

April 12, 1938.

R. E. BAKER ET AL

2,114,246

COIN CONTROLLED BOTTLE DISPENSER

Filed July 18, 1936

2 Sheets-Sheet 1

Fig. 1.

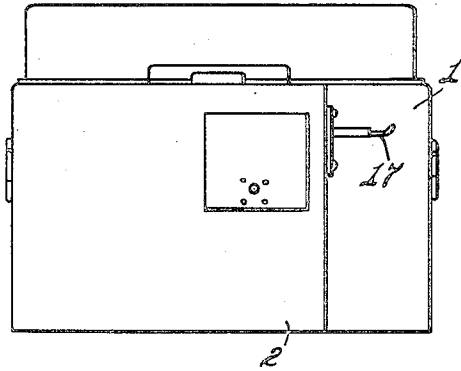


Fig. 2.

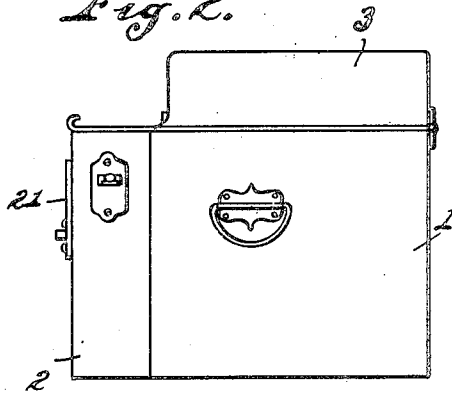


Fig. 3.

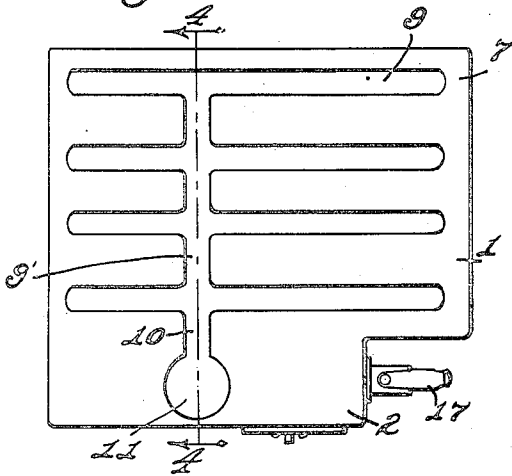


Fig. 4.

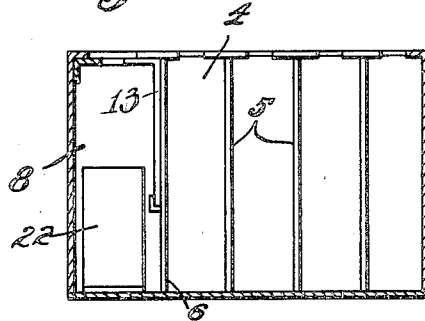


Fig. 6.

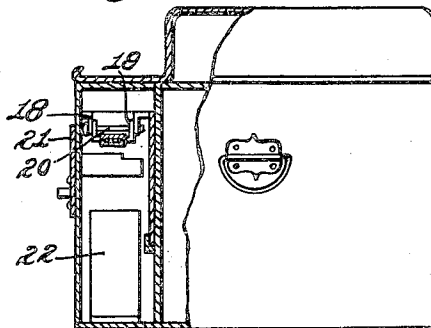
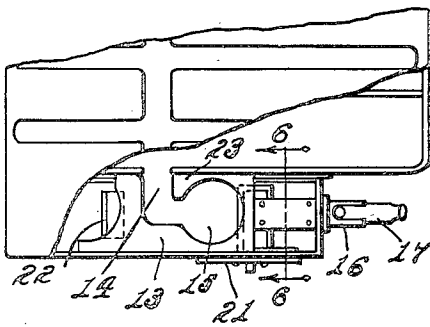


Fig. 5.



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2 Sheets-Sheet 2

Fig. 7.

