March 6, 1945. W. VON STOESER 2,371,114

CLOSURE FOR COIN-RECEIVING RECEPTACLES

Filed Oct. 5, 1942

Fig. 5.

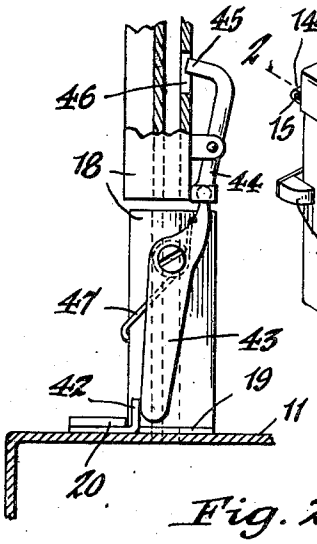


Fig. 1.

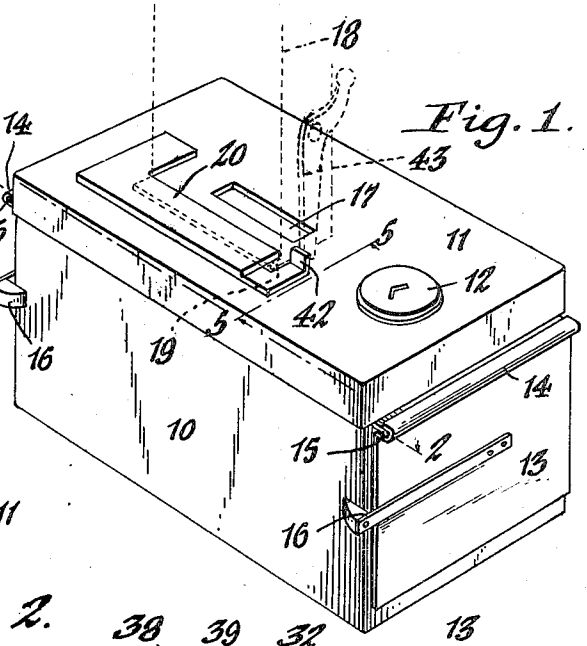


Fig. 2.

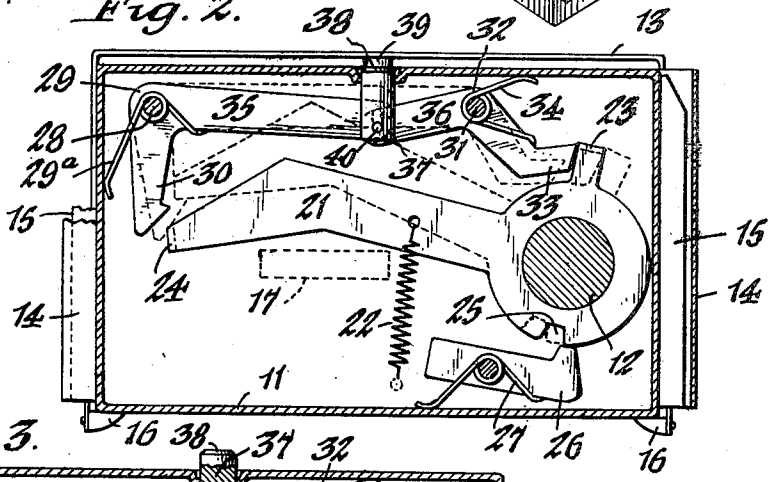


Fig. 3.

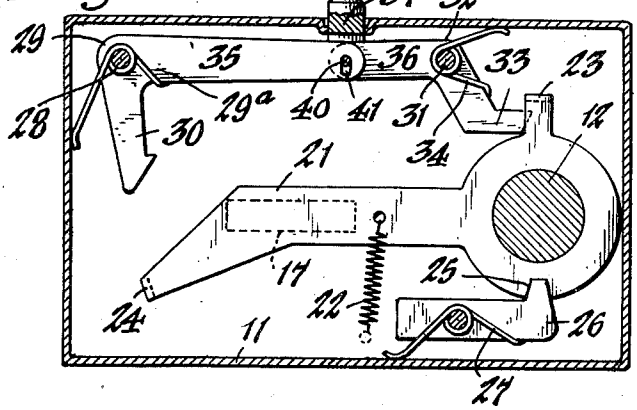
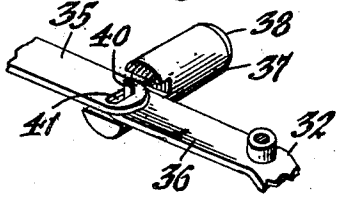


Fig. 4.



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2,371,114

CLOSURE FOR COIN-RECEIVING RECEPTACLES

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7 Claims. (Cl. 232—15)

This invention relates generally to receptacles or containers for the deposit of coins, tokens and the like, and more particularly to a tamper proof, apertured closure for such receptacles adapted to be locked thereto when in use.

