

March 13, 1945.

L. P. WEINER

2,371,372

SECONDARY CLOSURE FOR SPIRITUOUS BEVERAGE BOTTLES

Filed May 4, 1942

2 Sheets-Sheet 1

FIG. 1.

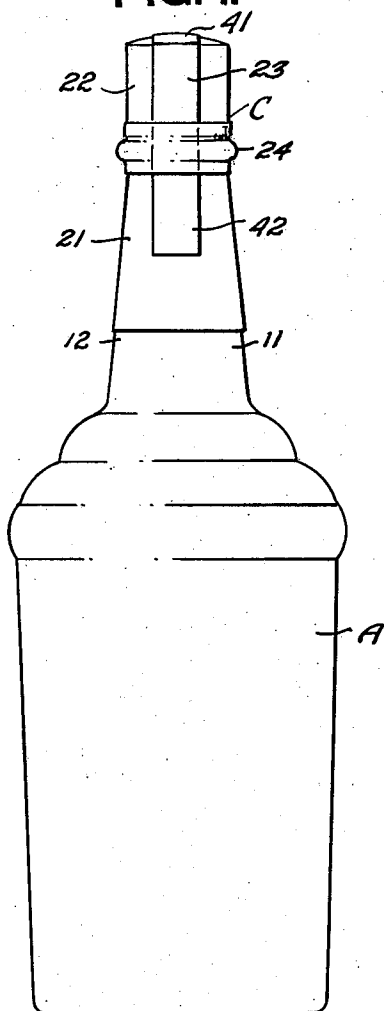


FIG. 2.

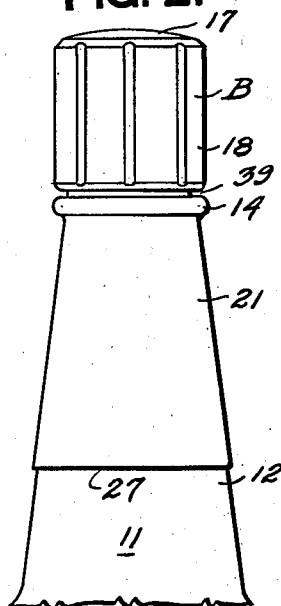


FIG. 3.

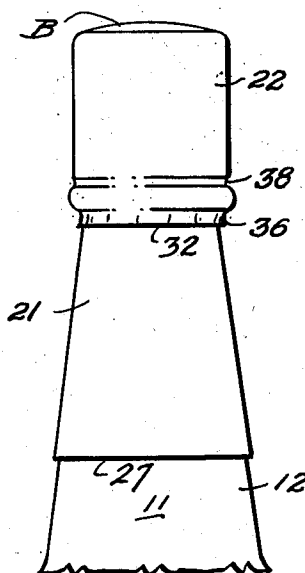
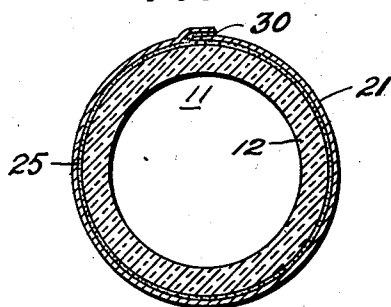


FIG. 6.



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2 Sheets-Sheet 2

FIG. 4.

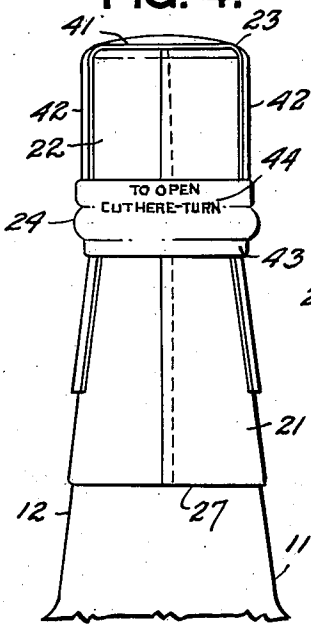


FIG. 5.

