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SELF LOCKING RETAINER FOR MILK BOTTLES.

APPLICATION FILED MAR. 6, 1919.

1,302,125. Patented Apr. 29, 1919.

FIG. I

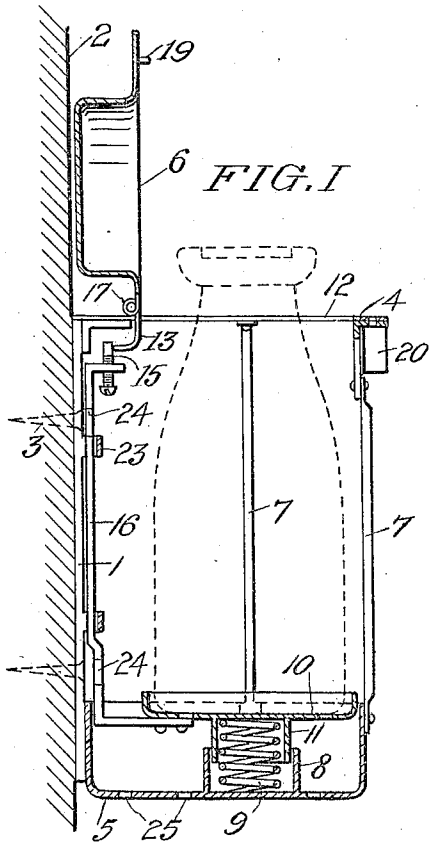



FIG. II

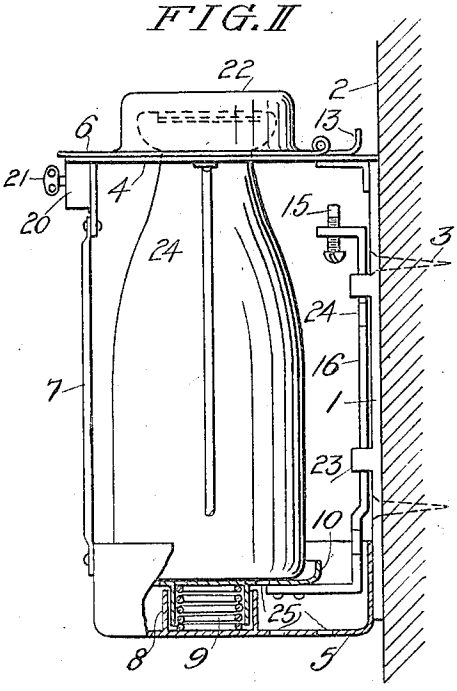
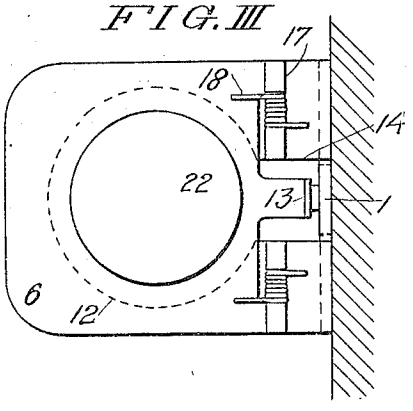



FIG. III




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# UNITED STATES PATENT OFFICE.

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## SELF-LOCKING RETAINER FOR MILK-BOTTLES.

1,302,125. Specification of Letters Patent. Patented Apr. 29, 1919.

Application filed March 6, 1919. Serial No. 280,927.

*To all whom it may concern:*

Be it known that we, FERDINAND N. BECHOFF and MAURICE M. SAMUELS, citizens of the United States, and residents of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Self-Locking Retainers for Milk-Bottles, of which the following is a specification.

The object of our invention forms a retainer for bottles containing milk, cream or other liquids which is normally open but locks itself after a completely filled bottle is placed in the retainer. With the new retainer which is normally mounted on the outside wall of the house or lodging at a convenient height above the floor it will be possible to do away with the prevailing custom of placing milk bottles openly on the floor outside the house or lodging. This not only invites theft but also allows small animals such as dogs, cats, rats, etc., to come in contact with the bottles which is unsanitary and might contribute to the spread of germs of contagious diseases. With the new retainer it is furthermore possible to keep empty milk bottles off the floor since the new retainer allows an empty bottle to be placed in the retainer without however locking the retainer. The unlocking of the new retainer can be accomplished by a key in the possession of the consumer or by a coin of suitable value.

In the accompanying drawing—

Figure I is a sectional view of the retainer in its open position.

Fig. II is a side view partly in section of the closed retainer.

Fig. III is a plan in connection with Fig. II.

Referring to the drawing, bracket 1 is fastened to wall 2 by means of suitable screws 3. This bracket has fastened to its lower end a cupshaped extension 5 and on its upper end a plate 4 which serves as a holder for cover 6 and lock 20. Both parts 4 and 5 are connected together by several braces 7 which parts together complete the retainer.

