Jan. 16, 1940. G. H. HUTAFF, JR 2,187,454

BOTTLE CAP

Filed Jan. 28, 1938

Fig. 1.

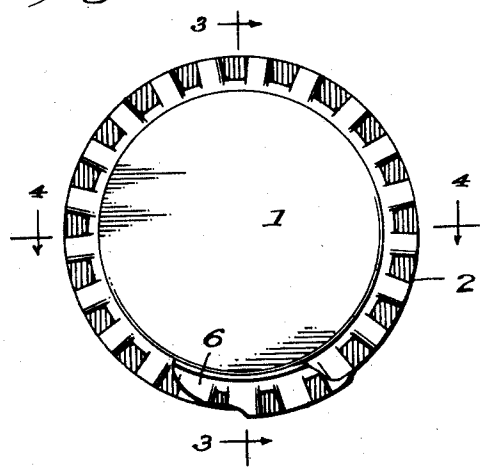


Fig. 3.

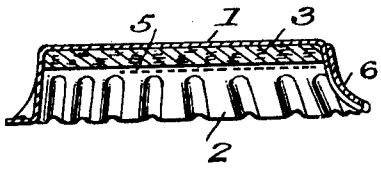


Fig. 4.

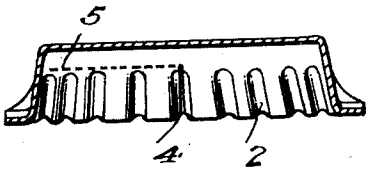


Fig. 2.

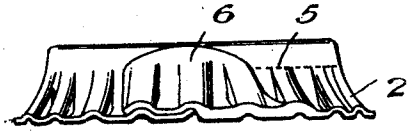


Fig. 6.

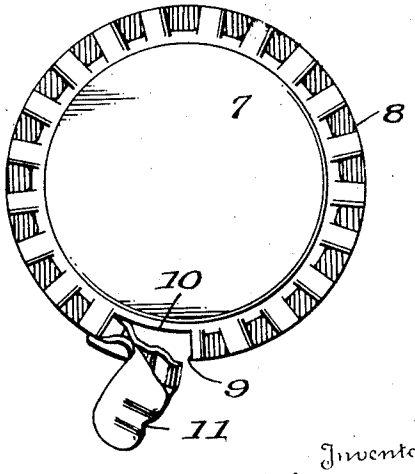
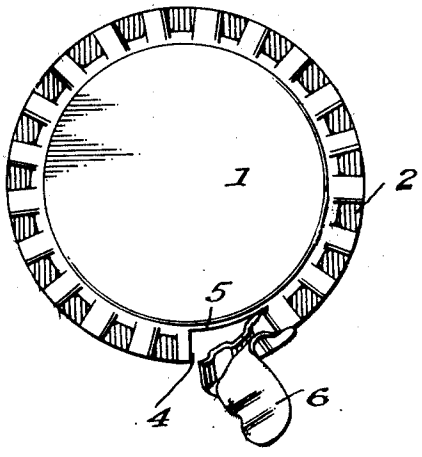


Fig. 5.



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2,187,454

BOTTLE CAP

George H. Hutaff, Jr., Wilmington, N. C.

Application January 28, 1938, Serial No. 187,519

2 Claims. (Cl. 215—46)

My invention relates to new and useful improvements in bottle caps and more particularly to a cap of the so-called crimped type, the primary object of the present invention residing in the formation of the cap in such a manner that it may be readily removed from the bottle or other receptacle without the use of a bottle cap remover or similar implement.

Another object of the invention consists in forming a cap of the character described formed and adapted to be removed from the bottle or other receptacle by tearing the crimped flange portion along a weakened line formed by perforations or indentations.

A further object of the invention resides in the formation of a cap of the character described with a tongue or tab portion which normally extends circumferentially of the crimped flange and lies between the top of the cap and the lower edge of the flange, this tab or tongue being adapted to be bent from its normal position to provide a grip for the fingers whereby a portion of the flange may be torn to release the cap from the mouth of the bottle or other receptacle.

Still another object of the invention consists in so forming the cap, of the character described, with a tab or tongue portion which may be bent into a position providing a finger grip, the finger grip extending in such a position that considerable leverage may be had in tearing a portion of the flange of the cap to remove the same from the bottle or other receptacle.

As another object I provide a cap, of the crimped type, of a formation permitting it to be used with the usual form of capping machine, said capping machine applying the cap to the mouth of the bottle or other receptacle which is usually provided with a bead.

With the above and other objects in view, which will appear as the description proceeds, my invention consists in the novel details of construction and arrangement of parts, described in the following specification and illustrated in the accompanying drawing, and while I have illustrated and described the preferred embodiments of the invention, as they now appear to me, it will be understood that such changes may be made as will fall within the scope of the appended claims.

In the drawing:

Fig. 1 is a top plan.

Fig. 2 is a side elevation.

