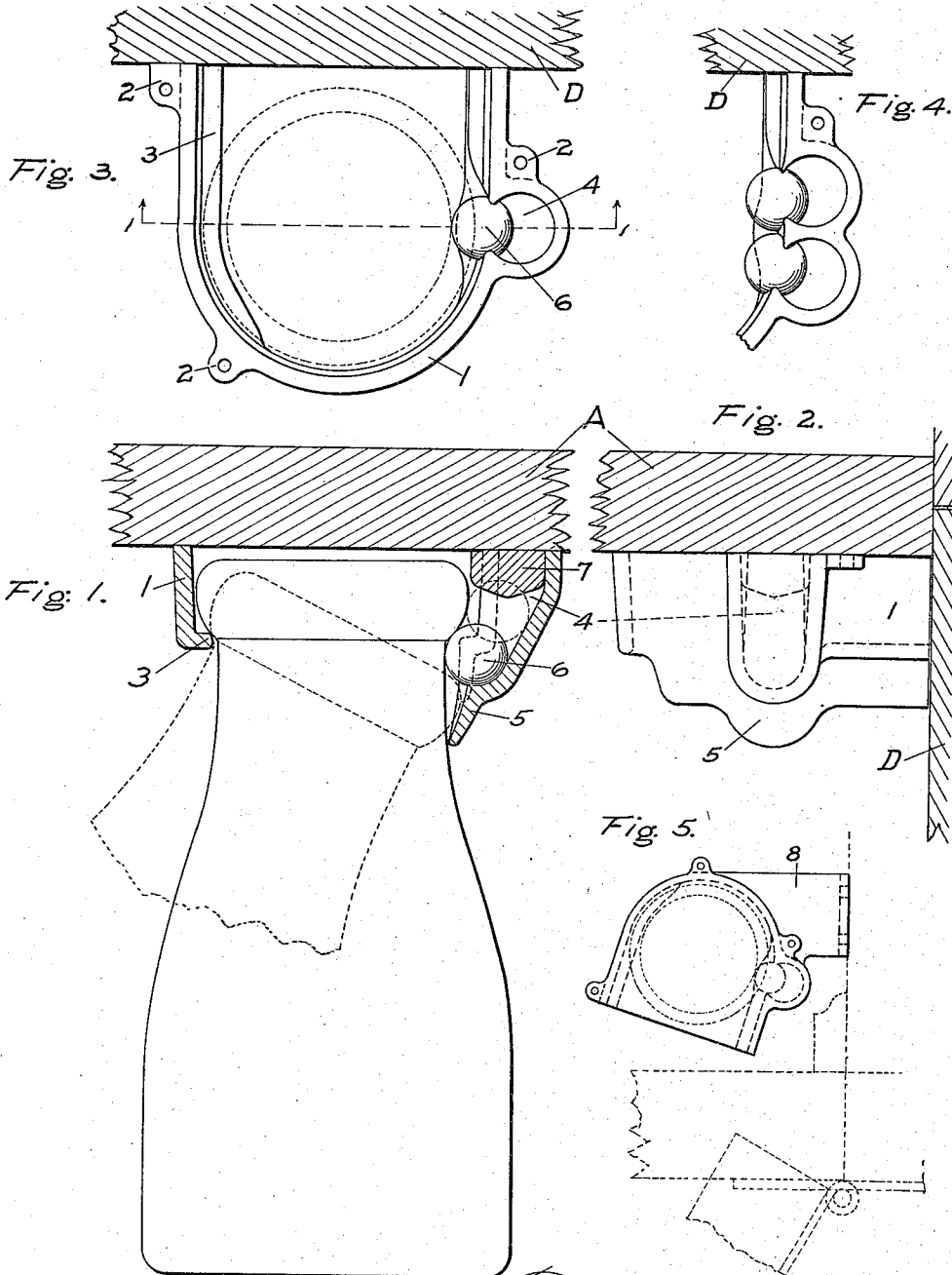


F. CANFIELD & F. O. PERMIN.
MILK BOTTLE LOCK.
APPLICATION FILED NOV. 3, 1914.

1,171,385.

Patented Feb. 8, 1916.



Witnesses:

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Att'y.

UNITED STATES PATENT OFFICE.

FRANK CANFIELD AND FRED O. PERMIN, OF PORTLAND, OREGON; SAID CANFIELD ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE LOXIT MANUFACTURING COMPANY, A CORPORATION OF COLORADO.

MILK-BOTTLE LOCK.

1,171,385.

Specification of Letters Patent.

Patented Feb. 8, 1916.

Application filed November 3, 1914. Serial No. 870,064.

To all whom it may concern:

Be it known that we, FRANK CANFIELD and FRED O. PERMIN, citizens of the United States, residing in the city of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Milk-Bottle Locks, of which the following is a specification.

Our invention relates to milk bottle locks, and more particularly to that type of bottle locks adapted to be secured to a door or window frame in such manner that the bottle cannot be removed therefrom without opening the door or window.

Among the salient objects of our invention are,—to provide in a device of the character referred to a simple, practical and efficient device which can be economically manufactured and which shall consist of the fewest possible parts; to provide in a device of the character referred to means for automatically locking the bottle in place comprising a pocket or socket in the body thereof adjacent the chamber occupied by the flanged mouth of the bottle with a loose or detached locking element movably mounted therein and adapted to automatically move into locking position as the bottle is inserted into the device.

Other advantages will be evident from the following description of one practical form of the invention shown in the accompanying sheet of drawings for purposes of illustration, and in which,—

Figure 1 is a vertical sectional view through the device with a milk bottle shown in elevation; Fig. 2 is a side elevation of the same device with the door frame and door shown in vertical sectional view; Fig. 3 is a top plan view of the invention, with a bottle indicated in dotted lines; Fig. 4 is a fragmentary view showing a slight modification with two pockets and two locking elements therein; and Fig. 5 shows the device provided with a top plate and with an arm adapted to attach it to the side of a door frame instead of at the top, the door being shown partially opened in dotted lines.