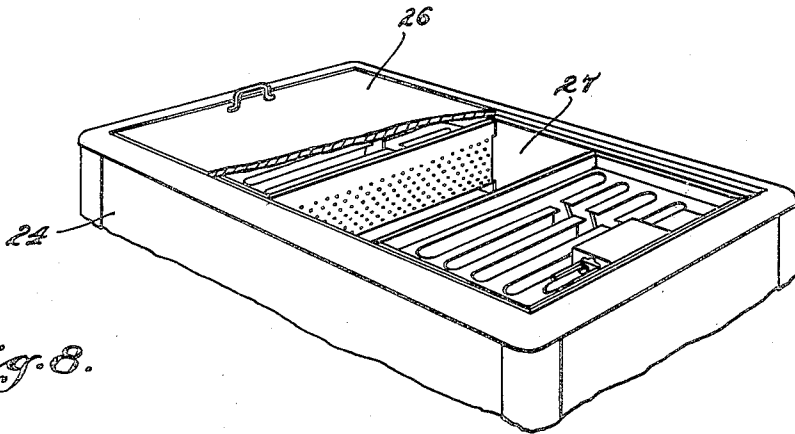


Fig. 8.

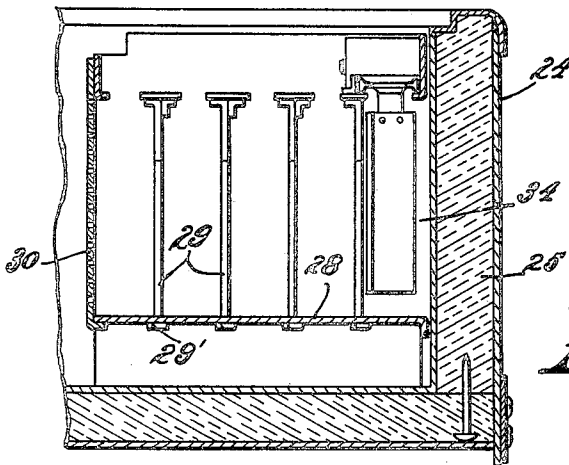


Fig. 9.

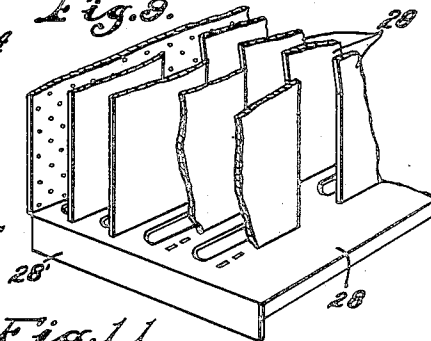


Fig. 11.

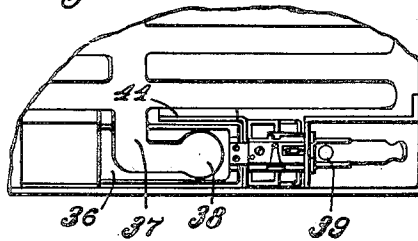
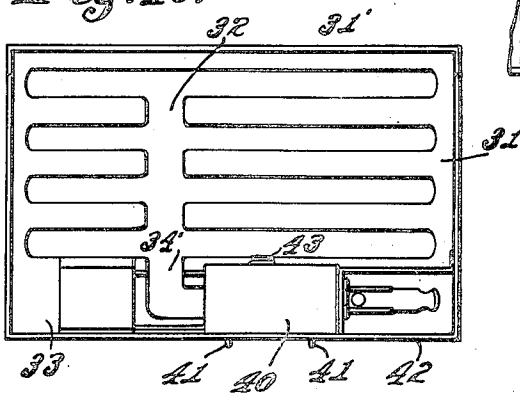


Fig. 10.



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UNITED STATES PATENT OFFICE

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COIN-CONTROLLED BOTTLE DISPENSER

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Application July 18, 1936, Serial No. 91,264

7 Claims. (Cl. 312-45)

The invention relates to improvements in dispensing containers for bottles and like objects. One of the objects of the invention is to provide a container in which the bottles of the same, or assorted liquids, may be stored for delivery to the purchaser and from which any selected bottle of those stored in the container may be delivered to the purchaser upon the deposit of a predetermined coin.

Another object of the invention is to provide a coin-control dispensing container wherein the bottles may be manually shifted around to obtain any pre-selected bottle and deposit it in a delivery position so that, upon the release of the controlling mechanism, the positioned bottle may be removed from the container.

