coin falls, it strikes a pin 561 at the opposite side of the gap, if it is of sufficient width, and is thereby thrown against this offset portion of the detent, forcing it away out of engagement with the latch-arm, releasing the latter and allowing it to be pulled down by the spring 55, so as to remove the latch 24 from engagement with the locking bolt. It will be seen that by this construction, the only resistance to be overcome by the coin is the friction of the arm against the detent and the very slight resistance of the latter to bending. These resistances combined are slight as compared with that offered by the construction shown in the preceding figures, wherein the coin overcomes the upward tension of spring 27 and the friction of the end of bolt 18 against the latch 24. With the construction of Figs. 14 and 15, it is possible to have a wider bearing surface on the latch whereby the latter is enabled to retain the bolt projected with greater security. With this construction when locking the receptacle, it is necessary to push upward on the bolt and latch-arm separately. The bolt is raised by a rod 59 similar to the rod 41 but having a notch 60 in one side. This notch is so located that when the rod is inserted far enough to raise the bolt 18 into locking position, the notch at the level of the bottom of the box thus can be moved sidewise so as to be held temporarily by the edge of the hole 42, as shown in Fig. 14. After the rod has been inserted and thus secured, the key 36 is passed through the key hole 37 and when inserted far enough to lie beside the spring coin retainers 32, its end which is made especially long for this purpose bears against the under side of arm 26 and raises the latter far enough to throw the latch beneath the end of the bolt. The key is then turned to withdraw the retainers 32 and release the coin, after which both the key and rod are withdrawn.

In order to prevent fraudulent opening of the box by an insertion of wire, a long pin or other instrument to release the detent 56, I form a lip 61 by cutting and bending out a tongue from the back of the box into the chute. This lip or tongue extends from one side to the other of the chute, and so far into the latter that a long instrument inserted into the receiving orifice of the chute, will be deflected too far to emerge into the recess where the detent lies. The back of the chute also is slotted at 62 with lateral notches 63 and 64, extending entirely to the sides of the chute, so that the end of the instrument deflected by the lip must either pass through the slot or notches, or be arrested by the edges thereof, so that it can not be bent and guided by the back of the chute after having been deflected by the lip sufficiently far to be brought into engagement with the detent.

I claim:—

1. A box comprising a casing, a holder therein, a normally and automatically retracted lock for retaining the holder in said casing, and a latch for holding said lock projected, said latch being automatically tripped by a coin to release the lock.

2. A box comprising an outer casing, an inner receptacle, a bolt for locking said receptacle within the casing, a latch for retaining said bolt in locking position, a coin guide, an arm positively connected with the latch, and means engaged with said arm for holding the latch in operative position adapted to be rendered inoperative by a falling coin to permit disengagement of the latch from, and release of the bolt.

3. A box comprising an outer casing, an inner receptacle, pivoted adjacent one end thereof within the casing and adapted to swing outwardly therefrom, a bolt for locking the other end within the casing, a spring tending to unlock the bolt, and a latch engageable with the bolt when the latter is projected to hold it locked, said latch being automatically and positively displaceable to release the bolt when tripped by a falling coin.

4. A box comprising an outer casing, an inner receptacle, a bolt for locking said receptacle within the casing, a latch for retaining said bolt in locking position, a coin guide formed with an opening, an arm positively connected with and extending from said latch into proximity with the guideway adjacent the opening, a detent for the arm beside the opening arranged to be struck by the coin, when the latter passes the opening, and means tending to disengage the latch from the bolt.

5. A box comprising an outer casing, an inner receptacle, a bolt for locking said receptacle within the casing, a latch for retaining said bolt in locking position, being pivoted adjacent the end of the bolt to lie beside the latter when retracted and abut against the end of the same when projected, a coin guide having a lateral opening, a detent beside said lateral opening, an arm positively connected with and extending from the latch having its end engaged with said detent, and a spring tending to depress the end of said arm and move the latch out of the path of the bolt.

6. A coin-controlled box, comprising an outer casing an inner receptacle connected to the casing so as to be partially removable therefrom, a coin-governed lock for securing the receptacle in the casing, a slot in the casing for the admission of a coin to release the

lock, and a stop moved by the receptacle when the latter is partially withdrawn from the casing to obstruct said slot.

7. In a coin-controlled box, a casing, a coin chute within the casing open at both ends, and a coin retainer comprising a spring member extending into the chute and retractable to permit the coin to fall out.

8. In a coin-controlled box, a casing, a coin chute within the casing open at both ends, a coin retainer comprising a plurality of spring arms extending into the chute and retractable to permit the coin to fall out, and a key adapted to be inserted in the casing to withdraw the retainer from the chute.

9. In a coin-controlled box, a coin-controlled lock, a coin chute or guide for conducting a coin to operate said lock, the chute having an opening in one side, and a deflector extending into the chute from the side thereof opposite to such opening and partially obstructing the chute, whereby a wire or the like inserted in the chute orifice will be deflected and caused to pass out of such opening.

In testimony whereof I have affixed my signature, in presence of two witnesses.

CHARLES A. SHATTUCK.

Witnesses:
A. C. RATIGAN,
ARTHUR H. BROWN.