G. E. STAHL.

BOTTLE CAP.

APPLICATION FILED JAN. 25, 1909.

933,795. **Patented Sept. 14, 1909.**

Fig. 1.

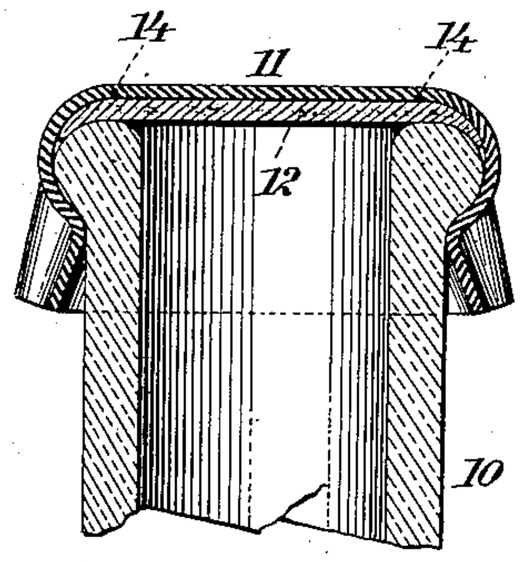


Fig. 2.

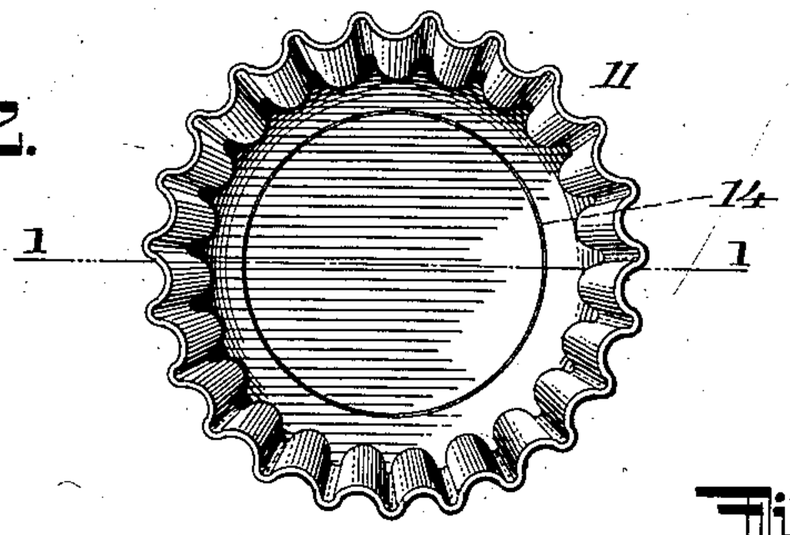


Fig. 3.

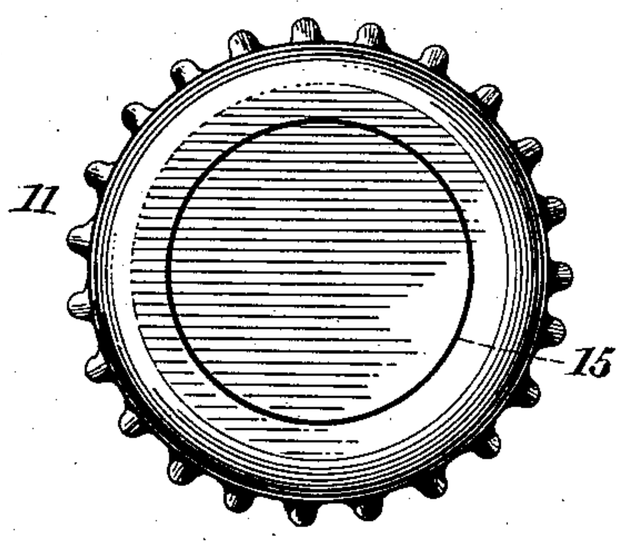
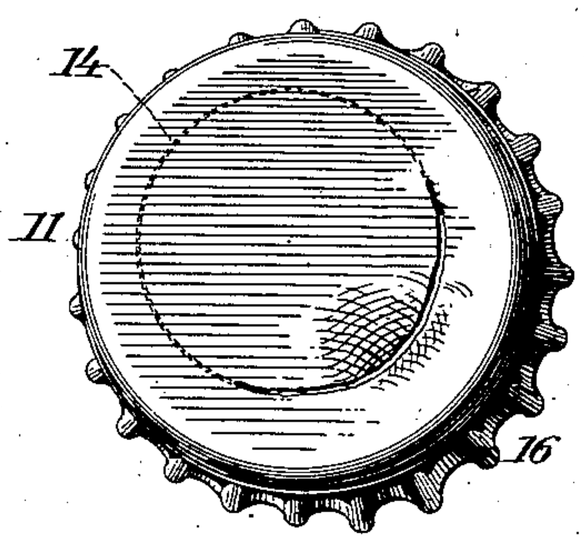


Fig. 4.



WITNESSES:

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BOTTLE-CAP.

933,795. Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed January 25, 1909. Serial No. 473,988.

To all whom it may concern:

Be it known that I, GEORGE EMIL STAHL, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Bottle-Caps, of which the following is a specification.

The invention relates to improvements in bottle-caps, and consists in the novel cap structure hereinafter described and particularly pointed out in the claims.