While the device provides for the release of any pre-selected bottle to be removed from the container, no other bottle in the container may be removed without the deposit of a second coin.

The present application is a continuation for so much as is disclosed therein of our pending application filed November 15, 1935, Serial No. 49,895.

For the purpose of disclosing the invention, certain embodiments thereof are illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevation of a box embodying the invention;

Fig. 2 is an end elevation thereof;

Fig. 3 is a plan view with the cover removed;

Fig. 4 is a detail sectional view on the line 4-4 of Fig. 3;

Fig. 5 is a plan view with the parts broken away to show more clearly the control mechanism;

Fig. 6 is a detail section on the line 6-6 of Fig. 5;

Fig. 7 is a perspective view of the structure for use in connection with a refrigerated box;

Fig. 8 is a detail transverse section;

Fig. 9 is a detail perspective, partly in section, showing the mounting for the dividing channels;

Fig. 10 is a partial plan view; and

Fig. 11 is a detail plan view of the structure illustrated in Figs. 7 to 9 inclusive.

The structure illustrated in Figs. 1 to 6 inclusive is primarily designed as a container adapted for use for dispensing bottles in an unchilled or uniced condition, while the structure illustrated in Figs. 7 to 11 inclusive is more particularly adapted for use in refrigerating structures.

Referring first to the structure illustrated in Figs. 1 to 6 inclusive, a receptacle 1 is provided which preferably is rectangular in shape, hav-

ing, however, an offset portion 2. This receptacle is preferably formed of sheet metal and the receptacle portion proper is provided with a hinged cover 3 adapted, when closed, to cover or enclose the tops of the bottles contained in the receptacle. The receptacle portion of the box is provided with a plurality of channels 4 arranged in parallel rows and preferably formed by vertical uprights 5 extending upwardly from the bottom of the receptacle. The upright 6 divides the receptacle portion 2 from the main receptacle portion. These channel members 5 are broken at a point intermediate of their ends to provide a cross channel communicating with the channels 4. A cover plate 7 extends over the top of the upright members and over the top of the delivery channel 8 formed in the offset 2. This cover member has a plurality of slots 9 formed therein and arranged in parallel rows, one slot being over each of the channels 4. These slots are sufficiently narrow so that the neck of a bottle may project therethrough, but the body of the bottle cannot pass therethrough so that, due to the fact that the height of the channels is less than the total height of the bottle, the bottles contained in the channels will have their necks projecting through the slots 9. A transverse slot 9', intermediate of the ends of the slots 9, communicates with all of the slots 9 and communicates through a neck slot 10 with a delivery orifice 11. This orifice is sufficiently large to accommodate the full diameter of a bottle, and provides a delivery opening for the bottle. The orifice or delivery opening 11 is controlled by a slide 13 having formed therein an angle-shaped neck slot 14 communicating with an opening 15 of the same diameter as the opening 11. One leg of the neck slot 14, when the slide is in receiving position, is adapted to coincide with the neck slot 10 in the cover 7 so that a bottle may be moved from the neck slot 10 into the leg 14 of the slide. The opposite leg of the neck slot 14, communicating with the opening 15, will permit this opening to be moved into a position to coincide with the opening 11 and when the two openings coincide, the bottle which has been moved to delivery position may be removed from the container. The slide 13 is manipulated and controlled by a suitable coin-controlled mechanism 16 which is so arranged that the slide 13 cannot be moved by the manipulation of the handle 17 until a coin has been placed in proper position. The coin-control mechanism 16 is detachably connected to the slide 13. To this end, the slide member 13 is provided with a pair of downwardly extending

lips 18 which embrace a pair of upwardly extending lips 19 on the slide bar of the coin-control mechanism. A pin 20 extending through coinciding openings in the two lips locks the parts together. This pin, however, is removable so that the slide 13 may be detached from the coin-control mechanism and moved forward into a position where the opening 15 coincides with the opening 11. This, in the construction shown, is necessary to permit a refilling of the device, as, when the device becomes empty, the bottles can only be inserted in the device through the same opening from which they have been moved. Access to the disconnecting pin 20 may be through an opening closed normally by cover plate 21 provided with a suitable lock for retaining the same in position.

