

(No Model.)

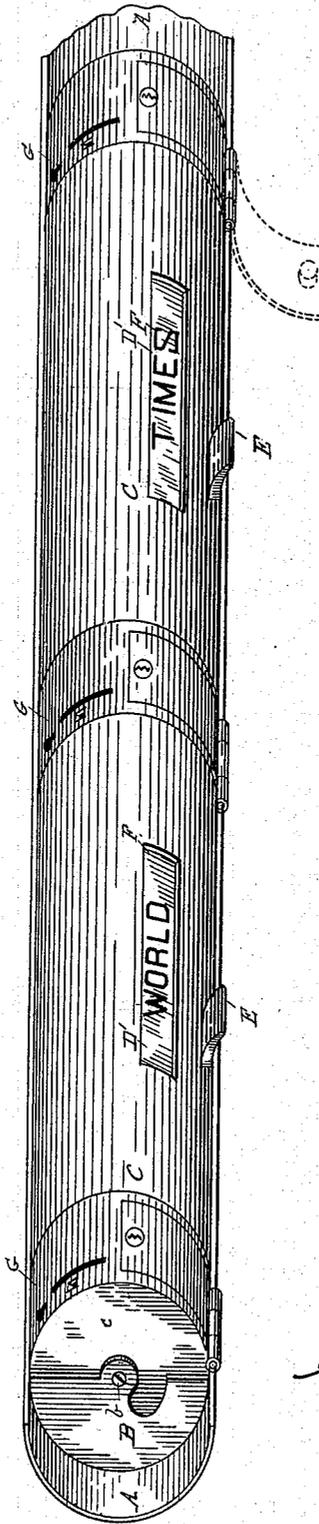
4 Sheets—Sheet 1.

A. WILSON.  
COIN CONTROLLED VENDING MACHINE.

No. 552,602.

Patented Jan. 7, 1896.

Fig. 1.



WITNESSES:  
*Herbert J. Hindes*  
*W. A. Dille*

INVENTOR  
*Andrew Wilson*

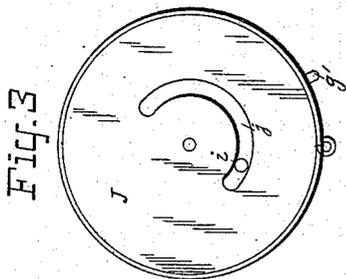
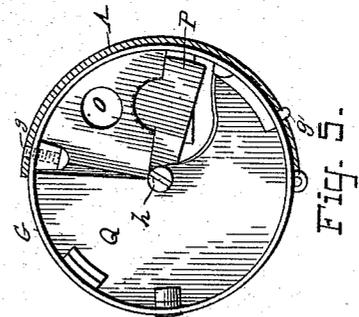
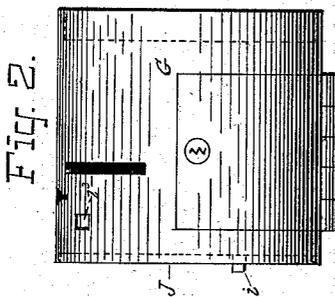
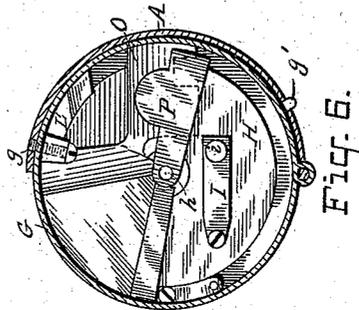
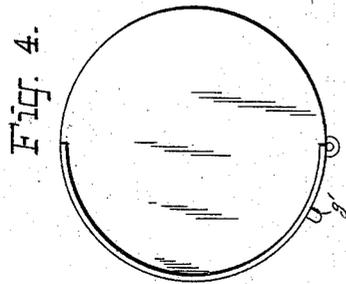
(No Model.)

