

H. PRELL.
BOTTLE CLOSURE.
APPLICATION FILED DEC. 19, 1911.

1,063,384.

Patented June 3, 1913.

Fig. 1.

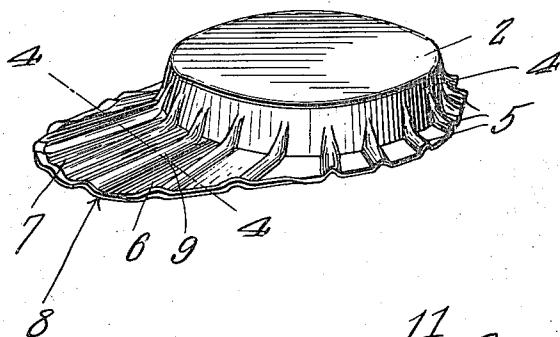


Fig. 2.

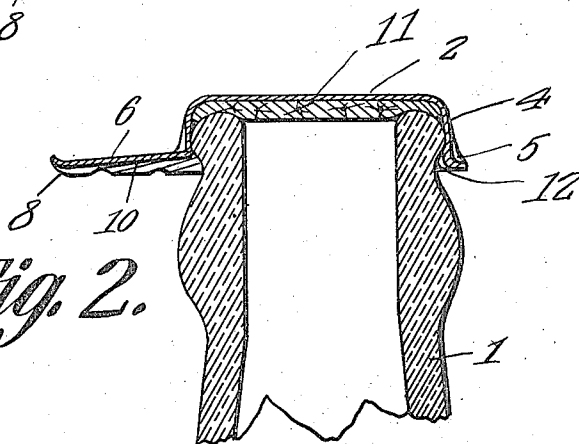
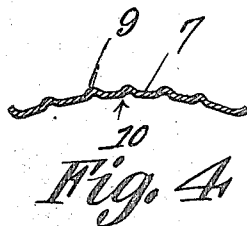
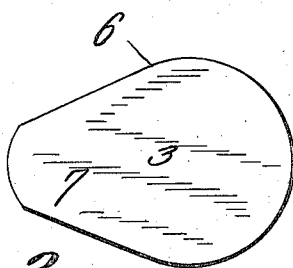


Fig. 3.



WITNESSES
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BOTTLE-CLOSURE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HUBERT PRELL, a citizen of the United States, residing at Baltimore city, State of Maryland, have invented certain new and useful Improvements in Bottle-Closures, of which the following is a specification.

My invention relates to improvements in bottle caps or closures, the object being to provide a closure which will hermetically seal the receptacle, and which can be readily removed without the use of the usual tool or opener now almost in universal use for removing caps of this character.

My invention consists in certain other novel features of construction, arrangement and combinations of parts which will be hereinafter described and pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of the cap; Fig. 2 is a sectional view of the same as applied to a bottle neck; Fig. 3 is a plan view of a blank from which the cap is formed, the same being drawn on a smaller scale than the preceding figures, and Fig. 4 is a detail sectional view on line 4-4 of Fig. 1.

1 represents a bottle neck, and 2 the cap or closure. The cap or closure 2 is stamped or cut from a single piece of sheet metal in the form of the blank 3 as indicated in Fig. 3, and then stamped in the form of the cap shown in Fig. 1, having a depending flange 4, in which is provided a plurality of corrugations 5. The flange 4 is extended outwardly substantially at right angles to the flange as indicated at 6 a distance substantially one half the circumference of the cap, and is further extended as indicated at 7 to form a lip 8, the corrugations 5 being also extended throughout the lip as indicated at 9 to lend rigidity to the lip and give it strength. The lip is also of a concavo-convex formation from its connection with the flange and by reason of which it is also stiffened as indicated at 10, against a lifting pressure applied to the lip for the purpose of removing the cap from the bottle neck. Said concavo-convex connection with the flange 4, gradually decreases the depth of said flange from the sides of said lip to its center. Thus as clearly seen in Fig. 2, the engagement of the flange with the bead on the bottle adjacent the lip, is less than

upon the opposite side, and from the narrow point of the flange, which is the center of the lip, the engagement gradually increases to the side edges of the lip.

My invention is operated as follows: The cap 2 is placed on the bottle neck with a suitable packing disk 11 provided therein, and by means of a suitable tool the corrugations 5 are forced downwardly and inwardly under the shoulder 12 of the bottle neck thereby locking the cap on the bottle neck forming an air and liquid tight sealing means, and when so secured on the bottle neck the lip 8 will extend substantially at right angles to the bottle neck as shown in Fig. 2. To remove the cap, the lip 8 is lifted upward, the leverage afforded by the lip being sufficient to lift the flange 4 gradually from the center of lip to its sides from under the bead or shoulder 12 of the bottle neck and thereby permitting the easy removal of the cap without having to resort to the use of any tool whatsoever to accomplish its removal.

It is evident that slight changes and alterations might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction as herein set forth, but;

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is;

A bottle cap, comprising a top, a corrugated flange depending from said top and adapted to engage the bead upon a bottle-neck entirely around its circumference, and an opening lip projected from said flange and being a continuation of the same from approximately diametrically opposite sides of the cap, corrugated to its edge coincident with the corrugations in the flange, and concavo-convex in cross-section from its connection with said flange, thereby gradually decreasing the depth of said flange from the sides of said lip to its center.

In testimony whereof I affix my signature in presence of two witnesses.

HUBERT PRELL.

Witnesses:

E. WALTON BREWINGTON,
BROWN M. ALLEN.