

No. 891,771.

PATENTED JUNE 23, 1908.

J. GRIBBEL.
PREPAYMENT MECHANISM.
APPLICATION FILED FEB. 28, 1907.

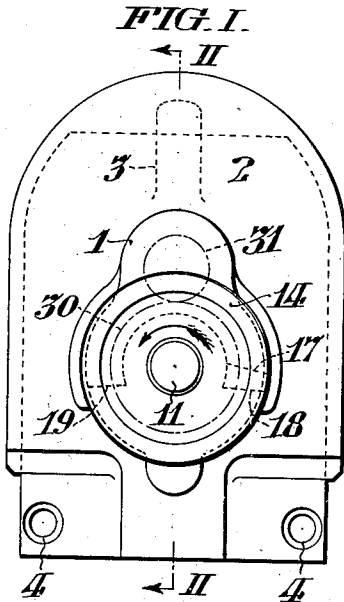


FIG. III.

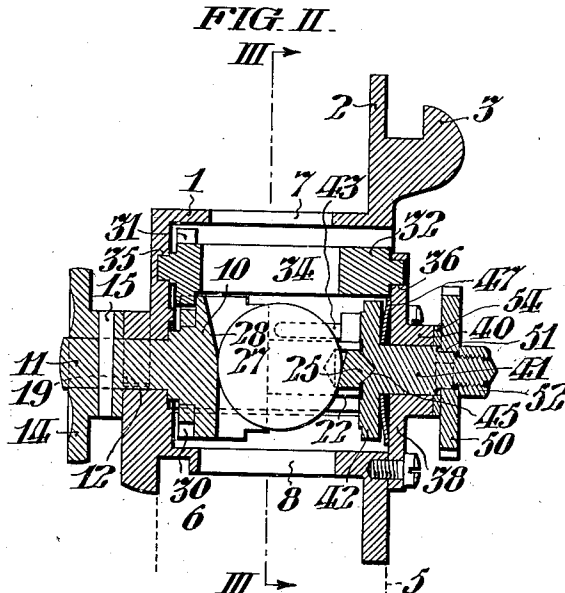


FIG. IV.

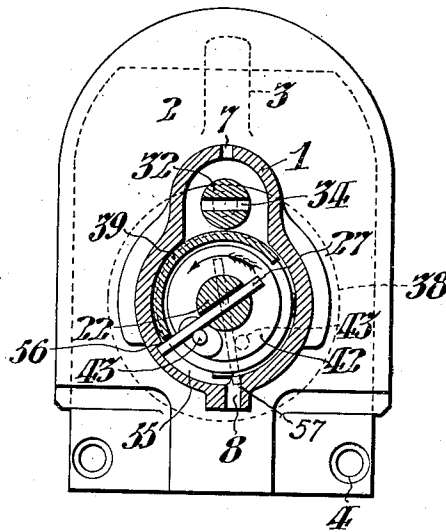
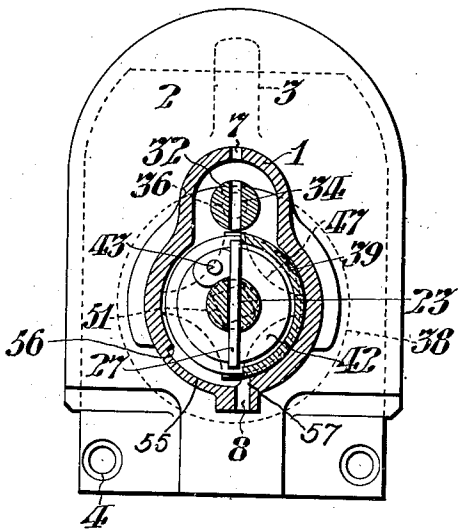
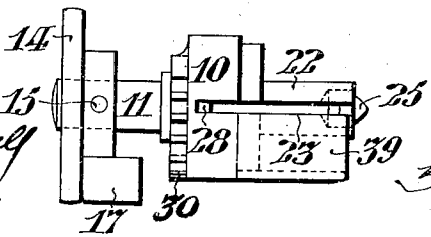


FIG. V.

WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN GRIBBEL, OF WYNCOTE, PENNSYLVANIA.

PREPAYMENT MECHANISM.

No. 891,771.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed February 28, 1907. Serial No. 359,745.

To all whom it may concern:

Be it known that I, JOHN GRIBBEL, of Wyncote, in the State of Pennsylvania, have invented a certain new and useful Improvement in Prepayment Mechanism, whereof the following is a specification, reference being had to the accompanying drawings.

My improvement is particularly applicable to coin controlled gasometers of the class described in Letters Patent of the United States #688,466, granted to me December 10, 1901; wherein a rotary coin carrier provided with a slot adapted to register with a coin inlet slot in a casing inclosing it, may be operatively connected, by a coin, with meter mechanism, so that the latter may be manually set in position to deliver a predetermined quantity of gas by turning an exterior handle attached to said carrier. It was found in practice that the users of such gasometers attempted to fraudulently manipulate the same in two ways, viz., first, by returning the rotary coin carrier to initial position to present a normal coin for removal through the coin inlet slot, after it has been used to set the meter mechanism, and, second, to employ a minor coin, to set the meter mechanism; such a coin being caught before it falls through the slot in the carrier, by a quick rotary movement of the latter.

