J. H. PROCTER.

COIN RECEPTACLE.

APPLICATION FILED MAY 16, 1916.

1,258,046. Patented Mar. 5, 1918.

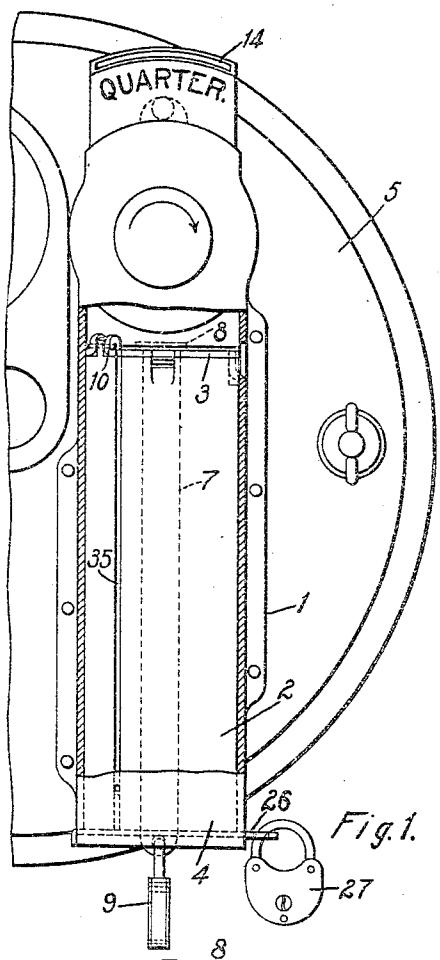


Fig. 1.

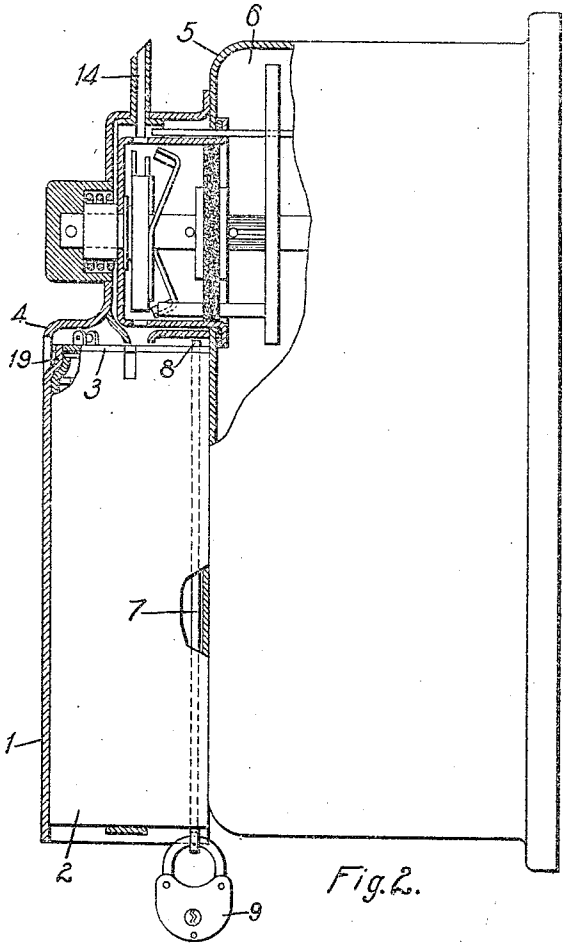


Fig. 2.

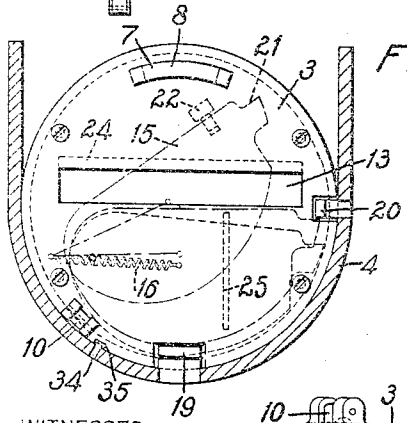


Fig. 3.