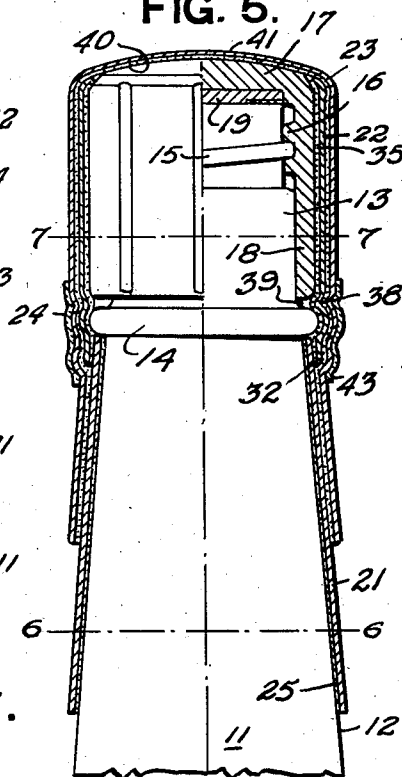


FIG. 8.

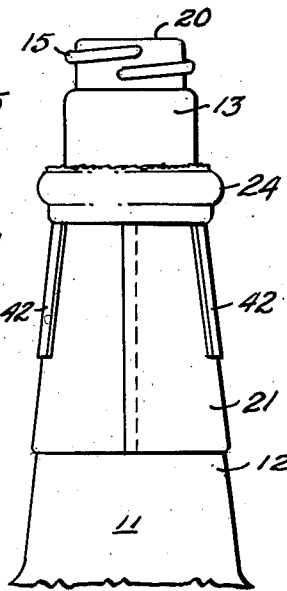


FIG. 7.

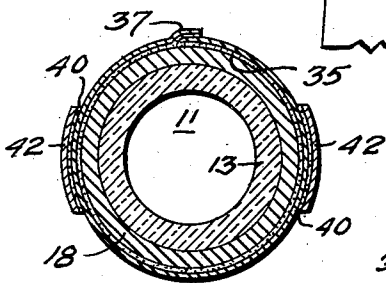


FIG. 10.

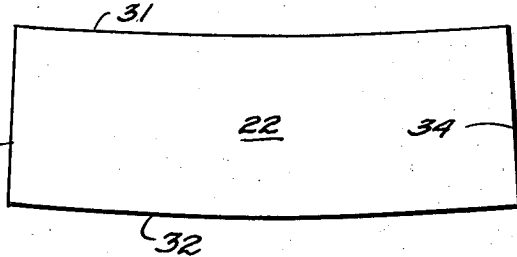
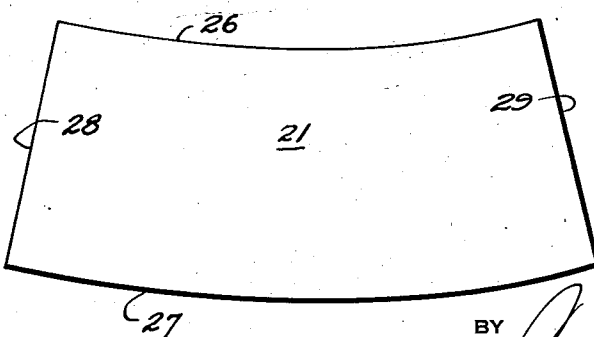


FIG. 9.



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SECONDARY CLOSURE FOR SPIRITUOUS
BEVERAGE BOTTLES

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Application May 4, 1942, Serial No. 441,751

5 Claims. (Cl. 215—38)

The present invention relates to secondary closures for spirituous beverage bottles and the principal object of the invention is to provide such a closure, as a substitute for the metallic capsule commonly used for bottled whiskies, liqueurs and other spirituous beverages, which is low in cost of manufacture, easily applied to the bottle, having a primary closure, in a manner to have good appearance and to comply with the law relative to sealing of such bottles, and which avoids contamination of the product, after the seal is broken, and it is poured from the bottle.

Another object of the invention is to provide an inexpensive secondary closure of the character described which is not likely to be damaged in the handling of the bottles equipped with such closures and especially while being removed from packing cases or in the placing of the bottles in stock or for display.

I am aware that it has been proposed to provide a substitute for the one-piece tinfoil or sheet-lead tubular cap or capsule quite commonly used in the past on champagne bottles, wherein the substitute comprises two oblong, substantially rectangular pieces of tinfoil—one acting as a neck covering and the other as a cork covering, the latter so shaped as to expose a portion of the usual cork retaining wire. However, such substitutes contemplate crushing or wrinkling the tinfoil so as to become permanently set in condition to conform rather precisely to the contour of the bottle neck, the projecting portion of the cork, and the wiring for the cork, and uses a considerable quantity of tinfoil—possibly more than is required to make the one-piece tinfoil tubular cap or capsule designed to cover substantially the same area.

