

J. M. BLEY.
NON-REFILLABLE BOTTLE OR LIKE VESSEL.
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1,012,319.

Patented Dec. 19, 1911.

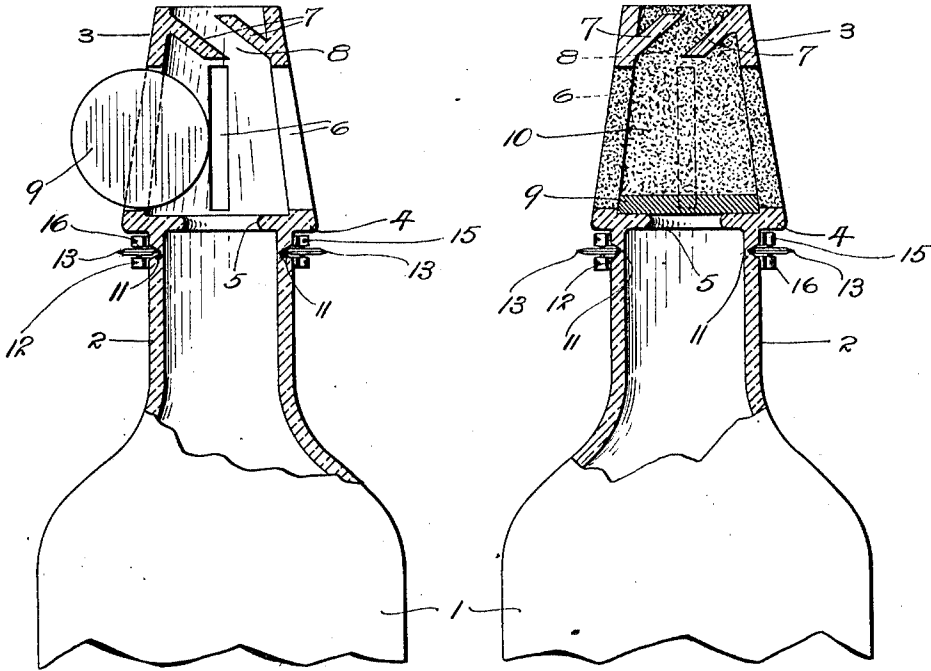


Fig. 1

Fig. 2

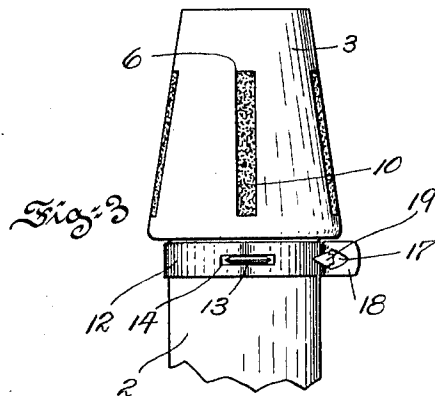


Fig. 3

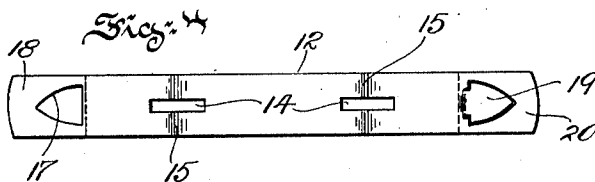


Fig. 4

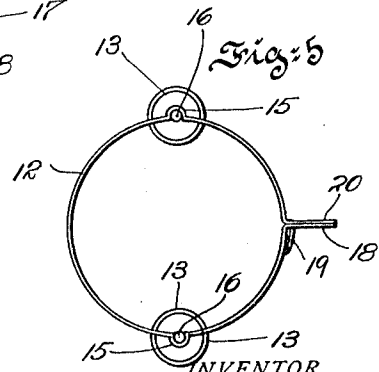


Fig. 5

WITNESSES:
Hauschild
Agnes Barker

INVENTOR.
John W. Bley
BY
William D. Jackson
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN M. BLEY, OF PHILADELPHIA, PENNSYLVANIA.

NON-REFILLABLE BOTTLE OR LIKE VESSEL.

1,012,319.

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To all whom it may concern:

Be it known that I, JOHN M. BLEY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Non-Refillable Bottle or Like Vessel, of which the following is a specification.

This invention relates to improvements in non-refillable bottles, jugs, jars and similar vessels, and has for its principal object to provide a simple and comparatively inexpensive construction of such a vessel which must be sufficiently mutilated, in order to obtain access to its contents, as to prevent its subsequent use and sale as an original package, thereby insuring purchasers and proprietors against fraudulent refilling and adulteration.

With this and other objects in view the invention consists in the construction and novel combination and arrangement of parts as will be hereinafter fully described, illustrated and finally pointed out in the claims, reference being had to the accompanying drawings, in which:

Figure 1, represents principally in section the upper portion of a bottle constructed in accordance with the invention and prior to the sealing of the same, Fig. 2, is a similar view showing the bottle in sealed condition, Fig. 3, is a fragmentary view in elevation illustrating a bottle sealed in accordance with the invention, Fig. 4, is a view of a blank suitably stamped out to form a rotary frame adapted to carry glass cutters, and Fig. 5, is a top or plan view of the rotary frame equipped with glass cutters.

