E. W. KAISER.

BOTTLE CLOSURE.

APPLICATION FILED APR. 4, 1919.

1,324,354. Patented Dec. 9, 1919.

Fig. 1.

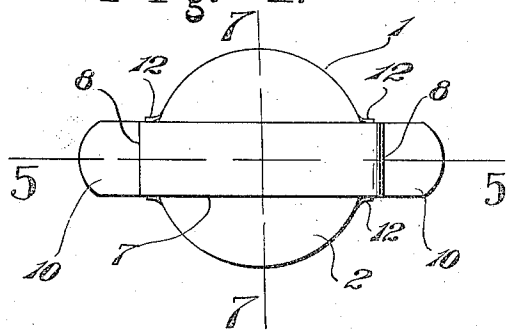
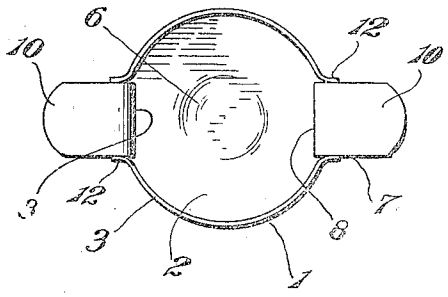


Fig. 2.



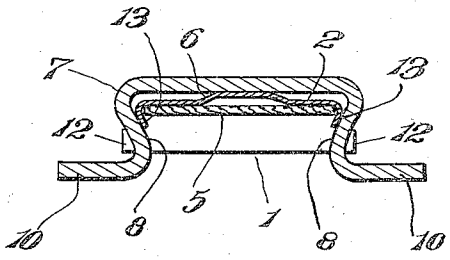


Fig. 5.

Fig. 3.

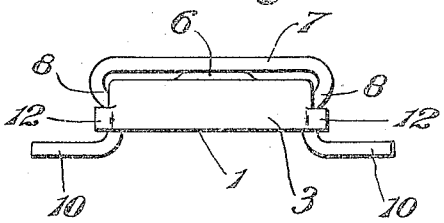
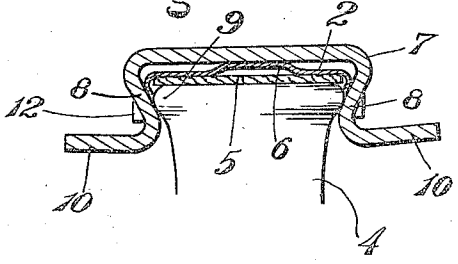


Fig. 6.



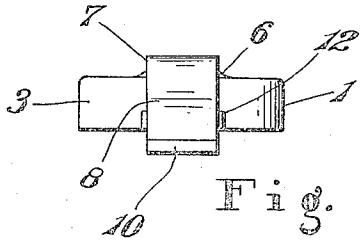


Fig. 4.

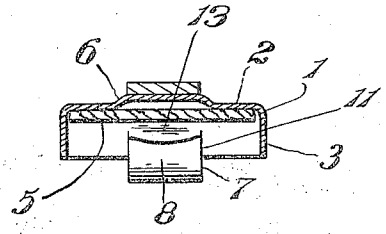


Fig. 7

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BOTTLE-CLOSURE.

1,324,354. Specification of Letters Patent. Patented Dec. 9, 1919.

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To all whom it may concern:

Be it known that I, EMANUEL W. KAISER, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Bottle-Closures, of which the following is a specification.

This invention relates more particularly to bottle closures which are provided with fastening devices of the spring-clip type and adapted to be removed by the fingers or without an opener.

The objects of the invention are to provide an improved construction which will effectively maintain a secure sealing of the bottle; to avoid riveting the parts together and at the same time provide a structure in which the parts will not readily become separated; to provide a freedom of movement between the parts so as to obtain a firm seating of the gasket upon the bottle top; to obtain a strong gripping action by the clip without increasing the thickness or resiliency of the cap; to secure simplicity of construction and ease of operation, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate the same parts throughout the several views.

Figure 1 is a plan of a closure embodying my invention;

Fig. 2 is a bottom view of the same;

Fig. 3 is an elevation or edge view of the closure;

Fig. 4 is an elevation at right angles to Fig. 3;

Fig. 5 is a cross-section on line 5—5 of Fig. 1;

Fig. 6 is a similar cross-sectional view showing the cap mounted upon a bottle top, and

Fig. 7 is a cross-section on line 7—7 of Fig. 1.