Referring now to the drawings, Figs. 1, 2 and 3, the device comprises a body 1 of U-shape, provided with attaching ears, 2—2, at its upper edge, and at one side of its lower edge with an inturned flange 3, and at its

opposite side with an inwardly opening 55 pocket or socket 4, formed in the body by an enlargement thereof at one side, said enlarged portion extending downwardly and terminating in a lip 5, slightly curved for a purpose hereinafter referred to. Said pocket 4 tapers inwardly and is provided therein with a locking element, here shown to be a ball 6, adapted when in the lower part of said pocket 4 to project inwardly under the flange of a bottle inserted into said device, and to move outwardly as it is moved upwardly therein to permit the bottle to be inserted. In the upper part of the pocket we prefer to provide a resilient element, here shown to be a piece of soft rubber, as 7, inserted into the top side of the pocket, as shown, and adapted to yield sufficiently as the bottle is inserted into the device to allow the flange of the bottle to pass the ball.

The device here shown is adapted to be secured to the top A of the door frame with the open side adjacent the door D, when the same is closed, as indicated, whereby the door closes the open side of the device and prevents the removal of the bottle. The opening into the bottom of said device is of a diameter less than the outside diameter of the bottle mouth and in order to insert a bottle into the lock it must be inserted at one side first, as indicated in the dotted line position of the bottle, Fig. 1, so that the bottle flange passes the flange 3 of the device and then the opposite side of the bottle can be moved up into the holder, moving the ball upwardly with it until the ball can pass the bottle flange, when it falls down into the bottom of the pocket 4 to a position under the bottle flange, shown in full lines. It will be noted that the lip 5 depending from the lower side of the device below the pocket curves inwardly slightly so as to just allow the bottle flange to pass it when in the position shown in dotted lines, then when the bottle is in place, as shown in full lines, the lip lies so close to the bottle that it is impossible to successfully pick the device or to get access to the ball for the purpose of pushing it upwardly in an attempt to remove the bottle.

In Fig. 4 we have shown the device provided with two balls for locking the bottle in place, thus making it more difficult to

pick the device, as both balls would have to be moved out of locking positions at once in order to remove the bottle.

In Fig. 5 we have shown the device provided with a top plate and with a laterally projecting arm 8 whereby the device can be secured down on the side of the door frame at any desired height, in substantially the position indicated in the top plan view shown in Fig. 5. The body of the device is shown standing at a slight angle so that when the door is open, as indicated in dotted lines, the bottle can be removed without the necessity of swinging the door wide open.

Thus we have provided a very simple and cheaply manufactured device into which a bottle can be quickly and securely locked by the automatic action of a detached locking element disposed in a pocket, substantially as illustrated.

We are aware that slight changes can be made in the form of the invention here shown for illustrative purposes without departing from the spirit of the invention, and we do not, therefore, limit the invention to this form, except as we may be limited by the hereto appended claims.

We claim,—

1. A locking device for a bottle having a flange around its mouth, comprising a body open at its bottom and having an inwardly projecting supporting flange around its bottom, and forming a bottom opening of less diameter than the exterior diameter of the bottle flange, and having a pocket formed in its side and opening inwardly, and a locking member movably mounted in said pocket and projecting inwardly and adapted to underlie and support the flange of a bottle placed in said locking device, said locking device having one side open to permit the removal of the bottle laterally therefrom.

2. A locking device for a bottle having a flange around its mouth, comprising a wall member of horse shoe shape and having an inturned bottle supporting flange at its lower edge, and at its opposite side having an inwardly open pocket formed in an extension thereof, a locking member movably mounted in said pocket and adapted to cooperate with said inturned flange in supporting a bottle by its flange, the diameter of the bottom opening of said device being less than the extreme outer diameter of the bottle flange to be supported therein,

whereby said bottle must be inserted in an angular position through said bottom opening and removed laterally from said locking device, substantially as described.

3. A locking device for milk bottles comprising in combination with a door frame and a door, a body open at its bottom and at one side and adapted to be secured to the door frame with its open side against said door, and having an inturned bottle supporting flange formed around its bottom opening, and having a pocket formed in one side thereof and opening inwardly, a locking member loosely mounted in said pocket and means preventing access to said locking member when a bottle is inserted therein, substantially as described.

4. A bottle lock comprising a body having an open side and an open bottom provided with an inturned bottle supporting flange therein and an inwardly opening pocket formed at one side thereof, and a ball loosely placed in said pocket, substantially as and for the purpose described.

5. A bottle lock of the character described comprising a U-shaped body having an open side and an open bottom with an inturned bottle supporting flange portion at one side at the bottom thereof and an inwardly opening pocket formed in the opposite side thereof, a ball loosely disposed in said pocket, and a resilient element mounted in the upper part of said pocket, substantially as and for the purpose indicated.

6. A bottle lock comprising a body having one open side and an open bottom with a bottle supporting flange turned inwardly at one side thereof, said body being enlarged at one side to form an inwardly opening pocket whose outer wall inclines inwardly toward the bottom of the pocket, a ball loosely disposed within said pocket and adapted to be moved upwardly and outwardly to admit a bottle through the bottom of said device and to fall by gravity under the bottle flange, whereby to lock the same in place, substantially as described.

Signed at Portland, Multnomah county, Oregon, this 29th day of October, 1914.

FRANK CANFIELD.
FRED O. PERMIN.

In presence of—
R. B. FRENCH,
J. C. STRENG.

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