One of the objects of the invention is to provide a closure of this character which is so designed and constructed as to automatically seal or cover the receiving aperture thereof when the same together with its attached and locked receptacle, is removed from a vending machine, or other device on which it is detachably mounted for use, for the purpose of being bodily transported in a sealed and undisturbed condition to a given place for the removal and checking of its contents.

Another object is to provide a closure which is adapted to be locked to the receptacle when in use and which is provided with an automatically-governed mechanism for controlling the coin-receiving aperture of the closure in such a manner that when the receptacle, together with its locked closure, is supported on a vending machine or the like, such mechanism is automatically set in a predetermined position short of an aperture-closing position, and when the receptacle together with its locked closure is removed from a use position for emptying and checking the received contents, such mechanism automatically operates to close or seal such aperture to prevent unauthorized removal or pilfering of the receptacle-contents until the closure has been unlocked from the receptacle by an authorized person whose duty it is to count and check the contents of such receptacle.

A further object of the invention is to provide an aperture controlling mechanism for devices of this character which is simple, compact and inexpensive in construction, which is reliable and positive in operation, and which can be readily reset for operative use after proper collection of the coins or like articles in the receptacle has been effected.

Other features of the invention reside in the construction and arrangement of parts hereinafter described and particularly pointed out in the appended claims.

In the accompanying drawing:

Figure 1 is a perspective view of the receptacle, closure therefor, and associated parts embodying my invention. Figure 2 is an enlarged horizontal section on the planes through the broken line 2—2, showing the aperture-controlling mechanism in its normal open position when the receptacle is installed on a vending machine or the like. Figure 3 is a similar view but showing the aperture-controlling mechanism in an aperture-closing position, and the supporting frame and flanges omitted. Figure 4 is a fragmentary perspective view of the depressible actuating member and associated parts of the aperture-controlling mechanism. Figure 5 is a cross section taken substantially in the vertical plane through line 5—5, Figure 1.

Similar characters of reference indicate corresponding parts throughout the several views.

In the automatic vending machine business collectors are employed to remove from time to time the deposits of coins received from such machines and it has been deemed desirable to keep the contents of the coin-receiving containers or receptacles intact until transported to a place where the contents would be removed and counted, assuring the owners of such machines the receipt of their full profits and removing as well any temptations on the part of the collector. In use, my invention accomplishes these purposes by providing coin receptacles having locked pilfer-proof closures, and which receptacles together with their closures are interchangeable, so that when a filled receptacle is removed from a vending machine, an empty one is mounted in its place, and after removal of the receptacle its contents are effectually sealed and held intact until opened by an authorized person.

In the embodiment of my invention shown in the drawing, 10 indicates the coin container or receptacle which may be in the form of a metallic box or which may be in the form of a bag or the like, and 11 indicates a removable cover or closure which when in use is adapted to be locked in place on the receptacle, a key-operated lock 12 being employed for this purpose. The receptacle and its closure are adapted to be mounted as a unit in operative relation to the vending machine, and by way of example, a supporting frame 13 is provided onto which the receptacle is adapted to be laterally slid into place, the frame being provided at its upper end with guide tracks 14 and the closure 11 being provided at its opposite sides with lateral flanges 15 which slidingly engage such tracks. Spring-pressed latches 16 are applied to the frame and serve to detachably retain the receptacle in place on the frame. The top wall of the closure 11 is provided with a coin-receiving slot or aperture 17, which, when the device is operatively connected with a vending machine or the like, is adapted to register with the discharge chute 18 of the coin device. To insure such proper registration the lower end of the discharge chute may be provided with a marginal flange 19 and the top side of the closure provided with a mating gauge or horizontally-grooved portion 20 for receiving such flange when the receptacle and its closure are mounted in place on the frame 13.

The closure 11 is preferably provided with a depending rim to provide a chamber or compartment within which the mechanism for controlling

the opening and closing of the aperture 17 is housed and supported. The numeral 21 indicates a horizontally swinging gate or closing member which is mounted on the underside of the top wall of the closure to assume a position at one side of the aperture to uncover it for receiving deposits or to a position underlying the same to close and seal the receptacle-contents against removal. A spring 22 connected to this gate serves to normally urge it to its aperture-closing position. By way of example, this gate is shown as fulcrumed on the casing or body of the lock 12. At its fulcruming end this gate has a depending lug 23 thereon, while the outer or free end thereof has a similar depending lug 24. In its inner or hub portion this gate also has a notch 25 with which a latching pawl 26 is adapted to engage in the aperture-closing position of the gate, a spring 27 being associated with this pawl to urge it into its latching position. Pivoted at 28 to the underside of the closure in correlation with the free end of the gate 21 is a bell crank shaped latching lever 29, the short arm 30 thereof constituting a pawl which is adapted to latch behind the gate-lug 24 in the fully opened position of the gate, a spring 29a being connected to its lever to constantly urge it to a latching position. Also pivoted to the underside of this closure at 31, in opposing relation to the lever 29, is a bell crank shaped positioning lever 32, the arm 33 of which is disposed in correlation with the gate-lug 23 for movement into and out of the path of movement thereof to prevent swinging of the gate to its fully closed position. A spring 34 is connected to this lever for normally urging its arm to a position clear of the path of travel of the gate-lug 23. The other arms 35 and 36 of the companion levers 29 and 32 are disposed in opposing relation and substantially centrally of the closure and adjacent the rear side thereof these arms are jointly connected to a depressible control button or member 37.