To prevent tilting of a bottle which has been moved into the neck slot 14, to a position so that it may be removed from the structure without manipulating the slide 13, a vertically extending guide-plate 22 extends upwardly from the bottom to a point sufficiently high to prevent the bottle from being raised above the same and this plate will prevent the movement laterally of the bottom of the bottle in a direction which might permit it to clear and be drawn through the opening 11.

In operation, the box, having been filled with bottles; it is quite obvious that by shifting the bottles back and forth in the slots 9, any selected bottle may be shifted eventually into the transverse slot 9' and then along the transverse slot through the neck 10 to the opening 11, the neck 14 in the slide 13 permitting the bottle to be passed not only through the channel 10 but also through the slide member 13. When the bottle has been placed in this position and a suitable coin placed in the coin-control mechanism, the handle 17 may be shoved to the left and will carry with it the slide, until the opening 15 therein coincides with the opening 11, at which time the bottle may be removed through the opening. It is to be noted, however, that in this movement, the side portion 23 closes the neck 10 so that another bottle cannot be slid into the opening 11 and, furthermore, the opening 14 is closed by the spacer member 6. It is, therefore, impossible to slide or move another bottle into delivery position until the parts have been returned to their normal position.

In the structure illustrated in Figs. 7 to 10, inclusive, I have provided a refrigerating delivery device, having the same general characteristics as that disclosed in the structure illustrated in Figs. 1 to 6, inclusive. In this structure, I have provided a container 24, the sidewalls and bottom of which are suitably insulated, as at 25, and which is provided with a cover member 26. The specific structure illustrated is adapted to contain two coin-control delivery units, suitably spaced apart to provide a spacing 27 into which refrigerating ice may be placed. Each of the units comprises a base 28 having down-turned supporting ends 28' which are adapted to support the base 28 above the bottom of the container, so that, not only may ice lie in the space 27 but it may be pushed in under the supporting base 28, or mechanically refrigerated coils may occupy this space. Extending upwardly from this base is a plurality of spacer members 29 formed of sheet metal and having lugs or teats extending through openings in the base and bent over as at 29' to connect the same to the base 28. A side member 30 extends upwardly from the base and this side member is perforated, as is the bottom

28, to permit the ready flow or passage of refrigerating liquid into the various channels formed by the channel members 29. A top member 31 is secured to the top edge of the spacer members 29 and this top member has a series of parallel openings 31' therein corresponding to the openings 9 as in the structure illustrated in Figs. 1 to 5. These openings 31' communicate with a transverse opening 32, the spacer members 29 being cut at this portion so that any bottle lying in any one of the channels may be passed through the transverse channel and its accompanying opening 32. The portion 33 of the top member 31 covers the delivery channel 34 formed between the sidewall of the container and a spacer member 29. This portion is provided with a neck opening 34' corresponding to the neck opening 10 in Fig. 3. A slide member 36 having a neck opening 37 therein and a delivery opening 38 is mounted on top of the cover portion 33, which cover portion has an opening therein sufficiently large to accommodate the full diameter of the bottle. This slide 36 is suitably connected to a coin operating device 39 and the opening 38 and the coin-operating device 39 are adapted to be enclosed by a removable covering member 40 adapted to be locked in position. To this end, the cover member 40 is provided with a pair of pins 41 on its upper edge, which project through openings in the sidewall 42 and on one side is provided with a lock 43 adapted to lock into a locking plate 44. When the cover 40 is in position, it is quite obvious that the bottle cannot be removed until the slide member 36 has been moved far enough to the left to position the opening 38 from beneath the cover member 40. At all other times, of course, it would be impossible to remove a bottle from the restricted openings 31' or 32. When it is desired to reload the device, however, it is merely necessary to remove the cover member 40 and fresh bottles may be inserted through the opening 38 and by moving the same along the neck opening 37 and the neck opening 34', they may be disposed in the various channels.

We claim as our invention:

1. A dispensing container for bottles, having a discharge station therein having a discharge opening of such dimension as to permit a bottle to be removed therethrough, a cover member for said container having a plurality of intercommunicating slots therein, one of the slots communicating with said discharge opening, the dimensions of said slots being such as to permit the projection therethrough of a bottle neck while preventing the removal of a bottle there-through, and a closure member for said discharge opening normally closing said discharge opening against the removal of a bottle from said discharge station through said discharge opening and movable to an open position to permit access to and the removal of a bottle through said discharge opening, said closure member, when in discharge position, preventing the removal of a second bottle through said discharge opening.

