May 9, 1933. L. TOWY 1,907,615

MILK BOTTLE CAP

Filed May 25, 1932

Fig. 1.

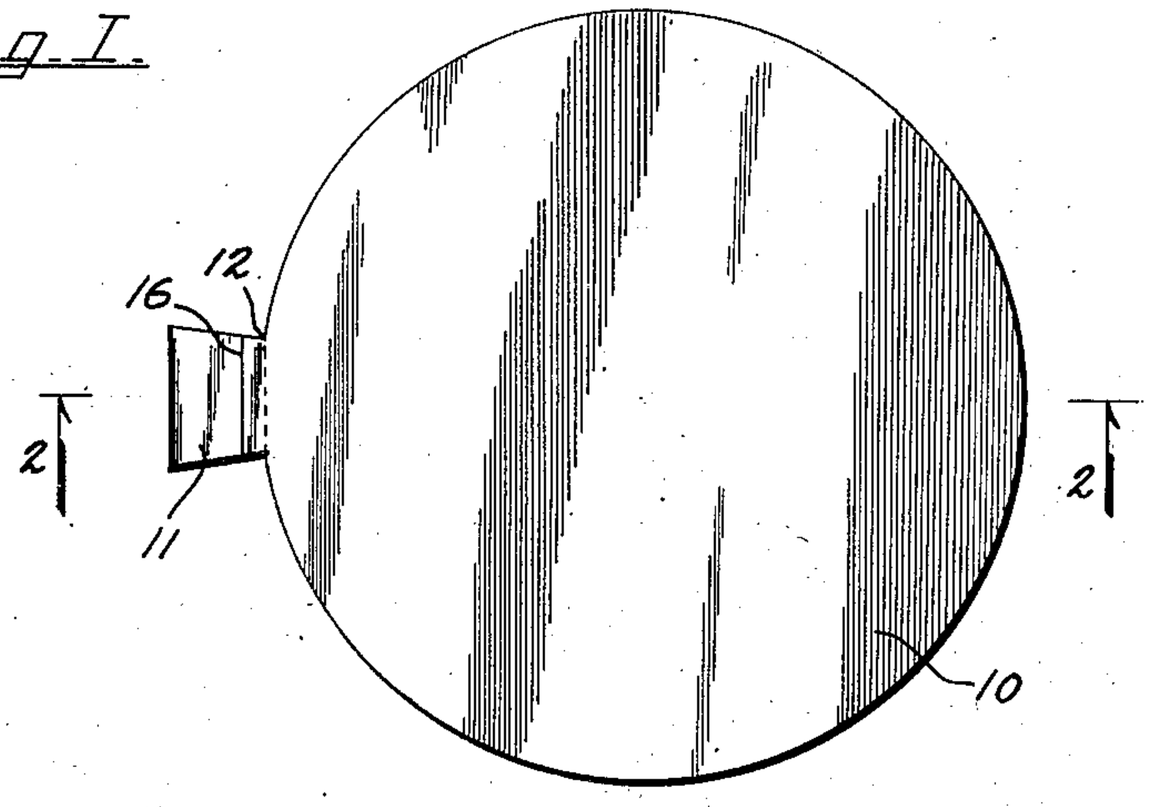


Fig. 2.