I am also aware that it has been proposed to provide capsules for bottles, each capsule being made of two or more pieces of sheet-metal, perforated or cut to provide large openings for air to enter and reach the cork and wire associated therewith, but such capsules are expensive to manufacture and costly in their application to the bottles, since they use considerable sheet-metal and must be primarily formed to substantially the contour of the bottle cork and neck portion, then slipped into place and finally distorted to become permanently set in intimate contact with the bottle neck, cork and wire.

In carrying out my invention I prefer to make the secondary closure mainly of paper, preferably metallic finish paper, secured by an adhesive to the bottle neck and primary closure, and to avoid unsightly wrinkling of the paper. I prefer to make the secondary closure mainly of two paper parts having marginally overlapping circumferential portions, with a cellulose band contracted about the zone where the paper parts circumferentially overlap. This has many advantages

among which may be mentioned first, the ability to cut the paper parts to patterns which will neatly fit the contour of the neck and cap portions of the particular package for which they are intended; second, the ability to neatly print or emboss trade-marks, and other indicia on the paper while in sheet form; third, the assurance that the circumferentially overlapping portions of the paper parts when assembled on the bottle cap will not be accidentally torn or peeled off during handling of the bottle; and, fourth, the ability to select material which will not contaminate the product if poured over same.

Another object of the invention is to so locate the cellulose band and revenue stamp that when the secondary closure is cut to permit removal of the primary closure, the band will effectively retain portions of the strip revenue stamp upon the bottle. This has many advantages, among which may be mentioned the holding of the strip revenue stamp in place should the adhesive thereon fail, and also guarding against the absence of portions of the revenue stamp on the bottle at retail outlets where the law requires such to be on the bottles even tho the portion of the revenue stamp over the primary closure may have become loosened or misplaced.

Other objects and advantages of the invention will appear in the following detailed description of the preferred embodiment of the invention, taken in connection with the accompanying drawings, forming a part of this specification, and in which drawings—

Figure 1 is a side elevation of a bottle having a secondary closure made according to the present invention.

Figure 2 is an enlarged fragmentary view in side elevation of the neck portion of the bottle provided with a primary closure and a portion of the secondary closure.

Figure 3 is a view similar to Figure 2, but showing another portion of the secondary closure applied mainly to the primary closure.

Figure 4 is a view similar to Figures 2 and 3 but with the secondary closure completed and looking toward the back of the bottle neck.

Figure 5 is a further enlarged view partly in elevation and partly in central vertical section to disclose preferred details.

Figures 6 and 7 are cross sectional views on the lines 6—6 and 7—7, respectively, of Figure 5.

Figure 8 is a view similar to Figure 4 but showing the secondary closure severed and the primary closure removed.

Figure 9 is a face view showing a typical pattern of one of the secondary closure parts for the neck portion of the bottle.

Figure 10 is a view similar to Figure 9, but relating to another part of the secondary closure.

In the drawings, A designates a bottle suitable as a container for spirituous beverages; sometimes termed a "bar bottle"; B a primary closure or cap therefor and which in the example shown is of the character disclosed in application for patent on bottles and bottle closures, filed by John V. Chiles, May 1, 1939, Serial Number 271,238; and C a secondary closure made and applied according to the present invention.

In the example shown, the bottle A includes a neck 11 comprising a body portion 12, a top or mouth portion 13 and an outstanding annular bead 14 therebetween. The body portion 12 is frusto-conical in shape or, in other words, is progressively of increased diameter below the bead 14, and the mouth portion is provided with an external screw thread 15 for cooperation with an internal screw thread 16 of the primary closure B.

In addition to the thread 16, the primary closure B includes a head 17, a cylindrical skirt 18 and a liner 19. When the closure B is in place on the bottle A, the liner 19 is compressed upon the rim 20 as a result of the action of thread 16 with respect to thread 15, and the skirt 18 extends downwardly and exteriorly of the top portion 13 of the bottle neck. In practice, the skirt 18 is made as thin as possible, to conserve material. Its external diameter may be less than the diameter of bead 14, for the bead is formed in the manufacture of the bottle to hold the "finish" of the top or mouth portion of the bottle while the remainder is being blown, and this bead must be of substantial cross section to function properly.

In the example shown, the secondary closure C comprises a first band 21 of paper and constitutes the neck body band; a second band 22, also of paper, which may be generally termed the cap band, altho it preferably extends beyond the lower margin of the cap B; a strip revenue stamp 23; and a relatively narrow, preferably endless cellulose band 24. In the views, the thickness of the material is necessarily exaggerated, for in practice relatively thin paper or metallic foil may be used in the production of bands 21 and 22, and the strip stamp and band 24 are of relatively thin material.