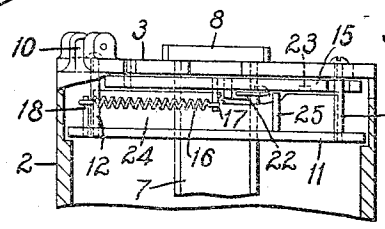


Fig. 4.

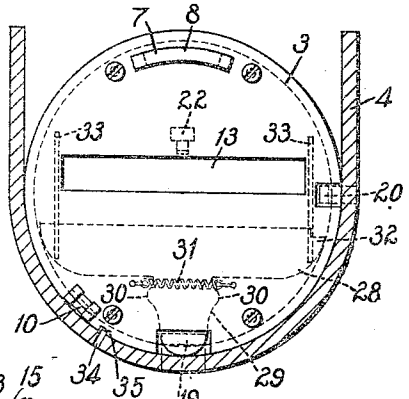


Fig. 5.

WITNESSES:

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COIN-RECEPTACLE.

1,258,046. Specification of Letters Patent. **Patented Mar. 5, 1918.**

Application filed May 16, 1916. Serial No. 97,815.

To all whom it may concern:

Be it known that I, JOSEPH H. PROCTER, a citizen of the United States, and a resident of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Coin-Receptacles, of which the following is a specification.

My invention relates to coin receptacles and particularly to means for automatically closing such receptacles when they are withdrawn from their holders.

One object of my invention is to provide a coin receptacle of the above indicated character that shall have means for quickly closing its coin opening when the receptacle is withdrawn from its holder.

Another object of my invention is to provide a closing device for a receptacle of the above indicated character that shall be adapted to be easily reset, be cheap to construct and efficient in its operation.

It has been proposed to supply automatically-closing coin receptacles for prepayment meters in order that collectors may facilitate their work of collecting the coins and thereby decrease the expense of billing and checking accounts. In view of the above, I provide a coin receptacle having a slit in its cover. The receptacle is adapted to be inserted in a holder that may form a part of the casing of a prepayment meter or other device to which it is connected. A shutter is provided for the slit and is adapted to be biased by a spring toward both its open and its closed positions. The shutter is normally biased toward its open position and is adapted to coöperate with a projection on the holder for moving it across its dead center position toward its closed position when the receptacle is inserted in the holder. A second projection on the holder is adapted to restrain the shutter from closing until the receptacle is withdrawn from the holder. When the receptacle is withdrawn from the holder, the spring is adapted to snap the shutter quickly into its closed position, and a latch is provided for holding it in such position until the lid of the receptacle is opened by the proper party.

In the accompanying drawings Figure 1 is a fragmentary front view, with parts broken away, of a prepayment meter embodying my invention; Fig. 2 is a side view, partially in section and partially in elevation, of the meter shown in Fig. 1; Fig. 3 is a top view, partially in plan and partially in section, of an automatic closing device for a coin receptacle embodying my invention; Fig. 4 is a fragmentary view, partially in elevation and partially in section, of the coin receptacle embodying my invention, and Fig. 5 is a top view, partially in plan and partially in section, of a modified form of automatically-closing coin receptacle embodying my invention.

The coin receptacle 1 comprises a cylindrical member 2 that is closed at one end and has a lid 3 at its other end. The receptacle 1 is adapted to be disposed in a holder 4 that is mounted on the cover 5 of a prepayment watthour meter 6 which may be constructed in accordance with the meter shown in co-pending application, Serial No. 84,860, filed March 17, 1916 by William M. Bradshaw and Walter G. Mylius and assigned to the Westinghouse Electric and Manufacturing Company. However, my device is not limited to this particular application as it may be used with any other form of coin-controlled device.

The lower end of the receptacle 1 is provided with a small opening and the cover 3 is also provided with a small opening near its periphery to receive a rod 7 having an enlarged head 8 thereon. The rod 7 is adapted to extend through the openings in the lower end of the receptacle and in the cover 3, and is provided with an opening at one of its ends to receive a lock 9. The cover 3 is provided with a hinge 10 to permit it to be opened when the lock 9 and the rod 7 are removed.