It is the object of my invention to provide simple and efficient means to not only prevent reverse movement of a normal coin which has been employed to set the meter mechanism, but to also prevent a minor coin from being used to operate the mechanism.

In the form of my invention hereinafter described, a rotary coin carrier is provided with a casing comprising an interior recess forming a ledge in stationary relation with said casing, extending parallel with the axis of rotation of the carrier, whereby a normal coin rotated by the carrier is engaged to prevent its reverse movement, and a minor coin dropped into said carrier is engaged to prevent its forward movement in cooperation with the meter mechanism.

My invention comprises the various novel features of construction and arrangement hereinafter more definitely specified.

In the drawings; Figure I, is a front elevation of a mechanism embodying my improvement. Fig. II, is a vertical sectional view of said mechanism taken on the line II, II, in Fig. I. Fig. III, is a vertical sectional view of said mechanism taken on the

line III, III, in Fig. II, showing the same in the initial position to receive a coin. Fig. IV, is a sectional view similar to Fig. III, but showing the coin carrier turned to set the meter mechanism, a normal coin being engaged by a stationary ledge in the casing to prevent its reverse movement. Fig. V, is a plan view of the coin carrier and parts connected therewith.

In said figures, 1 is the casing comprising the plate 2 provided with the hooked lug 3, and bolt holes 4 whereby it may be secured to the meter 5 over a receptacle 6, for coins introduced through said casing. Said casing 1 comprises the coin inlet slot 7, in its upper wall, and the coin discharge slot 8 in its lower wall, the latter being in registry with the coin receptacle 6, aforesaid. Said casing 1 incloses the rotary coin carrier 10, having the shaft 11, at its outer end in unitary relation therewith, extending through the bearing 12, in said casing, and provided exterior thereto with the operating handle 14, rigidly secured thereon by the pin 15. As shown in full lines in Fig. V, and in dotted lines in Fig. I, said handle 14 is provided with the lug 17, arranged to limit the rotary movement of said carrier by encountering the ledges 18 and 19 on said casing. Said carrier 10, is provided at its inner end with the shaft 22, in unitary relation therewith, comprising the coin slot 23 and the trunnion 25, in axial alinement with said shaft and said slot. As shown in Fig. II, said trunnion 25, comprises a conical projection extending beyond said shaft 22, and, an inclined face extending within the slot 23, for engagement with a normal coin 27, when said carrier is presented in the position shown in Figs. I, II, III, and V, with the inclined end wall 28 at the upper portion thereof. Said carrier 10, is provided with the driving gear 30, which is rigidly connected therewith, and in mesh with the driven gear 31, on the rotary cut off bar 32. Said bar is provided with the slot 34, which in the initial position of the mechanism is presented in alinement with the slot 7 in the casing 1, and with the slot 23, in the carrier 10, as shown in Figs. II, and III. Said cut off bar 32, is mounted to rotate in the bearing 35, in the casing 1, and in the bearing 36 in the plate 38, and the relation of the gear wheels 30, and 31, is such that the slot 34 in said bar is not presented in alinement with the slot 7, in the casing except when the slot 23 is also presented

in alinement therewith; the effect of such arrangement being to cut off communication through said slot 7, to the carrier 10, when the latter is turned from its initial position. As shown in Figs. IV, and V, said carrier 10 is also provided with the semi-cylindrical shield 39, which closes the upper portion of the casing 1, beneath the cut off bar 32, when the coin carrier is turned to set the meter mechanism as shown in Fig. IV, and thus prevents access through the slot 7, to the coin. Said plate 38 comprises the bearing 40, for the shaft 41, having the disk 42, provided with the projecting pin 43, whereby said shaft may be rotated when a normal coin 27 is deposited in the slot 23 in the position shown in Fig. II, so that it encounters said pin 43, when the carrier is turned in the direction of the arrows marked on Figs. I and IV. Said disk 42, has the central conical bearing 45 for the trunnion 25, and is prevented from accidental rotary movement by the flat spring 47 which encircles said shaft 41, and bears against the plate 38, as shown in Fig. II. Said shaft 41, carries the gear wheel 50, which is retained on the squared portion 51, thereof, by the nut 52, on the end of said shaft. The loose washer 54 is interposed between said wheel 50 and the contiguous face of the plate 38. It is to be understood that said wheel 50, is operatively connected with the meter mechanism, to set the latter in position to deliver a predetermined quantity of gas, in accordance with the rotary movement of said shaft 41, in the direction of the arrows marked on Figs. I and IV; such rotary movement being manually effected in successive half revolutions, by means of normal coins 27 which are received through the slot 7, into the slot 23, of the carrier 10, and turned by the latter against the pin 43, until the coin registers with the discharge slot 7, and falls there-through into the coin receptacle 6.

