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3,120,899

COMBINED BOTTLE CAP AND OPENER

Filed Dec. 7, 1961

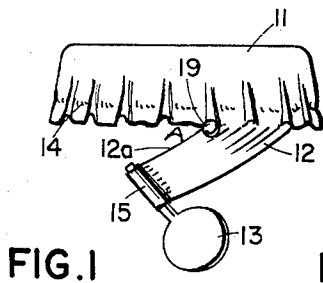


FIG. 1

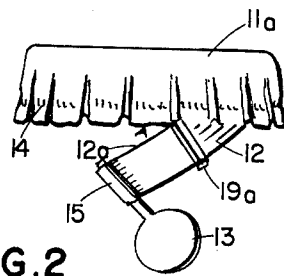


FIG. 2

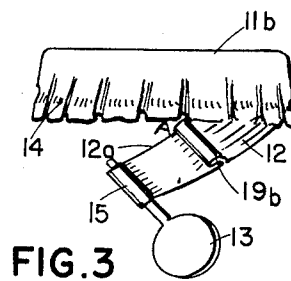


FIG. 3

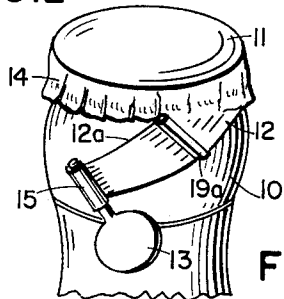


FIG. 4

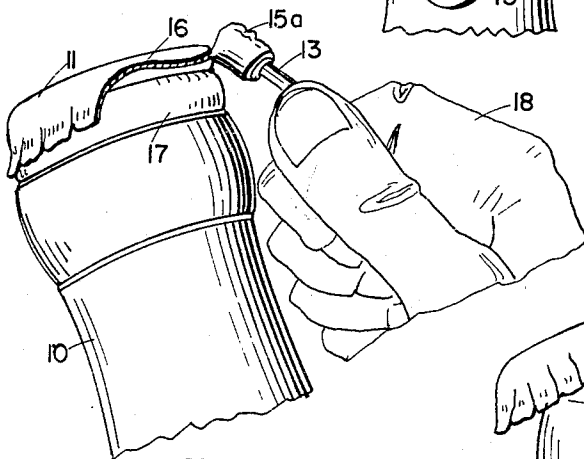


FIG. 5

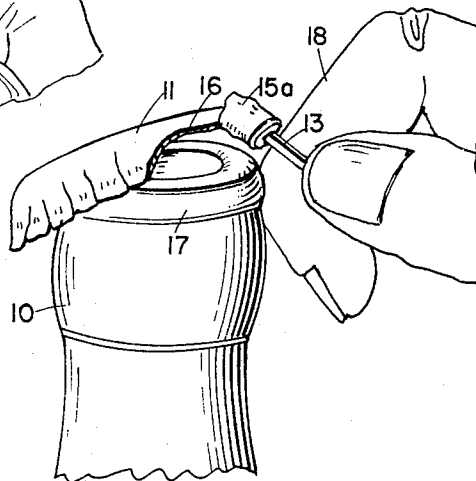


FIG. 6

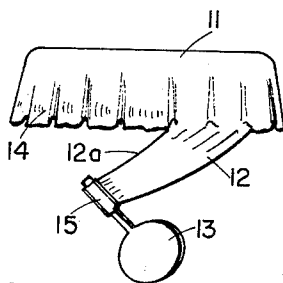


FIG. 7

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COMBINED BOTTLE CAP AND OPENER

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5 Claims. (Cl. 215-46)

This invention relates to a combined bottle cap and opener and is a continuation-in-part of co-pending application Serial No. 95,149, filed March 13, 1961, now abandoned.

It is a primary object of the present invention to provide a bottle cap integrally incorporating means to manually peel off the cap and thus separate it from the neck of the bottle.

It is a further object of the present invention to provide a cap opener which is an integral part of the cap and which requires only a relatively slight touch of the fingers of a hand and a few turns to push the cap open.

A still further object of the present invention is to provide a practical, efficient and economical combined crown bottle cap and opener which will fill a long-felt need and eliminate the necessity of carrying extra openers, such as, for example, to picnics or other outdoor gatherings; and that will also eliminate the hasty and sometimes annoying searching for an opener in the picnic outfit or kitchen drawer, or while traveling in a car or other vehicle.

The device, according to the invention, provides an immediate at-hand instrumentality, as the opener means are part of the cap itself. This practical and efficient attachment to the crown cap is what distinguishes and differentiates it from any other prior cap opener, being always attached as a part of the crown cap, which (as will be evident from what follows) rolls off the retaining teeth or corrugations of the skirt of the crown cap, thereby loosening it and lifting off the cap more easily than conventional openers. It will also eliminate the hurting, scratching or other injury to the hand of the operator which often occurs with other hand openers. The device is easy to use and unfurls with a few twists of the fingers.

Yet another object of the present invention is to provide a combined crown cap and opener which can be readily manufactured and which can be used with slight alteration by manufacturers of crown caps currently in use.