4 Sheets—Sheet 2.

A. WILSON.  
COIN CONTROLLED VENDING MACHINE.

No. 552,602.

Patented Jan. 7, 1896.



WITNESSES:  
*Arthur J. Hindes*  
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(No Model.)

4 Sheets—Sheet 3.

A. WILSON.  
COIN CONTROLLED VENDING MACHINE.

No. 552,602.

Patented Jan. 7, 1896.

Fig. 15.

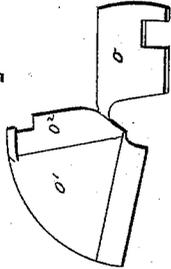


Fig. 16.

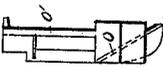


Fig. 13.

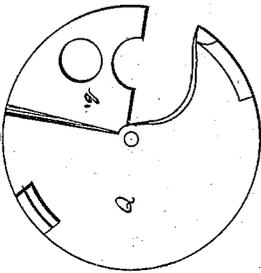


Fig. 17.



Fig. 14.

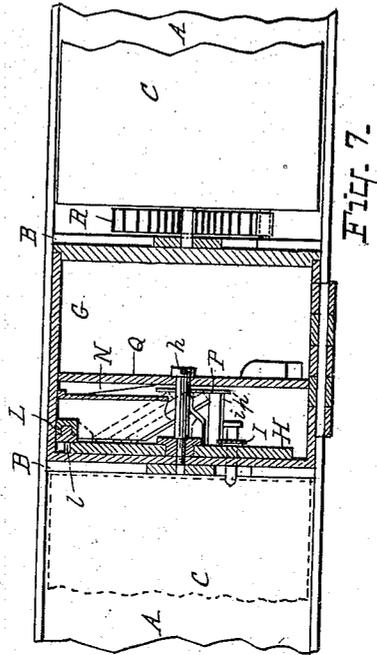


Fig. 7.

Fig. 8.

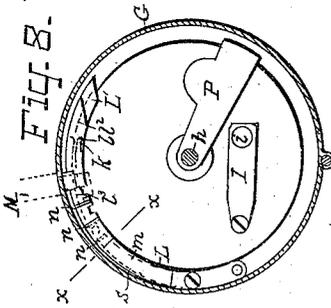


Fig. 11.

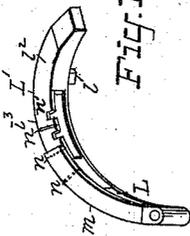


Fig. 12.



Fig. 10.

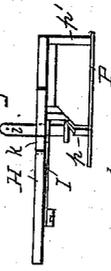
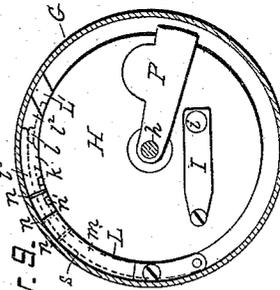


Fig. 9.



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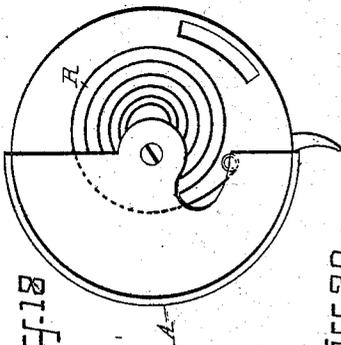
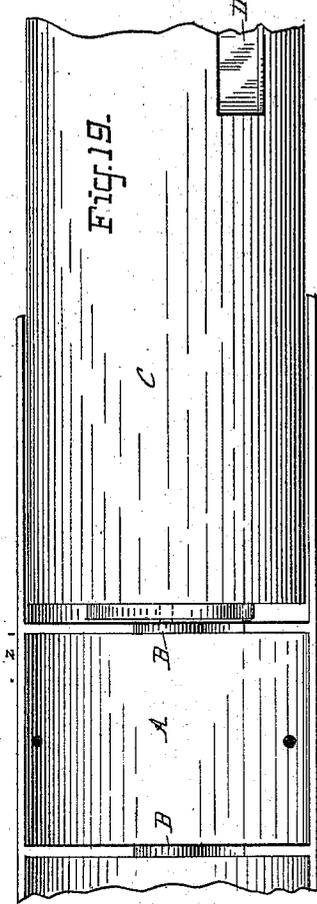