Fig. 3 is a transverse vertical section on the line 3—3 of Fig. 1 looking in the direction of the arrows.

Fig. 4 is a transverse vertical section on the line 4—4 of Fig. 1 looking in the direction of the arrows.

Fig. 5 is a top plan showing the tongue or tab positioned for tearing and a portion of the flange torn for removal of the cap; and

Fig. 6 is a view similar to Fig. 5 showing a slightly modified form of the invention wherein the flange is torn to the left instead of to the right as shown in Fig. 5.

In the drawing 1 indicates the top portion of a crimped cap having the depending crimped flange 2 and the cork disc insert 3 of usual formation. In carrying out my present improvements a vertically extending slit or opening 4 is formed in the flange 2 and extends from the bottom edge of the flange as shown more particularly in Fig. 4 of the drawing. Extending circumferentially of the flange, on a line with the upper end of the slit or opening 4, is a line of indentations or perforations shown at 5, this line of indentations or perforations being positioned at a point just below the inner face of the cork insert 3 and extending for about one-fourth of the circumference of the flange, although I wish it understood that the length of the line of indentations or perforations may be as desired and as found adaptable in the art to which the invention relates.

At its bottom edge, to the right of the slit or opening 4, as shown in Figs. 1, 2, 3 and 5 of the drawing, or to the left, as shown in Fig. 4, the flange is formed with a depending extension which is bent upwardly to lie parallel with the flange, as shown more particularly in Figs. 1 and 2 of the drawing, this turned-up extension providing a tab or tongue 6 which overlies the slit or opening 4 and extends circumferentially of the flange between the bottom edge thereof and the top of the cap. This tongue or tab is crimped with the flange and lies so close to the flange that the cap may be applied to the bottle mouth or other receptacle by the usual form of capping machine.

When it is desired to remove the cap the free end of the tab or tongue may be raised by the fingers and the tab or tongue bent into the position shown more particularly in Fig. 5 of the drawing. It will be noted that the tab or tongue extends in such a direction and in such a position that it may be readily grasped with the fingers and by pulling thereon the flange will be torn along the line of perforations or indentations 5 from the top of the slit or opening 4. With a section or segment of the flange torn or removed the cap can be readily removed from the mouth of the bottle or other receptacle without the use

of a cap remover or other implement. With the tongue or tab in the position shown in Fig. 5 considerable leverage may be obtained in tearing the flange.

In Fig. 6 of the drawing I have shown a slightly modified form of the invention which is of the same construction as that shown in Figs. 1 to 5 inclusive, the only difference being that the tab or tongue, which forms the finger-grip for tearing a portion of the flange is positioned on the opposite side of the slit or opening 4 so that the flange may be torn towards the left. In this form of the invention the top of the cap is shown at 7, the crimped flange at 8, the vertically extending slit or opening at 9, the line of indentations or perforations at 10 and the tongue or tab at 11.

It is thought that from the above the detailed construction will be understood as well as the manner of use. I lay particular advantage on the fact that the tongue or tab, which forms the finger-grip in tearing, lies parallel with the flange of the cap and extends circumferentially thereof, between the bottom edge of the flange and top of the cap, to cover the slit or opening 4, as shown in Fig. 4, or the slit or opening 9, shown in Fig. 6. This forms a tight seal. At the same time the tongue or tab, forming the finger-grip, lies so close to the flange of the cap that the cap may be applied to the bottle mouth or other receptacle with the usual form of capping mechanism. The free end of the tab or tongue may be readily raised by the fingers, when desired, so that the tab or tongue may be bent into the position shown in Figs. 5 or 6 to provide the necessary leverage to tear the flange along the line of perforations or indentations.

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

1. A bottle cap including a depending flange having a vertically extending opening from its bottom edge and a line of indentations or perforations extending for a portion of the circumference of the flange from one side of the opening at its inner end, and a tab or tongue connected for a portion of its length to the bottom edge of the flange at that side of the opening from which the line of indentations or perforations extend, the remaining portion being free, said tab or tongue being turned upwardly to extend parallel with the flange with its free portion overlying and extending beyond the vertically extending opening in the flange and the said free portion of the tab adapted to be bent outwardly from its normal parallel position with the flange to provide a projecting finger grip for use in tearing the flange from the vertically extending opening along the line of indentations or perforations.

2. A bottle cap including a depending flange having a vertically extending opening from its bottom edge and a line of indentations or perforations extending for a portion of the circumference of the flange from one side of the opening at its inner end, and a tab or tongue connected for a portion of its length to the bottom edge of the flange at that side of the opening from which the line of indentations or perforations extend, the remaining portion being free, said tab or tongue being turned upwardly to extend parallel with the flange within the confines of the top and bottom edges of the flange and with its free portion overlying and extending beyond the vertically extending opening in the flange and the said free portion of the tab adapted to be bent outwardly from its normal parallel position with the flange to provide a projecting finger grip for use in tearing the flange from the vertically extending opening along the line of indentations or perforations.

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