This control button is guided on and extends through the rear wall of the closure 11, terminating externally of the latter in an actuating head 38 which is adapted to abut against an alining stud or projection 39 applied to the receptacle-supporting frame 13, so that when the receptacle with its locked closure is installed for use on the frame the control button encounters the stud, resulting in the automatic depression of the former to set the levers 29 and 32 in their respective positions, shown by full lines in Figure 2, with the latching pawl 30 released and the lever-arm 33 in the path of the gate-lug 23 to prevent movement of the gate 21 to its aperture-closing position. When the receptacle is removed from the suporting frame, the button is automatically retracted, the lever-arm 33 is removed from blocking relation with the gate-lug 23, and the gate 21 is urged by its spring 22 to its aperture-closing position and held in that position by the latching pawl 26. In effecting these controlling movements in response to the button 37 being moved into and out of operative engagement with the stud 39 as a result of applying the receptacle to and removing it from its supporting frame, the levers 29 and 32 are moved in predetermined sequence, and for this purpose the arm 36 of the lever 32 has a pivot pin 40 extending through its free end which is connected to the bifurcated inner portion of the control button and extends through a transverse slot 41 in the opposing end of the companion lever-arm 35. By this construction, assuming the parts to be in the position shown by dotted lines in Figure 2, wherein the gate is latched by the pawl 30 in its fully open position preparatory to installing the receptacle in operative relation with a vending machine, when the button 37 is depressed by contact with the stud 39, the lever 32 is first actuated in a direction to project its arm 33 into the path of the gate-lug 23. During this initial movement of the control button the pivot 40 rides idly in the slot 41 of the lever-arm 35. When this pivot encounters the closed inner end of such slot, the further depression of the button causes the companion lever 29 to be rocked in a direction to release its pawl-like arm 30 from the adjoining gate-lug 24, releasing the gate 21 to be swung by its spring 22 to a position short of its aperture-closing position, being arrested and retained in such position by its lug 23 abutting the lever-arm 33, as shown by full lines in Figure 2. With the parts in this position, the receptacle is in its fully mounted operative position with the latches 16 engaged over its front side.

When the receptacle is removed from its supporting frame for transport to a place for opening it to check its contents, the control button is automatically shifted to its retracted position by the spring 34 and the lever 32 is rocked in a direction to remove its arm 33 clear of the gate-lug 23, whereupon the gate is urged by its spring 22 to its aperture-closed position, in which position it is latched by the pawl 26, as shown in Figure 3. After the closure is unlocked and the receptacle-contents counted, the former is replaced and locked on the receptacle, but before doing so the pawl 26 is released and the gate 21 swung manually into latched engagement with the lever-arm 30.

In order to insure that the receptacle 10 with its closure 11 is properly suspended in correlation with the coin discharge chute 18 of the vending machine so that the aperture 17 is accurately alined with such chute, I have provided the mating complementary suspension members 19 and 20. Also applied to the closure-bearing member 20 is an upright abutment 42 and pivoted on the coin chute for engagement at its lower end with such abutment is a vertically-swinging lever 43 whose upper end is coupled to a second lever 44 having a nose 45 thereon projectable through and across the passage 46 of the coin chute. A spring 47 connected to the lever 43 normally urges it in a direction to swing the nose of the companion lever 44 across the coin passage to obstruct it. By this construction, when the receptacle is properly suspended and alined with the coin chute, the lever 43 engages the abutment 42 and is accordingly rocked by it in a direction to swing the connected lever 44 to a position to retract its nose 45 from the coin passage, so as not to interfere with the coins traveling into the receptacle. On the other hand, should the receptacle not be properly positioned and alined with the coin chute, the lever 43 will not be rocked and the second lever 44 will therefore remain in its normal position with its nose across the coin passage to obstruct the travel of coins from the coin chute.