A plate 11 is attached to, and spaced apart from, the cover 3 by spacing members 12. An opening 13 is provided in the cover member 3, and a similar opening is provided in the plate 11 to permit coins to pass from the coin slot 14 of the meter 5 into the receptacle 1. A shutter member 15 is pivotally mounted to the under side of the cover 3, and a spring 16 is attached, at one of its ends, to a pin 17 on the under side of the shutter 15, at its other end, to a pin 18 that is mounted on the plate 11. The spring 16 is so disposed that the shutter 15 may be biased toward its open and toward its closed position with respect to the opening 13. Two projections 19 and 20 are provided on the inner surface of the holder 4 and may be

formed from material punched from the holder 4 itself. However, these projections may be welded, or otherwise secured, to the inner surface of the holder 4. The projection 19 is adapted to extend through an opening in the receptacle 1 to engage the shutter 15 in such manner that, when the receptacle 1 is inserted in the holder 4, the shutter will be biased over its dead-center position until a projection 21 on the shutter engages the projection 20 on the holder 4 which is also adapted to extend through an opening in the receptacle 1. Thus, the opening 13 will remain open until the receptacle 1 is withdrawn from the holder 4. That is, when the receptacle 1 is so withdrawn that the projection 20 does not engage the projection 21, the spring 16 will quickly snap the shutter 15 across the opening 13 to close the same. Portions of the casing 2 of the receptacle 1 are so bent inwardly where the projections 19 and 20 extend within the receptacle as to preclude communication to the interior of the device.

A latch member 22 is provided on the under side of the cover 3 and is adapted to engage a notch 23, formed in the under side of the shutter 15. Thus, when the shutter 15 is snapped into its closed position, it is securely held there by the latch 22 until it is released by the proper party. It will be seen from Fig. 3 of the drawing that the shutter 15 does not completely cover the opening 13, hence, to prevent the releasing of the latch 22 for the purpose of extracting the coins from the receptacle 1, the plate 11 is provided with a projection 24 that renders the latch 22 completely inaccessible from the opening 13. The plate 11 is also provided with a projection 25 that is adapted to guide the movement of the shutter 15. While the opening 13 is here shown of a relatively large size, it will be understood that it may be of such size that it can be completely closed by the shutter 15.

The receptacle 1 is adapted to be supplied to the coin collectors when the shutter 15 is yieldingly held in its open position and the cover 3 securely locked in position. After the receptacle 1 is inserted in the holder 4, a retaining member 26 is inserted in openings in the holder 4 and provided with a lock 27 for preventing its withdrawal. As hereinbefore set forth, when the receptacle 1 is inserted in position, the projection 19 so moves the shutter 15 that it is biased over its dead-center position against the projection 20 in which position it is held until the receptacle 1 is withdrawn from a predetermined position in the holder 4 by the proper party.

In Fig. 5 of the drawing, I provide a shutter 28 that is provided with a projection 29 having an enlarged rounded central portion 30. A garter or annular helical spring 31 is disposed around the projection 29 and attached at diametral points to the cover 3 of the receptacle 1. The shutter 28 is provided with a projection 32 that is adapted to engage the projection 20 on the holder 4 when the projection 19 on the holder 4 moves the shutter 28 by reason of its engagement with the projection 29. That is, the projection 19 engages the projection 29 when the receptacle 1 is inserted in the holder 4 to cause the enlarged portion 30 to move to such position with respect to the spring 31 that the spring tends to close the opening 13. In other words, the projection 29 is moved to such position that the spring 31 engages the opposite side of the portion 30 from that shown in the drawing. In this position, the spring 31 so cooperates with the rounded edges of the portion 30 as to bias the same over its neutral or dead-center position toward its closed position until the projection 32 engages the projection 20. A latch 22 is also provided for securing the shutter 28 in its closed position when the receptacle 1 is withdrawn from the holder 4. Guiding members 33 are provided for guiding the movement of the shutter 28. In other respects, the automatic closing device shown in Fig. 5 is similar to that shown in Figs. 1, 2, 3 and 4 of the drawing.

A guiding strip 34 is provided in the holder 4 and is adapted to engage a slot 35 in the outer wall of the receptacle 1 for the purpose of causing the receptacle to be inserted in its correct position with respect to the projections 19 and 20.

It will be understood that my invention is not limited to the particular devices illustrated, as it may be variously modified without departing from the spirit and scope of the appended claims.