Another object of the present invention is to provide a crown cap for bottles and the like, which is integrally provided with an extending portion angularly disposed with relation to the crimped skirt of the cap and which, together with a raised portion in substantial contact with the skirt, is adapted to be easily curled or wound by a key engaging therewith, whereby the cap may be readily removed from the container.

A still further object of the present invention is to provide a bottle closure comprising a cap having a depending skirt portion, an extension integrally connected to the skirt portion, and a raised portion on the extension in proximity to the skirt, both the cap and extension being made of the same material, the extension being angularly disposed with relation to the skirt portion whereby the meeting angular edge of the extension with the perimetric edge of the skirt forms an angle for facilitating the ripping of a portion of the skirt by a key, aided by the leverage achieved by riding over the raised portion, when the key engaging the extension is turned.

These and other objects and certain advantages of the invention will appear as the description proceeds, it being understood, however, that it is not intended that the invention be limited to the exact details described herein which illustrate two embodiments of many which may be realized or obtained as a result of the knowledge gained through or gleaned from an understanding of the invention; and it is further intended that there be included as part of the invention all such obvious changes and modi-

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fications thereof as would occur to a person skilled in the art to which this invention pertains and as would fall within the claims appended hereto.

In the drawing:

FIG. 1 is a front view of a combined crown cap and opener according to a preferred embodiment of the invention;

FIGS. 2 and 3 are views similar to FIG. 1 showing modifications of the article;

FIG. 4 is a view showing a combined crown cap and opener similar to FIG. 1 applied to the neck portion of a bottle;

FIG. 5 is an enlarged view similar to FIG. 4, showing the cap in the process of being sheared for removal from the bottle;

FIG. 6 is a view similar to FIG. 5, showing the crown cap being removed from the bottle; and

FIG. 7 is a view of a combined crown cap and opener, according to a modification of the invention.

Referring now more particularly to the drawing, there is disclosed a crown cap 11 made of metal and which may be of conventional design. An angularly disposed tongue or extension 12 projects from the corrugated skirt portion 14. It is material that the edge 12a of the tongue or extension 12 form an angle with the skirt 14 of the cap 11, as indicated by the letter A. The purpose of the relative disposition of the extension or tongue 12 with relation to the skirt 14 of the cap 11 will be explained below. Affixed to the curled terminus 15 of tongue 12 is a key 13. The cap 11 is affixed to the lip portion 17 of the neck portion 10 of a bottle or other suitable container to cover the opening of the bottle in conventional manner.

As heretofore stated, it is desired that the tongue or extension 12 be so disposed with relation to the skirt 14 that an angle A may be formed so that, as the key is being turned, the ripping of the skirt 14 will be facilitated. In order to further facilitate and to provide a leverage to aid in the ripping of the skirt 14, there is provide a raised portion indicated in FIG. 1 as a bead 19, in FIG. 2 as a bar 19a, and in FIG. 3 as a crimp 19b, substantially coincident with the apex of angle A.

It is quite apparent from FIGS. 5 and 6 that by turning the key as, for example, with fingers of a hand 18, the material comprising the tongue or extension 12 will first be rolled (as indicated at 15a) and then, by continuous turning of the key 13 over the raised portion 19a, a portion of the skirt 14 will be ripped or torn away thereby facilitating the easy lifting of the cap 11 from the neck 10 of the bottle.

If further desired, the handle portion of key 13 may be decorated or carry an advertisement or imprint of the bottle, or other indicia.

Although particular embodiments of the invention have been described in detail herein with reference to the accompanying drawing, it is to be understood that the invention is not limited to these precise embodiments and that various changes and modifications may be effected therein without departing from the scope and/or spirit of the invention except as defined in the appended claims.

I claim:

1. A container closure comprising a crown cap having a depending skirt portion, an extension integrally connected to said skirt portion and being angularly disposed with relation to said skirt portion whereby the meeting angular edge of said extension with the perimetric edge of said skirt portion forms an acute angle, a raised portion disposed on said extension and substantially coincident with the apex of said angle, and a key affixed to the free terminal portion of said extension, said extension, said raised portion and said key cooperating in relation to said angle and in such a manner that when said key is turned said extension will be rolled over said key

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and over said raised portion and then a part of said skirt portion will be rolled over said key, whereby the cap may be removed from the container.

2. A container closure comprising a crown cap having a depending skirt portion, an extension integrally connected to said skirt portion and being angularly disposed with relation to said skirt portion whereby the meeting angular edge of said extension with the perimetric edge of said skirt portion forms an acute angle, a raised portion disposed on said extension and substantially coincident with the apex of said angle, said closure having substantially uniform, uninterrupted strength, and a key affixed to the free terminal portion of said extension, said extension, said raised portion and said key cooperating in relation to said angle and in such manner that when said key is turned said extension will be rolled over said key and over said raised portion and then a part of said

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skirt portion will be rolled over said key, whereby the cap may be removed from the container.

3. A container closure according to claim 1 wherein said raised portion comprises a bead.

4. A container closure according to claim 1 wherein said raised portion comprises a bar.

5. A container closure according to claim 1 wherein said raised portion comprises a crimp.

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