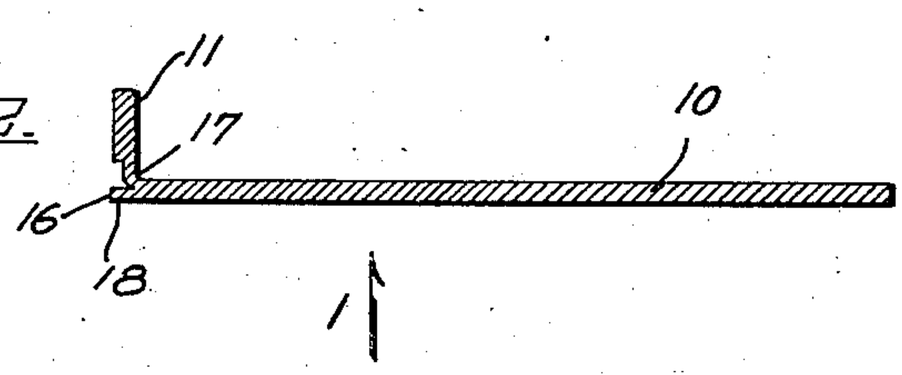
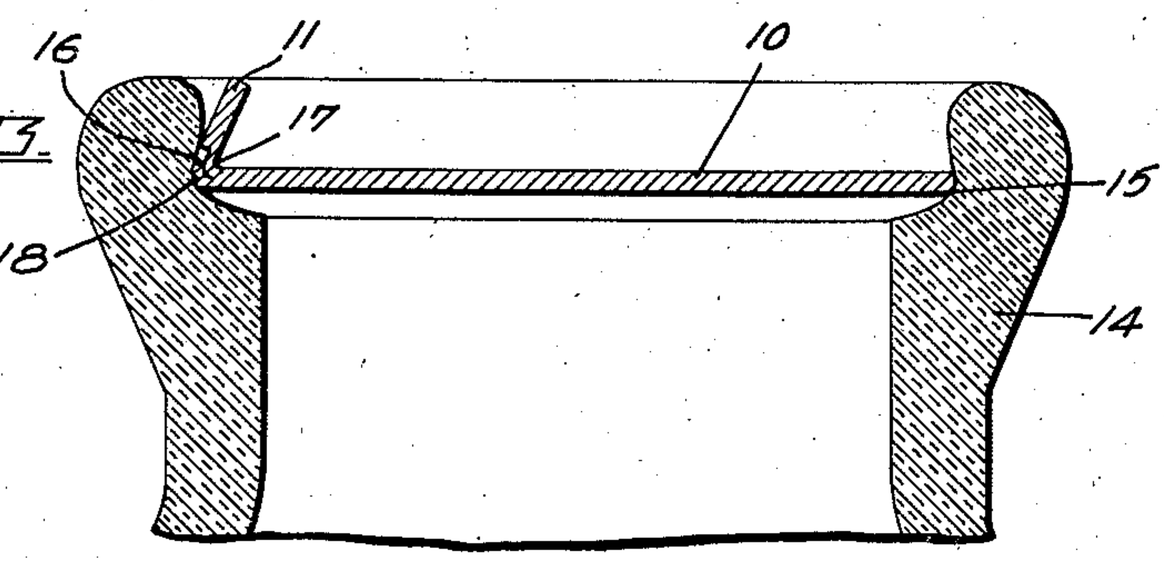


Fig. 3.



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UNITED STATES PATENT OFFICE

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MILK BOTTLE CAP

Application filed May 25, 1932. Serial No. 613,437.

This invention relates to improvements in caps for bottles and similar receptacles. Heretofore milk bottle caps have been provided consisting of a section of flat paperboard, cardboard, or equivalent material, having a marginal integral tab which on seating the cap in the mouth of a milk bottle is bent upwardly to facilitate removal of the cap on opening the bottle. Caps of similar construction of somewhat larger size have likewise been employed to close cartons, paper barrels and the like. Usually insofar as I am aware these marginal tabs on the cap are not made bendable on any particularly defined fold line nor are they weakened along any transverse line. Consequently it is sometimes difficult to properly seat the cap and to form a leak proof closure.

An object of tne present invention is to provide a cap of this character having a tab foldable on a weakened line, facilitating the bending of the tab in such a manner that it may bend on an arcuate line to conform to the seat for the cap.

It is also an object of the invention to have a cap with a tab so foldable as to provide a small readily bendable lip adjacent the line of fold, which can be bent upwardly to snugly fit against the seat for the cap and maintain a tight leak proof closure for the receptacle at the location of the tab.

With the foregoing and other objects in view, which will be made manifest in the following detailed description, and specifically pointed out in the appended claims, reference is had to the accompanying drawing for an illustrative embodiment of the invention, wherein:

Fig. 1 is a plan view illustrating the under side of a closure cap embodying the invention.