I claim as my invention:

1. The combination with a coin receptacle and a holder therefor having a projection thereon, of a shutter for the receptacle, and means for biasing the shutter toward its open and closed positions, the projection on the holder being adapted to move the shutter over its dead-center position when the receptacle is inserted in the holder.

2. The combination with a coin receptacle and a holder therefor having projections thereon, of a shutter for the receptacle, and a double-acting means for biasing the shutter toward its open and closed positions, the projections on the holder being adapted to move the shutter over its dead-center position and to hold it open in this position until the receptacle is removed from the holder.

3. The combination with a coin receptacle having a coin slit therein, and a holder therefor, of a shutter for the slit, a double-acting spring for normally biasing the shut-

ter toward its open position, a projection on the holder for so moving the shutter that the spring tends to close it when the receptacle is inserted in the holder, and means for holding the shutter open so long as the receptacle is in the holder.

4. The combination with a receptacle having a slit in one of its ends and a holder for the receptacle, of a shutter for the slit, means for normally biasing the shutter toward its open position, means for moving the shutter toward its closed position when the receptacle is inserted in the holder, and means for restraining the closing of the slit until the receptacle is removed from the holder.

5. The combination with a receptacle having a slit in one of its ends and a holder for the receptacle, of a shutter for the slit, means for normally biasing the shutter toward its open position, means for moving the shutter toward its closed position when the receptacle is inserted in the holder, means for restraining the closing of the slit until the receptacle is removed from the holder, and means for latching the shutter in its closed position.

6. The combination with a receptacle having an opening in one of its ends and a holder for the receptacle, of a movable shutter for the opening, a spring for normally holding the shutter in its open position, means for moving the said shutter to such position when the receptacle is inserted in the holder that the spring tends to close it, and means for restraining the closing of the shutter so long as the receptacle is disposed in the holder.

7. The combination with a receptacle having a slit in its upper end, and a holder for the receptacle, of a movable shutter for the slit, a spring for biasing the shutter toward two positions, means for so moving the shutter when the receptacle is inserted in its correct position in the holder that the spring tends to close it, and means for restraining the closing of the shutter until the receptacle is removed from its correct position in the holder.

8. The combination with a receptacle having a slit in its upper end, and a holder for the receptacle, of a movable shutter for the slit, a spring for biasing the shutter toward two positions, means for so moving the shutter when the receptacle is inserted in a predetermined position in the holder that the spring tends to close it, means for permitting the closing of the shutter when the receptacle is removed from its predetermined position in the holder, and means for latching the shutter in its closed position.

9. The combination with a coin receptacle having a slit in one of its ends, and a holder for the receptacle, of a pivotally mounted shutter for the slit, a spring adapted to bias the shutter toward either one of two positions, a projection on the holder adapted to move the shutter into such position when the receptacle is inserted in the holder that it is biased toward its closed position, and a second projection on the holder for holding the shutter open until the receptacle is withdrawn from the holder.

10. The combination with a coin receptacle having an opening in one of its ends, and a holder for the receptacle, of a pivotally mounted shutter for the opening, a spring for biasing the shutter toward either one of two positions, a projection on the holder adapted to move the shutter into such position, when the receptacle is inserted in the holder, that it is biased toward its closed position, a second projection on the holder for restraining the closing of the shutter until the receptacle is removed from the holder, and a latch for securing the shutter in its closed position.

11. The combination with a coin receptacle and a holder therefor, of a hinged cover for the receptacle having a coin opening therein, a shutter for the opening, means for normally holding the shutter open, means for moving it toward its closed position, means for restraining the closing of the shutter, and means for latching the shutter in its closed position, said means for normally holding the shutter open being adapted to snap it into its closed position when the said restraining means is removed.

12. The combination with a receptacle having a slit in one of its ends, a holder for the receptacle, of a shutter for the slit, resilient means for biasing the shutter toward its open and toward its closed position, said shutter being adapted to be normally in its open position, means for moving the shutter toward its closed position under predetermined conditions, and means for restraining the closing of the shutter, said resilient means being adapted to snap the shutter into its closed position when the receptacle is removed from the holder.

In testimony whereof, I have hereunto subscribed my name this 28th day of April, 1916.

JOSEPH H. PROCTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."