In the accompanying drawing, there are illustrated features embodying the invention as applied to a bottle and in the practice of the invention use is made of a bottle 1, having a neck 2, terminating in a generally tapered mouth piece 3. Exteriorly considered the juncture of the neck and mouth piece, provide a shoulder 4, and interiorly considered an annular ledge 5, is provided. The side walls of the mouth piece 3, may be slotted as at 6, for a purpose to be presently described. Projecting inwardly from and shown as being integral with the side walls of the mouth piece at an inclination thereto and adjacent the top thereof, are ledges 7, having a passage 8, therebetween. In this class of devices, the bottle or other vessel must be filled before the mouth piece

is applied. After such filling there is forced through one of the slots 6, of the mouth piece of the bottle into the neck of the bottle a disk-like stopper 9, see Fig. 1, which may be of cork, rubber, card board or other material possessing resilient quantities. This disk 9, may be caused to seat itself upon the ledge 5, as shown in Fig. 2, by manipulating the disk through the instrumentality of any suitable tool through the slots 6, of the mouth piece of the bottle. When the disk 9, has been caused to seat itself as above described, cement 10, or like material is poured into the mouth 3, of the bottle and upon the disk 9. The cement or like material 10, may be of any desired quality and is placed within the mouth of the bottle in a plastic or semi-fluid condition and permitted to set. In this connection, it may be stated that the cement completely fills the mouth of the bottle including the slotted portion 6, and also conceals from view the ledges 7. When the cement or like material has set the contents of the bottle cannot be removed until the mouth of the bottle has been broken off.

To facilitate the breaking off of the mouth of the bottle or other vessel, use is made of a device a description of which now follows: The neck 2, of the bottle is provided below the annular ledge 5, and consequently below the disk 9, and cement 10, with a thin connecting ligament 11, which renders the neck portion frangible. In practice this frangible portion is formed by means of an exteriorly arranged annular groove of V-shape cross section. Encircling the neck 2, of the bottle is a rotary frame 12, in which are journaled glass cutters 13, arranged preferably diametrically opposite one another and calculated to track within V-shaped groove 11. Thus by rotating the frame 12, the cutters 13, are caused to cut into the ligament or reduced portion of the neck 2, of the bottle, so that the mouth portion may be readily separated from the neck of the bottle by a light blow. As the line of severance is below the disk 9, and cement 10, the contents of the bottle are immediately available without resorting to further removal of corks and the like, which obviously is advantageous.

In practice, good results have been obtained by constructing the rotary frame 12, of one piece of sheet metal or the like stamped out as shown in Fig. 4. Referring now to this figure, the frame is formed of an elongated narrow strip slotted as at 14,

and crimped as at 15, to accommodate the rotary cutters 13. In this connection, it may be stated that pins 16, see Fig. 5, may be utilized to journal the said cutters with respect to the slotted and crimped portions of the frame. One end of the band constituting the frame 12, is apertured as at 17, and bent up along the dotted lines shown in Fig. 4, to form a lateral extension 18, and the opposite end of the band is cut out to form a retaining clip 19, for passage through the aperture 17, and is also bent up along the dotted lines in said figure to form a lateral extension 20. Thus, when the rotary band encircles the neck of the bottle the retaining clip 19, securely holds the frame together and the lateral extensions 18, and 20, form convenient means by which to rotate the frame 12.

It will be seen that the bottle or other vessel is exceedingly simple and inexpensive in construction, and that it is impossible to obtain access to the contents thereof until the same is sufficiently mutilated to destroy its identity thus preventing subsequent use and sale as an original package. In this connection, it may be stated that should an attempt be made to dig out the cementitious portion of the mouth of the bottle to reach the disk 9, the ledges 7, are immediately encountered and being at an inclination they deflect the tool being used to the bottle sides in contradistinction from reaching the said disk.

What I claim is:

1. In a non-refillable bottle the combination of a bottle, the neck of which terminates in a contracted mouth piece vertically slotted for the passage therethrough of a closure disk the walls of said mouth piece having formed integral therewith above said

slots inwardly directed oppositely disposed spaced inclined flanges the free ends of which overlie one another at the mouth piece center, an inwardly directed annular flange positioned at the juncture point of said neck and mouth piece, a closure disk of a diameter equal to the diameter of the interior of the bottom of said mouth piece, a cementitious substance completely filling the mouth of the bottle including its slots and concealing from view the inclined flanges and a frangible ligament portion for said neck positioned below said flange, whereby when the mouth piece, together with said cementitious substance, disk and flange, is broken off at said point of weakening, the contents of the bottle may be immediately poured through the unobstructed bottle neck.

2. In a non-refillable bottle, the combination of a bottle provided with a frangible ligament, a rotary frame encircling the bottle neck said band comprising a flat thin strip slotted through and crimped above and below said slotted portions to accommodate glass cutters, glass cutters journaled in the crimped portions of said bands and rotating through said slots, and projected portions for the band ends to constitute a handle one of said projected portions being apertured and the other of said projected portions being stamped out to form a tongue, whereby interlocking parts are provided for retaining the band in position on a bottle neck.

In testimony whereof I have hereunto signed my name.

JOHN M. BLEY.

Witnesses:

GRANT C. OSBORNE,
AGNES CASKEY.