Referring to Fig. IV; it may be observed that when a normal coin 27 is turned to set the meter mechanism by rotation of the shaft 41, said coin slips through the slot 23, into the recess 55, in the casing 1, so that the abutment 56, which extends parallel with the axis of rotation of the carrier 10, at the upper edge of said recess is directly encountered by said coin upon any attempt to reversely turn the carrier, and consequently said stationary abutment 56, prevents reverse movement of the coin carrier and theft of a normal coin as above described. Moreover, if a minor coin is dropped into the slot 23, of the carrier 10, it falls through the latter to the bottom of the recess 55, and, the stationary abutment 57 at the lower edge of said recess is encountered by said minor coin so that it cannot be turned in the direction of the arrow to encounter the pin 43, and set the meter mechanism. It may be observed

that said abutment 57 is in alinement with the top of the slot 8, so that a minor coin is arrested in position to fall into the coin receptacle.

It is to be understood that I do not desire to limit myself to the precise details of construction and arrangement above described, as it is obvious that various modifications may be made therein without departing from the essential features of my invention, as defined in the following claims.

I claim:—

1. A prepayment mechanism for a vending machine, comprising a casing having a coin inlet slot and a coin discharge outlet slot; a rotary coin carrier in said casing between said inlet and outlet, having a coin slot extending entirely through said carrier adapted to register with said coin inlet and be out of alinement with said outlet when thus registered; a handle outside of said casing operatively connected with said carrier; means limiting the axial extent of the slot in said carrier, arranged to prevent a normal coin from falling through said carrier and to permit a minor coin to fall through said carrier into contact with said casing; means in said casing arranged to engage a minor coin in said carrier and prevent forward rotary movement of said carrier in cooperation with the vending mechanism until said coin is discharged from said carrier; and, means in said casing arranged to engage a normal coin in said carrier and prevent reverse rotary movement of said carrier, after a definite range of movement, until said coin is discharged from said carrier, substantially as set forth.

2. A prepayment mechanism for a vending machine, comprising a casing having a coin inlet slot and a coin discharge outlet slot; a rotary coin carrier in said casing between said inlet and outlet, having a coin slot extending entirely through said carrier adapted to register with said coin inlet; a handle outside of said casing, operatively connected with said carrier; means limiting the axial extent of the slot in said carrier arranged to prevent a normal coin from falling through said carrier and to permit a minor coin to fall through said carrier into contact with said casing; means in said casing arranged to engage a minor coin in said carrier and prevent forward rotary movement of said carrier in cooperation with the vending mechanism until said coin is discharged from said carrier; and, means in said casing arranged to engage a normal coin in said carrier and prevent reverse rotary movement of said carrier, after a definite range of movement, until said coin is discharged from said carrier, substantially as set forth.

3. A prepayment mechanism for a vending machine, comprising a casing having a coin inlet slot and a coin discharge outlet slot; a rotary coin carrier in said casing be-

tween said inlet and outlet, having a coin slot extending entirely through said carrier adapted to register with said coin inlet and be out of alinement with said outlet when thus registered; a handle outside of said casing, operatively connected with said carrier; means limiting the axial extent of the slot in said carrier, arranged to prevent a normal coin from falling through said carrier and to permit a minor coin to fall through said carrier into contact with said casing; and, means in said casing arranged to engage a minor coin in said carrier and prevent forward rotary movement of said carrier in coöperation with the vending mechanism until said coin is discharged from said carrier, substantially as set forth.

4. A prepayment mechanism for a vending machine, comprising a rotary coin carrier having a coin slot extending entirely through it parallel with its axis; a casing inclosing said carrier, having a coin inlet slot adapted to register with said coin slot in the carrier, and a coin discharge outlet slot arranged to register with the coin slot in said carrier, but said outlet slot being so arranged that the carrier slot cannot simultaneously register with both the inlet and outlet slots; means limiting the axial extent of the slot in said carrier;

arranged to prevent a normal coin from falling through said carrier and to permit a minor coin to fall through said carrier into contact with said casing; and, means in said casing arranged to engage a minor coin in said carrier and prevent forward rotary movement of said carrier in coöperation with the vending mechanism until said coin is discharged from said carrier, substantially as set forth.

5. A prepayment mechanism for a vending machine, comprising a rotary coin carrier having a coin slot extending entirely through it parallel with its axis; a casing inclosing said carrier, having a coin inlet slot adapted to register with said coin slot in the carrier, and a coin discharge outlet slot arranged to register with the coin slot in said carrier, but said slots being so arranged that the carrier slot cannot simultaneously register with both the inlet and outlet slots, substantially as set forth.

In testimony whereof, I have hereunto signed my name at Wyncote, Pennsylvania, this twentieth day of February 1907.

JOHN GRIBBEL.

Witnesses:

S. E. SIMMONDS,
A. NORDEMAN.