Fig. 18

WITNESSES:  
*Herbert J. Hinder*  
*W. A. Neilly*

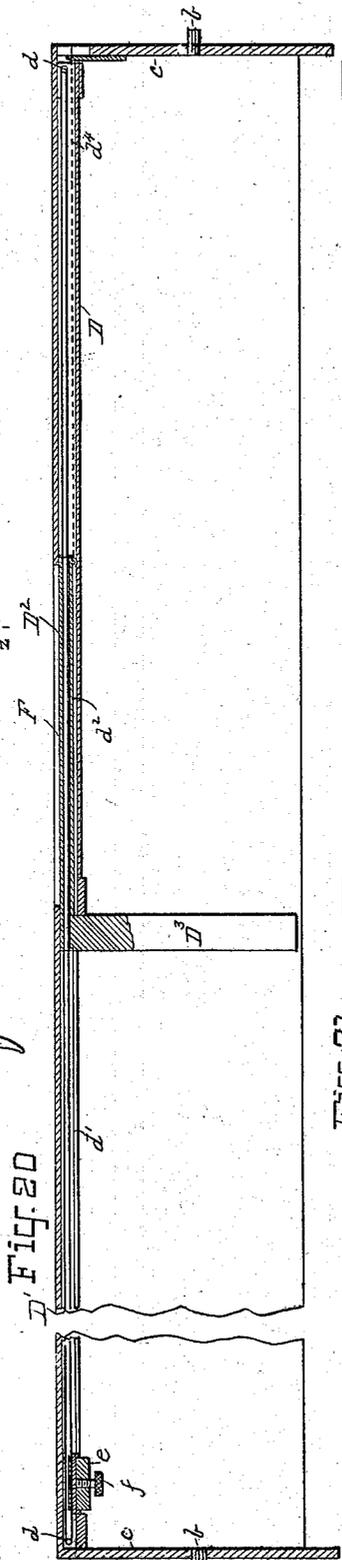


Fig. 20

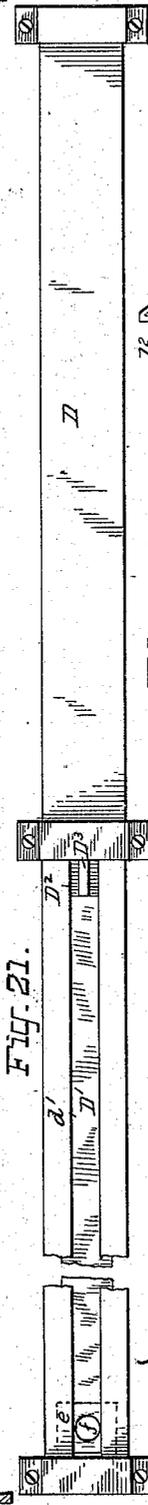


Fig. 21

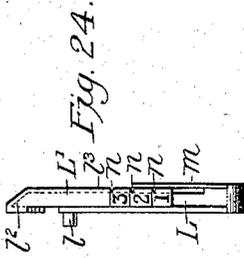


Fig. 24

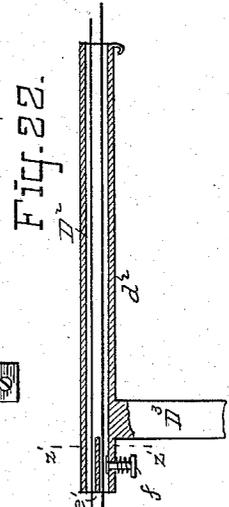


Fig. 22

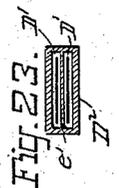


Fig. 23

INVENTOR  
*Andrew Wilson*

# UNITED STATES PATENT OFFICE.

ANDREW WILSON, OF NEWARK, NEW JERSEY.