Fig. 2 is a sectional view taken substantially upon the line 2—2 upon Figure 1 illustrating the tab as having been bent upwardly without having been actually seated during the upward bending of the tab.

Fig. 3 is a sectional view of a milk bottle neck illustrating the cap embodying the invention as having been seated therein.

Referring to the accompanying drawing, wherein similar reference characters designate similar parts throughout, the cap consists of a body 10 usually circular in form to conform to the shape of a milk bottle mouth or the top of a carton or paper barrel as the case may be. It has an integral marginal tab 11 and the whole of the cap is originally in the same plane or in a flat condition. The cap is preferably formed of paperboard, cardboard, or an equivalent material, the conventional material used in milk bottle caps being of a laminated paper structure. The marginal tab 11 is preferably, although not necessarily, of a dovetailed shape as clearly shown in Figure 1 and in the style of caps of this character heretofore employed on bending of the tab 11 the tab has a tendency to bend on a straight line joining the corners 12 and 13 at the base of the tab. As will be readily understood, this tab is subsequently used to facilitate removal of the cap from the neck 14 of the milk bottle or similar receptacle. When the tab tends to fold on a straight line joining corners 12 and 13 it is apparent that as the shape of the seat 15 is circular that this line, being a secant of a circle, does not have the cap perfectly tight at the base of the tab. The present invention contemplates scoring or cutting the tab 11 on a transverse line 16 which is spaced slightly, namely about one-thirty-second of an inch from the arcuate line joining corners 12 and 13. The cut or scoring extends about half the distance through the thickness of the tab or it may extend a shorter distance through the tab. With this weakened line present it is possible to bend the tab 11 upwardly quite easily, as shown in Figure 2. The bending does not occur exactly on the line of the cut 16 but instead occurs closer to the arcuate line joining corners 12 and 13. The reduced thickness of the uncut portion of the tab facilitates the bending. The lower laminations of the paper beneath the bendable portion 17 tend to remain in the same plane as the body 10 forming a lip 18 which is quite readily bendable. That is if one of the caps embodying the present invention is placed on a flat surface and the tab is bent

upwardly, the lip 18 will tend to remain in the position shown in Figure 2. However, during capping operations when the capper, either a hand capper or a machine capper, rams the cap onto its seat in the mouth of the milk bottle 14, the tab 11 is not only bent upwardly but the small lip 18 is also bent upwardly, as clearly shown in Figure 3, thus forming a layer of paper of half the thickness of the cap which is disposed between the bendable portion 17 and the wall of the seat. This additional thickness of the upwardly bent lip maintains a tight joint across the base of the tab so that the cap when in applied position is substantially liquid proof throughout its engaging periphery. When it is desired to open the bottle, the top of the tab 11 is merely grasped and the cap is lifted bodily off of its seat.

From the above described construction it will be appreciated that a simple, novel and advantageous milk bottle cap is provided having important advantages over caps provided with marginal tabs which are uncut or unscored. The improved construction is such that it can be employed equally well with the conventional hand capper or machine capper and may be likewise handled in stacked form in the tubular containers conventionally used to load hand cappers and machine cappers.

Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A cap for bottles and similar receptacles comprising a circular piece of paperboard or equivalent material having a marginal tab, there being a cut on the under side of the tab spaced slightly from the line of attachment to the body of the cap which facilitates upward bending of the tab and defines a small readily bendable lip which on insertion into the receptacle will be bent upwardly over the edge of the body to maintain a tight closure.

2. A cap for bottles and similar receptacles comprising a section of paperboard or equivalent material having a marginal tab, said tab being foldable on a line connecting edges of the section across the tab, there being a cut on the under side of the tab spaced outwardly slightly from said line forming a small readily bendable lip between said cut and line which on insertion of the cap into a receptacle will be bent upwardly against the upwardly bent tab to maintain a tight closure.

In testimony whereof I have signed my name to this specification.

LILLIAN TOWY.