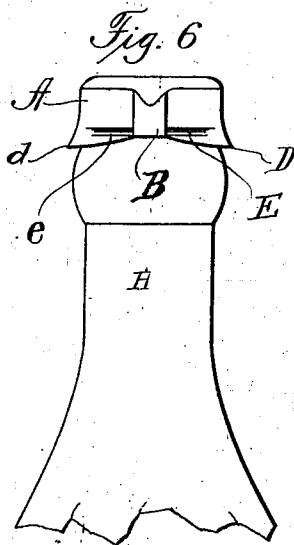
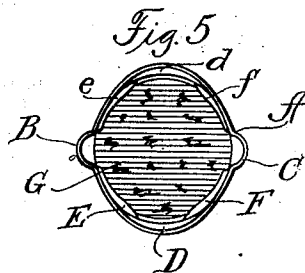
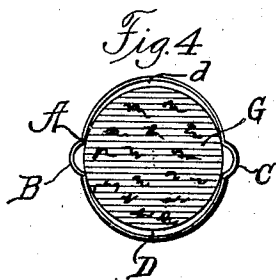
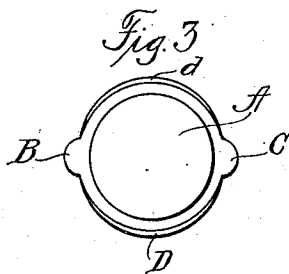
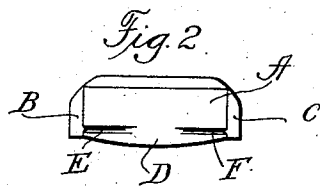
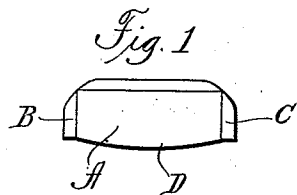


G. KOCH.
BOTTLE CAP.

APPLICATION FILED MAR. 5, 1910. RENEWED JAN. 5, 1912.

1,037,496.

Patented Sept. 3, 1912.



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UNITED STATES PATENT OFFICE.

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BOTTLE-CAP.

1,037,496.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed March 5, 1910, Serial No. 547,465. Renewed January 5, 1912. Serial No. 669,719.

To all whom it may concern:

Be it known that I, GUSTAV KOCH, citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Bottle-Caps, of which the following is a specification.

This invention relates to bottle caps, and belongs to that class of closures for bottles in which the caps are secured by crimps or indentations forced into a groove extending exteriorly around the mouth of the bottle.

The object of this invention is the production of a cap provided with means for insuring adequate elasticity to enable the cap to be readily applied and removed in the customary manner, the caps being secured to the bottles by continuous crimps or indentations, as distinguished from the usual series of separated indentations, giving a continuous contact with the groove around the mouth of the bottle, and not merely a number of individual points of contact as in the ordinary closures. In this invention the crimps have special arrangement with respect to the devices giving the cap the necessary elasticity, and the operation of crimping each cap slightly distorts its shape, causing the particularly formed and disposed edge of the cap between the devices mentioned as affording elasticity, to increasingly project beyond the surface of the neck of the bottle and to give a convenient and advantageous purchase for the opener, as hereinafter more fully explained.

The construction and arrangement constituting this invention are illustrated in the accompanying drawings, of which—

Figure 1 represents a side view before the cap is crimped. Fig. 2 is a similar side view after the cap has been crimped. Fig. 3 is a top plan view of the invention as illustrated in Fig. 1. Fig. 4 is a plan view from below of the invention as shown in Fig. 1, and Fig. 5 is a plan view from below showing the invention as set forth in Fig. 2. Fig. 6 is a side view of the neck of a bottle to which this invention has been applied, and shows the increased projection of the downwardly-curving edges between the devices for elasticity, bringing those edges within easy reach of the ordinary opener.

The same reference letter refers to the same part throughout the description and drawings.

The cup-shaped body A of this invention

has formed on opposite sides thereof the two hollow, outwardly convex extensions B and C, vertically arranged, which give the body A sufficient elasticity to permit its being applied and removed from the mouth of a bottle. Between the extensions B and C, the lower edge portions of the body A are curved and extended slightly downwardly and outwardly with respect to the bottom of the extensions B and C, as shown in Figs. 1, 3 and 4. The curved edges are designated by the letters D and d, and, the position of those edges are shown in the Figs. 1, 3 and 4, before the body is secured to a bottle.

It will be noted in Figs. 2, 5 and 6, that the four crimps E, F, e, f, are continuous throughout their length, and that there is a line of contact with the bottle groove instead of a series of separated points of contact. The actual closure is made by the cork disk G shown within the body A of this invention, which is pressed down upon the mouth of the bottle H in the usual manner. The continuous crimps secure the cap to the bottle very strongly, and it will be observed, for example, in Fig. 6, that each crimp begins at the side of the extension B and extends toward the middle of the wall of the body A between the extensions. During the crimping operation, the body A is distorted slightly, and the downwardly-extended curved edges D and d are caused to project to a somewhat greater extent, as shown in Figs. 5 and 6, than before the crimping operation. The edges D and d are in that way forced within convenient reach of the ordinary opener. It may be explained here, that the opener may be applied to the extensions B and C, in opening the bottle. But, it is found to be easier to dislodge the body A from its position upon the bottle, by causing the opener to engage one of the projecting edges D or d, apparently for the reason that the crimps are more readily drawn from the groove of the bottle when the power is applied to one of the edges D and d midway between the extensions B and C.

Having now described this invention and explained the mode of its operation, what I claim is:—

1. A bottle cap, comprising a cupped body portion having a vertical cylindrical wall and hollow outwardly-convex extensions of said wall arranged vertically and opposite each other one on either side of said body

whereby the body is rendered elastic, the lower part of said wall between the extensions being extended downwardly lower than the extensions, and the said wall between the extensions being provided with indentations beginning at the sides of said extensions and extending toward each other whereby the portions of the vertical wall midway between the said extensions are bulged outwardly from their original positions.

2. A bottle cap, comprising a cupped body portion having a vertical cylindrical wall, the said wall having modified portions constructed and arranged opposite each other whereby the body is rendered elastic, and

the said wall between said modified portions being provided with indentations for holding the cap upon a bottle, the said indentations beginning at the sides of the said modified portions of the wall and extending toward each other whereby the portions of the vertical wall midway between the said modified portions of the wall are bulged outwardly from their original positions.

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

GUSTAV KOCH.

Witnesses:

WM. NARATH,
ABE M. GLASS.

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