R. J. SOUTULLO.

BOTTLE REFRIGERATOR.

APPLICATION FILED MAY 1, 1920.

1,390,934. Patented Sept. 13, 1921.

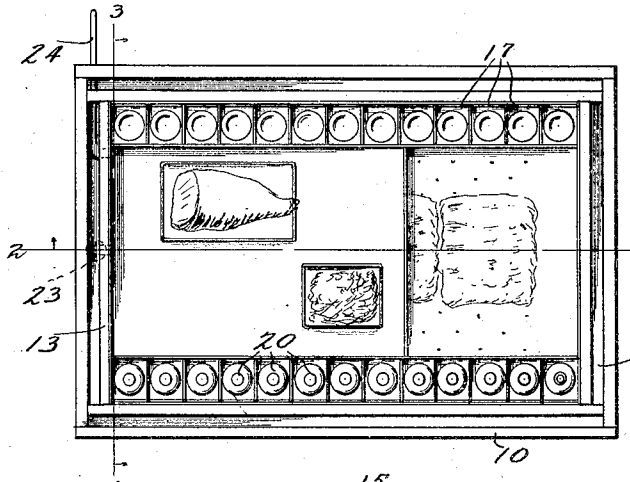


Fig. 1.

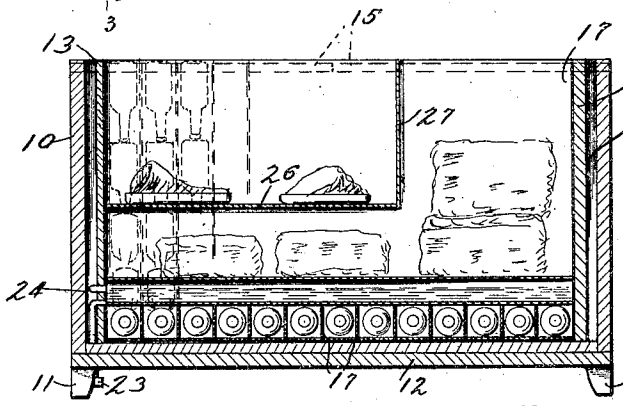


Fig. 2.

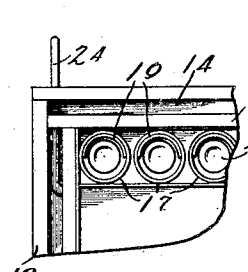


Fig. 4.

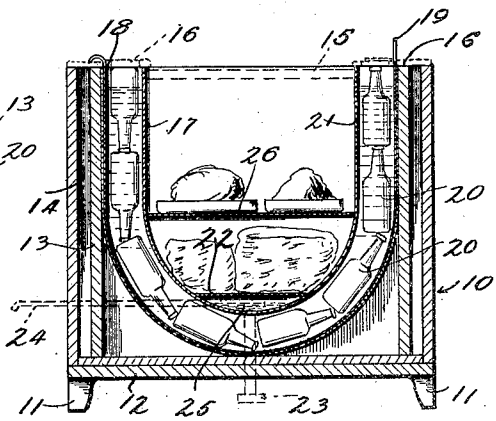


Fig. 3.

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BOTTLE-REFRIGERATOR.

1,390,934. Specification of Letters Patent. Patented Sept. 13, 1921.

Application filed May 1, 1920. Serial No. 378,324.

To all whom it may concern:

Be it known that I, RAYMOND JOHN SOUTULLO, a citizen of the United States, and a resident of Mobile, in the county of Mobile and State of Alabama, have invented certain new and useful Improvements in Bottle-Refrigerators, of which the following is a specification.

This invention relates to an improved bottle container and refrigerator adapted for use in stores or homes to receive in a novel way, bottles containing milk, soft drinks and the like, so that the same will be retained in a cool and sanitary condition with a minimum expenditure of ice and in such a manner as to greatly facilitate the dispensing of the bottles containing the colder beverages, in addition to keeping the different flavors such as of soda water or other carbonated beverages or the like, separated, and thus obviating the necessity of leaning over; fumbling over the bottles and losing considerable time in the dispensing operation.

A further object of the invention is to construct a bottle container and dispenser which is combined with a refrigerator for receiving food stuff whereby both may be kept cool and fresh with the same refrigerating medium.

A further object of the invention is to provide improved means for receiving the bottles and necessitating the insertion of a new one in order to remove a cold bottle, and means for removing all of the bottles and any broken glass in case one of the bottles should break, due to sudden contraction, said means also serving to prevent wear on the tubes or U-shaped compartments which are designed to receive the bottles in the use of the invention.

Other and further objects of my invention will become readily apparent from a consideration of the following description, when taken in conjunction with the accompanying drawings, wherein:

Figure 1 is a plan view of my improved bottle container and refrigerator;

Fig. 2 is a vertical longitudinal sectional view, taken on the line 2—2 of Fig. 1;

Fig. 3 is a vertical transverse sectional view, taken on the line 3—3 of Fig. 1; and

Fig. 4 is a plan view of a modification.