2. A dispensing container, having a discharge station, a cover for said container and station, having a plurality of intercommunicating slots to permit the movement of any selected bottle along said slots to said discharge station, and of such dimensions as to permit a neck of a bottle to project therethrough while preventing the removal of a bottle therethrough, and having a bottle-removing opening at said discharge station communicating with one of said slots

and a slide closure member for said bottle-removing opening having an opening sufficiently large to permit the passage of a bottle there-through and said slide closure having a slot communicating with the bottle removing opening therein and adapted for communication with said one slot, said slide in one position placing the slot therein in communication with said one slot and when in another position, placing the opening therein in communication with the bottle removing opening in the cover.

3. A dispensing container for bottles, comprising a storage compartment divided into a plurality of substantially parallel channels and a single channel in communication with said parallel channels, means preventing the bottles in said storage compartment from being vertically removed therefrom while permitting a portion of said bottle to project above said channels, a dispensing compartment adapted for communication with said single channel, a manually actuated slide for closing said dispensing compartment having a dispensing opening therein sufficiently large to permit the removal of a bottle therethrough and a restricted opening communicating with said first-mentioned opening and adapted when said slide is in one, a receiving position to connect said single channel with said dispensing opening, said slide being movable from said receiving position to a dispensing position to permit the removal of a bottle through said dispensing opening, and a removable cover for said slide adapted to close said dispensing opening when the slide is in a receiving position.

4. A dispensing container for bottles, including a plurality of parallel bottle receiving channels and a single channel communicating with said parallel channels, means closing the tops of said channels to prevent a bottle from being removable vertically therefrom while permitting a portion of the bottle to project thereabove, a discharge slide cooperating with one of said channels to control the removal of bottles therefrom having an opening sufficiently large to permit a bottle to be removed therethrough and having a receiving neck restricted to prevent a bottle from being removed therethrough, said neck adapted to connect said opening with said single channel when the slide is in normal position, a cover member for said slide adapted to cover said opening when the slide is in its normal position, and means for moving said slide to remove said enlarged opening from beneath said cover and permit a bottle to be removed through said opening.

5. A dispensing container for bottles, including a bottom member, a side wall, a plurality of vertically extending webs mounted on said bottom member to provide a plurality of par-

allel channels, said webs each having an opening therein to form a single transverse channel communicating with said parallel channels, said side wall having an opening therein communicating with the transverse channel, a slide closure member mounted on the top of said side wall and provided with an opening sufficiently large to permit the vertical removal therethrough of a bottle and a restricted neck communicating with said single channel, a cover for said slide arranged to normally close said enlarged opening when the slide is in a position to have the restricted neck coincide with said single channel, means for moving said slide to a position to move said enlarged opening from beneath said cover, and means for closing said channels against the vertical removal of a bottle therefrom except through said slide opening while permitting a portion of the bottles to project above the same.

6. In a bottle dispensing container having a plurality of open topped bottle receiving channels formed therein and a dispensing channel, said receiving and dispensing channels being intercommunicating, means for closing the tops of said receiving channels against the removal of a bottle therefrom while permitting the exposure of a bottle neck above the channels, a closure for said delivery channel having an opening therein sufficiently large to permit the passage therethrough of a bottle, and a slide member cooperating with said closure having an L-shaped slot therein terminating in an opening coincident in size with the opening in the closure for the delivery channel, said slot being sufficiently spaced relatively to the opening in the slide to prevent the slot and opening therein from being simultaneously in registration with one of the receiving channels and with the enlarged opening in the closure for the dispensing channel.

7. A dispensing container having a discharge station from which a selected bottle may be removed, a closure member for said station for normally preventing a bottle from being removed from said station and shiftable to permit the removal of a single bottle only from said station, said container having an opening therein exposing a portion of the bottles to the direct hand grasp of the operator to permit the shifting of the bottles in the container and the depositing of a selected bottle at said discharge station, the dimensions of said opening being such as to prevent a bottle from being removed therefrom and the arrangement of said opening being such that any of the bottles in the container may be removed relatively to the other bottles to the discharge station.

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