## COIN-CONTROLLED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 552,602, dated January 7, 1896.

Application filed May 1, 1895. Serial No. 547,722. (No model.)

To all whom it may concern:

Be it known that I, ANDREW WILSON, of Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Coin - Controlled Vending-Machines, of which the following is a specification.

The class of vending-machines to which my invention relates is that wherein a merchandise-case intended to contain but one article at a time is controlled by a coin-controlled lock, so that the case may be opened and its contents removed by putting the appropriate coins in the lock; and the particular improvements which I have made are in the form of the case, the mechanism whereby the contents of the case is announced, and the mechanism of the lock, the details of all of which are set forth in the succeeding portions of this specification.

In the drawings, Figure 1 is an elevation of two merchandise-compartments and three locks arranged in a back frame. Fig. 2 is a front view of a lock-case detached. Fig. 3 is a view of the left-hand end of the lock-case, and Fig. 4 is a view of the right-hand end. Fig. 5 is a view of the lock with the end shown in Fig. 4 removed, and showing the back frame in section. Fig. 6 is a view of the same with the dividing-diaphragm Q removed. Fig. 7 is a longitudinal vertical sectional view of a lock and portions of two cases taken on the central line thereof. Fig. 8 is a view of the lock similar to Fig. 6, but showing the coin guide and rest removed and with the latch dropped into locking engagement with the disk H. Fig. 9 is a similar view with the latch raised into its normal position. Fig. 10 is a top view of the disk H and its attachments. Fig. 11 is a perspective view of the latch. Fig. 12 is a cross-sectional view of the latch taken on the line *xx* of Fig. 8. Fig. 13 is a side elevation of the diaphragm Q. Fig. 14 is a top view of the same. Fig. 15 is a side elevation of the coin guide and rest. Fig. 16 is a front elevation, and Fig. 17 is a top view thereof. Fig. 18 is an end view taken on the line *zz* of Fig. 19, showing the back frame and bracket, spring and end of the lid. Fig. 19 is a front view of the same with a portion of the back frame. Fig. 20 is a longitudinal sectional view of the lid, announcement-band

shifter and cover. Fig. 21 is a back view of the same, omitting the lid. Fig. 22 is a modification wherein the band-shifter and cover are combined in one piece, and a spring-pin is used in the shifter instead of a screw; and Fig. 23 is a sectional view of the same on the line *z'z'* of Fig. 22. Fig. 24 is a front view of the latch, showing the graduated scale thereon.

Similar reference-letters designate similar parts in all the figures.

A is the back or frame, upon which the other parts are mounted. It may be a longitudinal section of metal tubing, as shown, or a strip of wooden molding provided with a suitable groove to correspond with the inner curve of the tubing shown may be employed. To this back are secured brackets B B, in which are formed the pivot-centers on which the lid C swings. This lid C is also formed of a longitudinal section of slightly more than one-half of a metal tube, of a diameter which will allow it to revolve within the recess of the back A when swung therein. It is provided with disk-like ends *cc*, from which the pivots *b b* enter the brackets B B. This lid is hung so that it will revolve upon its pivots within the casing A, exposing the interior of the case, so that articles may be placed in or removed from it. The lid is also provided with a suitable handle E, which serves to open and close it and also acts as a stop to its upward or downward swing by striking the edges of the back A.