It is well known that bottle-caps, such as are used on beer and other bottles, are frequently after having been removed from the bottles, gathered up, sold, re-shaped and used again, the successive uses of the caps continuing so long as the metal remains capable of being reshaped or restored to its original condition. These caps when removed from bottles are frequently permitted to fall on the floor where they remain until the saloon or bar-room is on the following morning cleaned up, at which time the caps are separated out from the other refuse, and they finally become sold, reshaped and used again.

The purpose of the present invention is to render impossible the obviously objectionable practice of selling and again using bottle caps which have once been removed from bottles, and to this end my invention resides in a bottle cap of such structure that it will on being pried from a bottle become so distorted or torn that it cannot be reshaped for further use.

The bottle-caps to which my invention pertains are formed of stiff sheet metal of substantially uniform thickness throughout and are removed from the bottles by means of variously constructed devices commonly known as "cap lifters." The caps have a crown portion, usually containing a sealing disk, and a depending peripheral corrugated flange to engage an annular shoulder on the bottle.

In carrying out my invention, I form a cut in the metal of the cap extending partly through the metal and so located that on the first removal of the cap from a bottle it will insure such distortion or tearing of the cap that the latter cannot be successfully reshaped and used again. The cut I form in the metal will preferably be in the outline of a circle and so located that when the cap is applied it will become disposed over the upper edges of the bottle neck, in which position the weakened line in the cap caused by the cut will be subject to distortion by the upward prying action of a cap-lifter applied to the flange of the cap.

The invention will be more fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a vertical section, on the dotted line 1—1 of Fig. 2, of a bottle cap embodying my invention, the cap being shown on the neck of a bottle; Fig. 2 is a bottom view of the cap, the circular cut-line being shown as having been made in the under surface of the cap; Fig. 3 is a top view of a similar cap showing the circular cut-line as having been made in the top surface of the cap, and Fig. 4 is a top view of the cap of Figs. 1 and 2 shown in the condition it will have after having been pried upwardly at one edge from off of a bottle, the cap being bent and distorted and torn along the cut-line adjacent to that edge of the cap at which the upward pressure was applied.

In the drawings, 10 designates the bottle-neck, 11 the cap and 12 a sealing disk therein. The cap 11 is not of unusual construction, with the exception of the feature thereof embracing my invention, the said cap being made from sheet metal of substantially uniform thickness throughout and formed with a depending corrugated flange to embrace the annular shoulder around the mouth of the bottle. In accordance with my invention, in its preferred embodiment, I form in the lower surface of the metal of the top of the cap a cut 14 on a circular line extending part way through the metal and so located that when the cap is on a bottle, the said cut-line 14 will be in line with the thickness of the bottle-neck and adjacent to the edges of the top of the cap, as shown in Fig. 1. The cut-line 14 in lieu of being formed in the underside of the top of the cap, may, if preferred, be formed in the upper surface of said cap, as denoted at 15 in Fig. 3. I prefer, however, to form the cut-line in the

lower or under surface of the cap, since when in such location any upward pressure applied against the lower edge of the flange of the cap will tend to spread open the said cut-line.

My invention is, as hereinbefore explained, to prevent more than one use of the cap and to so construct the cap that the upward pressure applied to one of its edges in removing it from a bottle will so distort or otherwise injure the cap that it cannot be reshaped and used again. In Fig. 4 I illustrate the effect on the cap of my invention, by its removal from a bottle, the upward pressure having been applied to the side 16 of the cap. It will be observed that the upward bending of the cap caused by the cap-lifter has disfigured the cap and caused a break to occur along those portions of the cut-line 14 adjacent to the side 16, and obviously the cap shown in Fig. 4 could not be restored to a condition permitting its further use on a bottle.

If the cap should not break along the line of the cut therein during its removal from the bottle, the cap will nevertheless become so distorted that upon an attempt being made to re-shape the same in a press it will fracture along the cut or become so disfigured that it would not be acceptable for further use. The thickness of the metal in the cap or depth of the circular cut therein will determine whether the cap will break at once during its removal from the bottle or during the attempt to reshape the same in the recrimping press, but in either event the cap becomes rendered unfit for second use on a bottle. The caps of my invention cannot, therefore, be gathered up from the floors of saloons and like places and reshaped and used again, as is a common practice with respect to the caps at present customarily in use. My invention therefore avoids the use of unsanitary caps on bottles and the possible consequences of any such use.

What I claim as my invention and desire to secure by Letters-Patent, is:

1. A bottle-cap having a depending flange to engage a shoulder on the neck of a bottle and removable from the bottle by being pried therefrom, said cap being of sheet metal and having a cut-line extending partly through the same for insuring the effectual distortion of the cap; substantially as and for the purposes set forth.

2. A bottle-cap having a depending flange to engage a shoulder on the neck of a bottle and removable from the bottle by being pried therefrom, said cap being of sheet metal and having a cut-line extending partly through the same for insuring the effectual distortion of the cap, and said cut-line extending around the crown of the cap so as to be affected at whatever point a removal tool may exert its pressure against said flange; substantially as and for the purposes set forth.

3. A bottle-cap having a depending flange to engage a shoulder on the neck of a bottle and removable from the bottle by being pried therefrom, said cap being of sheet metal and having a cut-line extending partly through the same for insuring the effectual distortion of the cap, and said cut-line extending around the crown of the cap in position to be located over the thickness of the sides of the bottle-neck when the cap is in position thereon; substantially as and for the purposes set forth.

Signed at New York city, in the county of New York and State of New York, this 22nd day of January A. D. 1909.

GEORGE EMIL STAHL.

Witnesses:

ARTHUR MARION,

CHAS. C. GILL.