In the specific embodiment of the invention illustrated in the drawing, the reference numeral 1 indicates a bottle cap having a disk-like crown or body portion 2 and a peripheral depending flange or skirt 3, said closure adapted to fit over the outside of the mouth end of a bottle 4. As is usual in such devices, a wafer or gasket 5 of cork or other suitable material is carried within the body or crown 2, this gasket 5 sealing the bottle by being pressed upon the upper end thereof by said crown. The central portion of this crown 2 is offset upwardly, that is, pressed or stamped up to project from the body oppositely from the skirt, this offset constituting a bulge 6.

For holding the cap upon the bottle top, a clip 7 is provided the middle part of which extends diametrically across the cap and downwardly at the periphery thereof in the direction of the skirt 3, these downwardly projecting portions of the clip 7 being inclined toward each other, thereby constituting jaws 8 for engaging under the bead 9 around the upper end of the bottle neck. By virtue of the resiliency of the clip, it is held upon the bottle and the jaws wedgingly draw downwardly under the bead 9 thereby seating the gasket 5 firmly upon the bottle top. It is to be noted that pressure of the clip is upon the bulge 6 at the middle of the cap, so that the cap will seat properly and uniformly upon the bottle top irrespective of slight irregularities, the cap having a limited freedom of movement with respect to the clip in all directions and not being riveted thereto.

At the lower ends of the downwardly projecting portions or jaws 8 of the clip 7 are provided finger pieces 10 which preferably project radially outward with respect to the cap and which may be engaged by one's fingers for removing the stopper from the bottle.

In order to retain the clip and cap associated in proper relation at all times, the skirt 3 of the clip is preferably cut away or recessed upwardly from the free edge of the skirt for such width as necessary to permit the passage of the inwardly sloping jaws 8, 8 therethrough, as at 11, 11, the side edges of such recesses being preferably bent outwardly to provide tabs or ears 12 which retain the clip upon the cap and limit edgewise displacement and relative rotation. These tabs or ears 12 are preferably formed from the parts of the metal of the cap which are displaced from the skirt to permit passage of the clip jaw, the bending of the metal for this purpose serving likewise to reinforce the cut edge. The portions 13 of the skirt above the cut away parts or recesses, are preferably bent inward sufficiently to engage and hold the gasket 5 in place within the top.

In use, the clip 7 and cap 1 are retained in relation by the inward inclination of the jaws 8 which causes them to pass through

the cut-outs or recesses 11, thereby preventing separation of the parts in any direction, the tabs 12 preventing lateral displacement upon spreading the jaws in applying the stopper to a bottle. Obviously the cap may be forced down upon the bottle neck, the jaws 8 being spread in so doing and snapping under the bead 9 on the bottle, thereby drawing the clip down upon the neck. Lateral displacement is prevented because of the depending skirt 3 of the cap fitting around the bottle top. Removal of the stopper is effected by upward pressure upon the outwardly projecting finger pieces 10 provided for that purpose, and it will be noted that these finger pieces afford sufficient hold and leverage upon the clip so as not to require any tools for the removal thereof from the bottle.

Various detail modifications and changes may be made in manufacturing my improved bottle closure without departing from the spirit and scope of the invention, and I do not wish to be understood as limiting myself except as required by the following claims when construed in the light of the prior art.

Having thus described the invention, what I claim is:

1. A bottle closure comprising in combination a cap, and a resilient clip therefor having a middle cap-engaging portion and bottle engaging and gripping jaws for securing said cap and clip upon a bottle, the jaws also coöperating with the cap to permanently associate the cap and clip and at the same time permitting limited rocking movement of said associated parts with respect to each other so as to adjust the cap to a bottle.

2. A bottle closure comprising in combination a cap having a skirt and central bulge projecting in opposite directions, the skirt being adapted to fit down around the neck of a bottle and prevent lateral displacement of the cap, and a clip for securing the cap to a bottle said clip having means for permanently and loosely associating it with the cap, said clip engaging the cap at its bulge in pressing the cap upon a bottle, whereby the cap may adjust itself to a bottle top.

3. In a bottle closure, a cap having a depending skirt provided with outstanding ears, and a clip having a portion extending across the cap and downwardly at opposite sides of the skirt between said ears thereby preventing lateral displacement of the clip with respect to the cap.

4. In a bottle closure, a cap having a depending skirt provided at its lower edge with opposite recesses, and a clip having a portion extending across the cap with downwardly and inwardly inclined opposite ends lying in said recesses.

5. In a bottle closure, a cap having a depending skirt provided at its lower edge with opposite recesses having outstanding ears at their side walls, and a clip having a portion extending across the cap and downwardly through said recesses between said ears.

EMANUEL W. KAISER.