

F. W. SCHWENCK.
BOTTLE CLOSURE.
APPLICATION FILED JULY 22, 1912.

1,060,369.

Patented Apr. 29, 1913.

FIG. 1

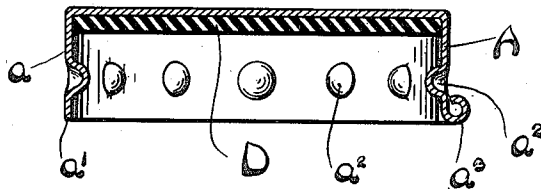


FIG. 2

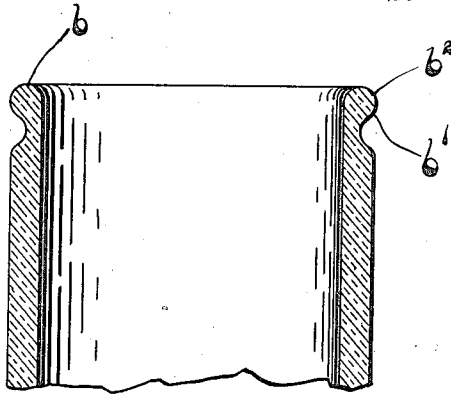


FIG. 4

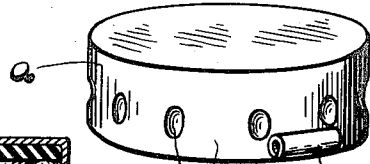


FIG. 3

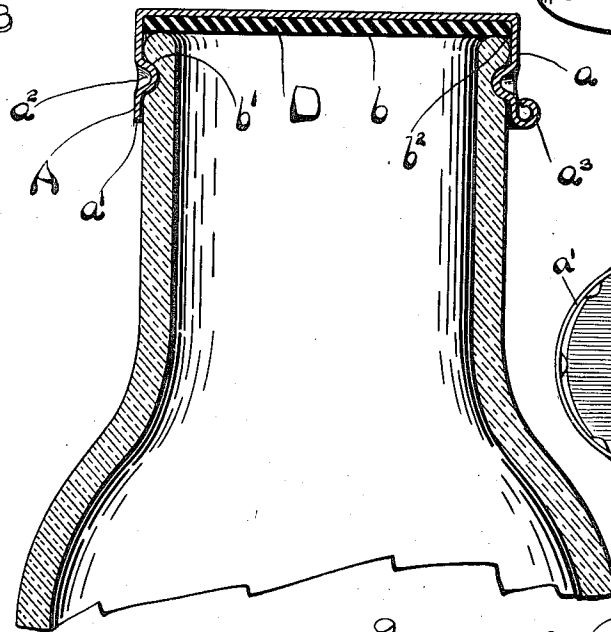
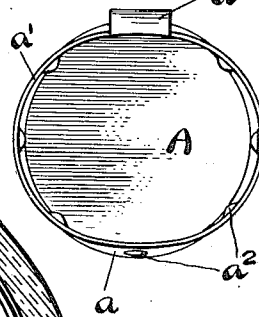


FIG. 5



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BOTTLE-CLOSURE.

1,060,369.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FREDERICK W. SCHWENCK, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Bottle-Closures, of which the following is a specification.

The object of my invention is a bottle closure, which may be secured, without the use of implements, in position to close a bottle securely, and may be removed without implements therefrom.

In the accompanying drawings Figure 1 is a central sectional view of a cap of my invention. Fig. 2 is a vertical sectional view of a neck and lip of a bottle adapted to receive the cap. Fig. 3 is a vertical sectional view of a bottle closure embodying my invention. Fig. 4 is a perspective view of the cap shown in Fig. 1. Fig. 5 is an inverted plan view of the metal cap shown in Figs. 1, 3 and 4.

The cap A has a depending annular flange a with a plain annular or elliptical edge a' . Above the edge a' the flange a is encircled by a series of indentations a^2 which are preferably of a semi-spherical shape. The flange of the cap has at one side a curled lug a^3 , which is integral with the cap. It is formed by leaving below the edge of the flange a projection of the metal, which is curled upward and outward upon itself. In the top of the cap is a disk D of elastic material, preferably of cork.

Immediately below the lip b of the bottle is formed a shoulder b' . This shoulder may be formed by making an annular groove in the neck of the bottle. This annular groove preferably is made of a shape such that its cross-section will be semi-circular, in order that the indentations a^2 will fit into it snugly.

The cap is secured upon the bottle by resting its plain elliptical edge upon the tapering lip b^2 and then exerting a downward pressure upon the top of the cap, which will cause the flange to expand sufficiently to cause the indentations to pass over the lip of the bottle and to snap into the annular groove. When the cap is in place on the bottle, the metal flange a is slightly distorted or strained, and consequently the indentations a^2 are held or forced by the resiliency of the strained metal, into engagement with the divergent face of the shoulder b' . This holds the cap securely in place on the bottle and the disk D is firmly and continuously pressed against the top or lip of the bottle, by the cap. When it is desired to remove the cap an upward pressure upon the lug a^3 may be exerted by means of the thumb to dislodge the indentations from the annular groove and to release the cap from the bottle.

What I claim is:

The combination of a bottle, having an external annular shoulder beneath its lip and a metal cap closing the bottle and comprising a top portion, a continuous and resilient flange integrally formed with the top portion and normally distorted by the shoulder formed on the bottle when the cap is in place on the bottle, projections formed on the inner face of the flange and yieldingly held into engagement with the divergent face of the shoulder on the bottle, by the distortion of the flange, a disengaging lug formed on the lower edge of the flange, and a sealing disk located between the top portion of the cap and the lip of the bottle and surrounded by the flange.

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Witnesses:

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