In the front of the lid is an announcement-opening F. A sheath D is fastened upon the inner side of the lid, passing behind the opening F, and acting as a guide and covering for the announcement strip and card. At either end of this sheath is a pin *d*, around which is looped an endless band D', bearing descriptions of the articles which the case is intended to contain. By sliding the band around the pins *d d* its various parts may be made to pass before the opening F, and in this way different announcements may be made through said opening without removing any part of the mechanism. A collar *e*, provided with the clamping-screw *f*, is placed around the rear half of the band, the head of the screw projecting through the slot *d'* in the sheath D, and by turning down the screw *f* the col-

lar may be made fast to the band, which can then be moved around its pins into any desired position.

In front of the band  $D'$  is a cover  $D^2$ , which is adapted to slide within the sheath  $D$ , and, when drawn forward, to cover the opening  $F$ . It has a back  $d^2$ , which straddles the band  $D'$  and carries the pin  $D^3$ , projecting through the slot  $d'$ , which back  $d^2$  gives steadiness of movement to the cover.

One end of an elastic band  $d^4$  is attached to the cover  $D^2$  and the other end to the lid  $C$ . (See dotted lines, Fig. 20.) This elastic serves to draw the cover  $D^2$  in front of the opening  $F$ , covering the band  $D'$ .

When an article—for instance, a newspaper—is placed in the case, the pin  $D^3$  is moved toward the left-hand end of the case, to make room for the newspaper, carrying the cover away from the opening  $F$  and exposing the announcement upon the band  $D'$ , and the cover will be retained in this position while the newspaper remains in the case, but, upon the newspaper being removed the elastic  $d^4$  will draw the cover back behind the opening  $F$ , covering the announcement upon the band  $D'$ .

I will now describe the locking mechanism of the machine.

The mechanism of the lock is contained within the case  $G$ , which is attached by suitable fastenings  $g g'$  to the back frame  $A$  beside the lid  $C$ . Upon the center pin  $h$  revolves a disk  $H$ , provided with a pin  $i$ , held down by the spring  $I$ , which pin, projecting through the slot  $j$  in the end  $J$  of the lock-case, is fastened to the end  $c$  of the lid  $C$ , so that the disk  $H$  shall move in unison with the lid  $C$ , but can be detached therefrom by springing out the pin  $i$ . In the edge of the disk  $H$ , I form a recess  $k$ , the diameter of the disk being slightly greater behind the recess than in front of it.

A latch  $L$  is pivoted to the inside of the lock-case and has an arm  $l$ , which rides on the edge of the disk, which can revolve under it from right to left, but will be stopped in the opposite motion by the arm  $l$  falling into the recess  $k$  if the point of the latch is unsupported. The latch  $L$  is provided with the sliding extension  $L'$ , having the portion  $l^2$  embracing the end of the latch  $L$  and provided with the rack-bearing extension  $l^3$ . A spring  $S$  (shown by the dotted lines in Figs. 8 and 9) presses down the latch by bearing on the arm  $l$ . The relative positions of the latch and extension are retained by the spring-detent  $m$ , engaging with the recesses  $n$ , and the relative positions of the parts may be adjusted by a key  $M$  (see dotted lines, Fig. 8) engaging with the rack  $n'$  and moving it to and fro past the detent. When the key is turned beneath the rack it also serves to keep the latch raised so as not to lock with the disk  $H$ . It will be seen that by turning the key  $M$  the extension  $L'$  may be withdrawn or projected beyond the end of the latch  $L$ , so as to

increase or diminish the distance between the end of the extension and the coin-rest, the advantages of which I will more fully point out hereinafter.

$N$  is a coin-guideway formed between the parts  $Q$  and  $o'$ , the inner end of which is thrown out of the vertical line between  $o^2$  and  $q$ , so that the coin shall have a sidewise inclination when it enters the coin-pocket  $O$ . The bottom  $o$  of this pocket  $O$  is inclined at a sharp angle to the vertical, and a coin passing out of the guideway falls upon this bottom, the upper edge of the coin being beneath the end of the latch extension  $L'$ , while its lower edge bears against the stop  $P$ , which, supported on arms  $p p'$ , closes the bottom of the pocket  $O$ . Succeeding coins will pile up on top of the first at a similar angle. A diaphragm  $Q$  separates the mechanism from the coin-receiving portion of the case. A main spring  $R$ , attached to the lid  $C$  and the bracket  $B$ , returns the lid to a closed position after being opened.