Referring to the drawings in detail there is shown an ice box or chest forming the receptacle proper or housing consisting of spaced walls and having an outer wall 10 supported if desired on legs 11 so that the bottom 12 will be disposed at a spaced distance from the floor. Within the outer wall 10 is an inner wall 13 forming an air space 14 between said walls to exclude heat and retain the box at a low temperature within, it being understood that the box is provided or may be provided with a cover of the usual or any preferred type. That is, the compartment within the inner wall may be provided with a pair of removable covers 15 and with a surrounding wall 16 formed of side and end pieces.

Arranged along opposite sides of the inner wall 13, preferably at the front and back, are a series of tubes or compartments 17 preferably of U-shaped formation and of metal so as to slidably receive therein flexible bottom strips 18, either end of which is adapted to be bent in the form of a hook 19 so that should any of the bottles 20 disposed on end therein be broken due to sudden contraction, they may be removed by removing the removable bottom or strip, the bent portion or hook 19 serving to engage and remove the broken glass. It will also be understood that the different flavors may be arranged in the different compartments or different beverages may be kept therein in any suitable containers but that new or warm bottles must be inserted and pressed into position in order to remove the cold bottles, so that the tubes or compartments will always be filled. These tubes may be of circular, rectangular or other cross section.

Disposed within the inner wall of the shell 21 forming the outer walls of the tubes, a compartment is formed for receiving various food stuff. As shown, a supporting tray 22 is provided for the ice and the same is provided with a valved drain 23 and an overflow pipe 24 for the water. The ice within the provision space and the water in the compartment 25 and in the shell between the tubes serve to cool the provisions as well as the contents of the bottles. A shelf 26 is also arranged in the provision compartment and has a vertical portion 27 dividing the same from the ice compartment arranged beneath the compartment 26 and at one side of the vertical portion 27 so as to facilitate the application of the ice and to secure a maximum storage space consistent with the requirements of the particular case.

Ordinarily, breakage of the bottles will not occur, but might happen by reason of some inherent defect in the bottles, though this may be prevented by submerging the bottles in water or like cooling liquid disposed in the tubes or compartments 17 or around the same, in the form of the invention shown in Fig. 4 of the drawings. This will cause the bottles or containers and their contents to be buoyed up somewhat and render it easier to put in warm bottles in order to remove the cold ones, thus facilitating the charging and discharging of the tubes or compartments.

In view of the foregoing, it is thought, that the operation of the device will be readily understood, and in view of the simplicity and practical value that it will readily commend itself to those skilled in the art.

I claim:

1. A combined bottle container and refrigerator comprising a receptacle proper having a shell therein, of substantially U-shaped cross section and forming an inner provision chamber and ice compartment, said shell having a series of upright U-shaped channels disposed side by side.

2. A combined bottle container and refrigerator comprising a receptacle proper having a shell therein, of substantially U-shaped cross section and forming an inner provision chamber and ice compartment, said shell having a series of upright U-shaped tubes adapted to contain and retain a refrigerating fluid therein and receive the bottles therein end to end and closures for the upper ends of the tubes.

3. A refrigerator for bottled beverages or the like comprising a receptacle provided with refrigerating means, a series of U-shaped tubes within said receptacle and adapted to receive separate series of bottles therein end to end in counterbalancing relation.

4. A refrigerator for bottled beverages or the like comprising a receptacle provided with refrigerating means, a series of U-shaped tubes within said receptacle and adapted to receive separate series of bottles therein end to end in counterbalancing relation, and removable bottle liner portions for said tubes adapted to engage and remove the contents of the tubes when removed therefrom.

5. A refrigerator comprising a receptacle having spaced walls suitably supported, a U-shaped shell within the walls and forming an inner compartment, said shell being divided into a series of channels, a drain tray supported within the inner compartment and adapted to support ice thereon, a drain for said compartment, a partition within the compartment above the drain tray and having a vertical portion dividing the same from the ice chamber, and closures for said compartments.

6. A refrigerator of the class described comprising a substantially U-shaped member adapted to contain a cooling liquid and to receive bottles or other containers therein submerged whereby to facilitate charging and discharging thereof.

7. A device of the class described including a housing receptacle, said receptacle having a U-shaped channel therein having the ends of its leg portions disposed uppermost, said channel being adapted to contain a refrigerating fluid, the ends of the channel providing an inlet for receiving objects to be cooled therein, and an outlet for the discharge thereof, assisted by the buoyancy of the fluid.

8. A refrigerating container for bottled goods and the like, comprising a receptacle having substantially U-shaped channels open at their upper ends and curved bight portions, and means for removing the contents of the channels, said means being withdrawable through the channels.

9. A refrigerator for bottles and beverages or the like comprising a receptacle provided with refrigerating means, and an upright U-shaped shell having tubes adapted to receive the bottles therein end to end and whereby one bottle will be forced out or projected from one end for removal upon the application of an additional one at the opposite end.

10. A refrigerator comprising a receptacle having spaced walls suitably supported, a U-shaped shell within the walls and forming an inner compartment, said shells being divided into a series of channels disposed side by side and closures for said compartment and the top of the refrigerator, said closures having openings above the ends of the channels.

RAYMOND JOHN SOUTULLO.