The cup 5 has a concentric projection 8 which contains a compression spring 9 and is preferably filled with grease to prevent corroding of the spring 9. On the latter rests the movable bottom 10 which will be pressed down by the weight of a filled bottle, but will not be affected by an empty bottle, the spring 9 being constructed accordingly. In order to retain the spring 9 in its proper place and to insure the relative position of cup 5 and movable bottom 10 the latter is provided with a projection 11 which fits in projection 8 on cup 5. To the movable bottom 10 facing the wall is fastened a bar 16 which serves as a locking means for the cover 6 and which will be described in detail, below.

Before it is possible to place a bottle inside the retainer it is first required to bring the cover 6 to the position shown in Fig. I. A bottle can now be inserted through the cylindrical opening 12 provided in the top piece 4 inside the retainer until the bottle rests on the movable bottom 10.

In order to retain the cover 6 in the position shown in Fig. I or during the time the retainer is either entirely empty or contains only an empty bottle, the following means are provided. The cover 6 which is hinged to top piece 4 by hinges 17 and held against part 4 through springs 18 projects beyond the hinge toward the wall to form a hook shaped extension 13 which is preferably centrally located. In case cover 6 is moved toward the wall hook 13 can pass freely through a slot 14 provided in top piece 4. However the moving of cover 6 toward the wall can only take place when a filled bottle is standing inside the retainer and it is evident that the bottle can only be taken out of the retainer with cover 6 held toward the wall as shown in Fig. I. After lifting a filled bottle from the movable bottom 10, the latter and with it locking bar 16 will move upward due to the action of spring 9. Locking bar 16 will then engage hook 13 through its adjustable end 15, as shown in Fig. I and thus keep cover 6 in its open position. If now a filled bottle is placed on the movable bottom 10, the latter and with it the locking bar 16 will move down, until locking bar 16 and hook 13 become disengaged. Under the action of springs 18 cover 6 will return to its closed position as shown in Fig. II. The bottle 24 is now securely held inside the retainer since cover 6 with its projecting piece 19 is held to piece 4 by means of a lock 20 which is self locking. In order to remove the bottle from the retainer it is necessary to open the lock 20 by using a key 21 and to lift cover 6 as described before.

By referring to Fig. II it will be noticed that the neck of the bottle projects beyond the top piece 4 in order to facilitate handling

of the bottle. This is made possible by providing cover 6 with a cylindrical elevation 22.

Locking bar 16 slides in guides 23 on bracket 1 and is provided with holes 24 through which the holding screws 3 can be installed by means of a screwdriver when the retainer is entirely empty. In the closed position of the retainer locking bar 16 is moved down into such a position that openings 24 are not opposite the screws 3, (see Fig. II) and thus manipulation of the latter is prevented.

Holes 25 are provided in bottom 10 and cup 5 to drain the retainer from rain or drip water. For the same reason cover 6 and top piece 4 are preferably arranged to form a suitable angle with the perpendicular.

Furthermore instead of using a key 21 and a lock 20 provision could be made to unlock the cover 6 by means of a coin or another suitable metal plate.

Having thus described our invention, we claim:

1. In a device of the character specified, the combination of a hinged cover having an extension on its hinged end, a movable bottom carrying an interlocking bar positioned so as to engage the extension of the cover by which the cover is held in its open position until a filled bottle is placed on the movable bottom of the retainer.

2. In a device of the character specified, a hinged cover with an extension on its hinged end, a movable bottom carrying an interlocking bar, and a spring exercising pressure to move said interlocking bar into engagement with the extension of the cover after a bottle is lifted from the bottom.

3. In a device of the character specified, a hinged cover with a hookshaped extension on its hinged end, a movable bottom carrying an interlocking bar positioned so as to engage the free end of the cover with an adjustable end so as to allow for variations in the weight of the bottle to be placed in the retainer.

4. In a device of the character specified, the combination of a hinged cover positioned to be opened against springs on its hinged end and to be held against these springs in the open position, with the retainer either empty or containing an empty bottle, by an interlocking bar actuated by another spring exercising pressure to keep said interlocking bar in engagement, with a movable bottom carrying said interlocking bar positioned to be moved away from the cover by the weight of a filled bottle and to disengage the interlocking bar and the cover and thus allow the latter to be actuated by its own springs and to be returned to its closing position and means to keep the cover locked in this position.

5. In a device of the character specified, the combination of a hinged cover, a movable bottom carrying an interlocking bar, positioned to be moved away from the cover by the weight of a filled bottle and to be moved toward the cover by a spring exercising pressure after the bottle is removed, a wall bracket acting as guide for the locking bar and having fastening screws located opposite openings in the interlocking bar when the latter is in a position corresponding with the empty condition of the retainer, while with a filled bottle inside the retainer the locking bar with its openings is moved away from the fastening screws which prevents access to the latter when the retainer is closed.

Signed at the city of New York, in the county of New York and State of New York, this third day of March, A. D. 1919.

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