The operation of the lock is as follows: The lid  $C$  being held closed by the spring  $R$  the arm  $l$  of the latch  $L$  rests upon the raised edge of the disk  $H$  behind the recess  $k$ . The extension  $L'$  has been set so as to present beneath its end the room for the appropriate number of coins—for instance, two—to rest. When so set, a figure corresponding with the number of coins will be presented upon the back  $l^3$  of the extension  $L$  behind the small opening in the lock-case to the left of the coin-slot. (See Figs. 1 and 2.) If an attempt is now made to open the lid  $C$  without inserting any coins in the lock, as soon as the disk  $H$  begins to revolve the arm  $l$  of the latch  $L$  will fall into the recess  $k$  and stop the movement. On releasing the handle of the lid  $C$ , its weight and the force of the spring  $R$  will return the parts to their original positions. If any less than the proper number of coins or coins of less diameter or thickness are put in the lock, the result will be the same as just described; but if the proper number and denomination of coins are put in they will fall below the end of the extension  $L'$  and will support the extension and latch so that the disk  $H$  may be revolved past the arm  $l$  and the lid  $C$  raised. As the disk revolves it carries down the stop  $P$ , and, after the locking-point on the disk  $H$  has passed the latch  $L$ , uncovers the bottom of the pocket and allows the coins to fall into the coin-receiving part of the lock-case. When the lid is released, the spring returns the parts to their original positions.

The object in having the edge of the disk  $H$  slightly raised behind the recess  $k$  is to allow for a slight amount of waste motion between the coins and the extension  $L'$ .

The case is opened without the use of coins by turning the key under the rack  $n'$ , thereby holding up the latch.

Certain modifications may be made without departing from the spirit of my invention. Thus the brackets  $B B$  may be omitted and

the lid C journaled directly to the lock-case; also, the end J of the lock-case may be omitted and the disk H secured directly to the end of the lid C, or formed as a part thereof, the latch L being pivoted to the coin-guideway.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A receptacle for a coin-controlled vending machine provided with a centrally pivoted lid adjusted to revolve within the back frame when the lid is opened, in combination with a spring at one end of said lid to close the same, and a lock at the other end to lock the same.

2. A receptacle for a coin-controlled vending machine, comprising a recessed back portion, a revolving front portion or lid pivoted thereto, a stop upon said lid to restrict its rotation by engaging with the edges of the back portion, in combination with a spring at one end of said lid to close the same, and a lock at the other end to lock the same, substantially as described.

3. The combination with the lid of a vending machine of the class specified, provided with an announcement opening therein, of a horizontal guide sheath passing behind said opening, an announcement sign sliding therein and a spring to close and a lock to lock said lid, substantially as described.

4. A receptacle for a coin-controlled vending machine provided with a centrally pivoted lid, adjusted to revolve within the back frame when the lid is opened, an announcement opening in said lid, band pins attached to the inside of the lid, a horizontal announcement band passing around said pins and movable behind said opening, a spring to close said lid and a lock to lock the same, substantially as described.

5. The combination with the lid of a vending machine provided with an announcement opening therein of a horizontal guide sheath passing behind said opening, a slide sliding in said sheath, retained from behind said opening by the merchandise in the case, and sliding behind the opening when the merchandise is removed, band pins attached to the inside of the lid and an announcement band passing around said pins within said guide sheath and movable behind said opening.

6. The combination with the lid of a vending machine, provided with an announcement opening therein, of a slotted guide sheath passing behind said opening, a slide sliding in said sheath and provided with a pin projecting through said slot to engage with the merchandise within the case and an elastic spring to draw said slide behind said opening.