I claim as my invention:

1. A closure for coin-receiving receptacles and the like, comprising a body having a coin-receiving aperture therein, a gate mounted on said body for movement to and from an aperture-closing position, means operatively engageable

with said gate for releasably latching it in its aperture-opened position, a spring connected to said gate for normally urging it to its aperture-closing position, a second means operatively engageable with said gate for releasably latching it in its spring-urged closing position, and means mounted on said body and operatively connected to the first-named gate-latching means for governing the movements of the gate to an aperture-closing position.

2. A closure for coin-receiving receptacles and the like, comprising a body having a coin-receiving aperture therein, a gate mounted on said body for movement to and from an aperture-closing position, means operatively engageable with said gate for releasably latching it in its aperture-opened position, a spring connected to said gate for normally urging it to its aperture-closing position, a second means operatively engageable with said gate for releasably latching it in its spring-urged closing position, a third means operatively engageable with said gate for limiting its movement short of a closing position when released by the first-named latching means, and shiftable means projecting externally from said body and operatively connected to said first and third gate-controlling means for actuating them to their respective gate-releasing and gate-limiting positions when shifted in one direction and for actuating said gate-limiting means to a released position when shifted in the reverse direction to render said spring operative to urge the gate to its aperture-closing position in engagement with said second latching means.

3. A closure for coin-receiving receptacles and the like, comprising a body having a coin-receiving aperture therein, a gate mounted on said body for movement to and from an aperture-closing position, interconnected means in operative correlation with said gate for releasably latching it in its aperture-opened position and for governing its movement to a limiting position short of its aperture-closing position and to its aperture-closing position, a spring connected to said gate for urging it to an aperture-closing position, and means mounted on said body and operatively connected to said interconnected means for governing the unlatching and limit-positioning of the gate when moved in one direction and for causing the release of the gate to an aperture-closing position when moved in another direction.

4. In a device of the character described, a closure from which a coin receptacle or the like is adapted to be suspended and locked and which is adapted to be removably mounted on a support, said closure having an aperture therein for introducing coins or the like thereto, a gate mounted on the underside of said closure for movement to and from an aperture-closing position, means operatively engageable with said gate for releasably latching it in its aperture-opened position and for governing the positioning of the gate short of its aperture-closing position, a spring connected to the gate for normally urging it to its aperture-closing position, and shiftable means applied to said closure for abutting engagement at one end with said support and in operative-governing engagement at its other end with said gate-latching and positioning means, said shiftable means when moved in one direction by abutting contact with said support automatically causing the release of the gate to its position short of closing the closure-aperture, and when moved in the opposite direction upon removal of the closure from its support automatically causing the release of the gate to its spring-urged aperture-closing position.

5. In a device of the character described, a closure from which a coin receptacle or the like is adapted to be suspended and locked and which is adapted to be removably mounted on a support, said closure having an aperture therein for introducing coins or the like thereto, a gate mounted on the underside of said closure for movement to and from an aperture-closing position, a spring connected to said gate for normally urging it to an aperture-closing position, a latching lever movable to and from latching engagement with said gate for releasably retaining it in an aperture-opened position, a gate-positioning lever movable to and from a position for limiting the movement of the gate short of an aperture-closing position when said latching lever is released, and a depressible member projecting from the closure for abutting contact with its support and jointly connected to said latching lever and said gate-positioning lever for governing the movements of the same to their gate-releasing and gate-limiting positions, respectively, when such member is moved in one direction, and for governing the movement of the gate-positioning lever out of its limiting position when such member is moved in the opposite direction to permit the gate to be automatically moved to its aperture-closing position.

6. A closure for coin-receiving receptacles and the like, comprising a body having a coin-receiving aperture therein, a gate mounted on the underside of said body for movement to and from an aperture-closing position, a spring connected to said gate for normally urging it to an aperture-closing position, a latching lever for releasably latching the gate in an aperture-opened position, a positioning lever movable to and from a position for limiting the movement of the gate short of an aperture-closing position when said latching lever is released, and a depressible member mounted on said closure for actuation externally thereof and jointly connected to said latching lever and said positioning lever, the latter having a spring connected thereto for normally urging it and said depressible member to predetermined positions.

7. A closure for coin-receiving receptacles and the like, comprising a body having a coin-receiving aperture therein, a gate mounted on the underside of said body for movement to and from an aperture-closing position, a spring connected to said gate for normally urging it to an aperture-closing position, a latching lever for releasably latching the gate in an aperture-opened position, a positioning lever movable to and from a position for limiting the movement of the gate short of an aperture-closing position when said latching lever is released, said levers including arms disposed in opposing relation and one of the arms having a slot therein, a depressible member mounted on said closure having an actuating head at one end disposed externally of the closure and a coupling pin at its opposite end pivotally engaging the arm of one of said levers and the slot of the companion lever, and springs connected to each of said levers for urging the one to its latching position and the other from its position for limiting the movement of the gate short of an aperture-closing position, said springs through said levers jointly urging the depressible member to a normally-retracted position.

WALTER VON STOESER.