7. The combination with the lid of a vending machine provided with an announcement opening and band pins attached to the inside of said lid, of an announcement band passing around said pins and movable behind said opening, and a band shifter consisting of a

collar surrounding one thickness of said band and a clamping screw to secure the collar to the band.

8. The combination with the revolving lid of a coin-controlled vending machine, of a disk revolving therewith, and provided with a catch recess, and a latch normally sustained on said disk and which will clear said catch recess, without additional elevation, when supported by an appropriate coin or coins, but which will engage in said catch recess when the lid is moved in the absence of an appropriate coin or coins.

9. In a coin-controlled lock the combination of a revolving disk provided with a latch recess therein and an elevation behind said recess, of a latch normally resting upon said elevation, and falling into said recess when the disk is moved in the absence of an appropriate coin or coins to support the latch.

10. The combination in a coin-controlled lock of a latch normally out of locking engagement, a coin-way to guide, and a coin pocket to receive a coin beneath said latch so that the upper edge of the coin will support the latch out of locking engagement without raising it from its normal position.

11. The combination in a coin-controlled lock of a latch normally out of locking engagement, a coin-way to guide, and a coin pocket, provided with a movable bottom, to receive a coin beneath said latch so that the upper edge of the coin will support the latch out of locking engagement without raising it from its normal position.

12. The combination in a coin-controlled lock of a latch normally out of locking engagement and provided with an adjustable extension to support said latch out of locking engagement by resting upon the upper edge of a coin.

13. The combination in a coin-controlled lock of a pivoted latch, normally out of locking engagement, provided with an adjustable extension adapted to slide upon said latch, a series of recesses in said extension, and a detent attached to said latch and engaging with said recesses whereby the latch and extension are held in their proper relative positions.

14. The combination in a coin-controlled lock of a pivoted latch, normally out of locking engagement, provided with an adjustable extension adapted to slide upon said latch, a toothed key rack upon said extension a series of recesses in said extension and a detent attached to said latch and engaging with said recesses whereby the latch and extension are held in their proper relative positions.

15. The combination in a coin-controlled lock of a pivoted latch normally out of locking engagement, an adjustable coin-engaging extension, a graduated scale upon such extension and an aperture in the case disclosing the proper figures on the scale at any adjustment of the latch and extension.

16. The combination in a coin-controlled

- lock of a coin pocket to receive and support a coin in an inclined position, a movable bottom to said coin pocket rotating with the movement of the lock below the floor of the coin pocket and allowing the coin to escape over the upper edge of said movable bottom.
17. The combination in a coin-controlled vending machine of a merchandise receptacle provided with a rotating lid, a coin-controlled lock to lock said lid, a sliding pin projecting from the side of the lock to connect it with the lid, and a spring to keep the pin normally projected, but permitting its withdrawal against the action of the spring.
18. The combination in a coin-controlled lock of a rotary locking disk, a latch normally out of locking engagement with said disk, a coin pocket to hold a coin in position to uphold said latch with its upper edge, an opening in the lower part of said coin pocket, a movable door for said opening attached to said disk and rotating therewith to descend below such opening when the locking point of the disk has passed the latch.
19. The combination in a coin controlled

lock, adapted to operate upon a plurality or group of coins, of a latch provided with an adjustable coin-engaging extension, by extending or retracting which the lock may be set to operate upon a different group, denomination or size of coins.

20. The combination in a coin-controlled lock, adapted to operate upon a plurality of coins, of a latch, provided with an extension to engage with the upper angle of the edge of an inclined coin, and means for extending or retracting such extension to operate upon a different group, denomination or size of coins.

21. The combination in a coin-controlled lock of a locking latch, a coin-way to guide and a support to receive a coin in an inclined position so that the upper angle of the edge of the coin will operate to prevent the locking of the latch.

ANDREW WILSON.

Witnesses:

WM. D. NEILLEY,  
DANIEL MURRAY.