The band 21 is patterned to be secured, as by an adhesive 25, to a portion of the tapering body 12 of neck 11 next below bead 14, as shown more particularly in Figures 2 and 5. It is arcuate in plan, as shown in Figure 9, having a concave longitudinal edge 26, a convex longitudinal edge 27 and end edges 28 and 29 in diverging relation from edge 26 to edge 27. When secured to the bottle neck, it forms a frusto-conical band about the neck and may have delineated thereon a trade-mark, or brand name, or other indicia not shown in the drawings. The material of band 21 is preferably in overlapping relation adjacent the edges 28 and 29, as shown at 30 in Figures 4, 6 and 8.

Since, in the preferred form of the invention, the band 22 is intended to give the visual appearance of the upper portion of a one-piece capsule and hence extends over the bead 14 and over a portion of the band 21, as well as over the skirt portion of cap B, this band 22 is also arcuate in shape, as shown in Figure 10, having a shallow concave longitudinal edge 31, a convex longitudinal edge 32, and end edges 33 and 34 in diverging relation from edge 31 toward edge 32. This band 22 is secured by adhesive 35 to cap B, bead 14 and in overlapping relation to the upper portion of band 21, as shown at 36, more particularly in Figures 3 and 5. The material of band 22 is preferably in overlapping relation adjacent the

edges 33 and 34, as shown at 37 in Figure 7. By making the band 22 arcuate in shape, even though the skirt 18 of cap B may be of substantially uniform external diameter throughout its height, the band may be shaped neatly to the contour of the bead 14 of greater diameter than the cap skirt.

In practice, the adhesives or gums 25 and 35 may be in dry form on the bands 21 and 22 as supplied by the manufacturer, and moistened just prior to application to the bottle, or the bands may be supplied without gum and the adhesive brushed or otherwise applied to the designated surfaces of the bottle and cap, or to the bands, just prior to application of the bands to the bottle. I have also found that in practice the bands may be made to adhere intimately to the contours of the bottle and cap by subjecting them to hydraulic pressure in a crimping machine or by pressure applied thru rubber pads forced together around the neck and cap. It is particularly desirable to crease the band 22 at the zone 38 where there is a space 39 between the lower margin of cap B and bead 14, to facilitate severing the secondary closure at the zone when it is desired to open the bottle.

The strip stamp 23 is secured as by adhesive 40 to the cap B and bands 21 and 22 with an intermediate portion 41 of the stamp extending over the head 17 of the cap and end portions 42 at diametrically opposite portions of the bands 21 and 22.

The annular band 24 is preferably of endless type and initially of a size to be easily slipped in place overlying sections of the end portions 42 of the stamp 23 and preferably surrounding the bands 21 and 22 at the zone where the band 22 overlies band 21, as well as at the zone 38. This band is of cellulose material having the inherent characteristic of contracting or shrinking when moistened and permitted to dry. When thus contracting, it aids in shaping the bands 21 and 22 and the portions of stamp 23 to the contours of the bottle and cap. It is particularly desirable that the lower marginal portion 43 overlie the band 21 below the edge 32 of band 22, so that in carelessly handling the bottle, and especially when lifting or lowering the same by grasping the bottle neck below the bead 14, the lower edge portion of band 22 will not become torn or peeled off and rendered unsightly.

While the band 22 may carry a trade-mark or other indicia not shown in the drawings, and this may be accomplished by embossing or perforating the band, it is important that the band be imperforate at least at its portion overlying the space 39 between bead 14 and the circumferential face of the skirt 18 of the primary closure, otherwise the cellulose band 24, when contracting, is apt to break the band 22 circumferentially at zone 38 and give the appearance of a package that has been opened.

The band 24 is preferably made of transparent material so the color bands 21 and 22 will show thru same and give the visual effect of a one-piece capsule. The band 24 may have indicia 44 delineated thereon, at or adjacent the zone 38, to indicate where the secondary closure may be cut to facilitate opening of the package.

The band 22 may be primarily forced to extend into the space 39 shown in Fig. 2, by the crimping machine thus causing the crease shown in Fig. 3 at zone 38 to appear at the time the band is pasted to the primary closure B and the bead 14. However, when the cellulose band 22 is applied and contracts or shrinks it may further

force the band 22 into the space 39 creating a well defined crease at zone 38 as shown in Figs. 1, 4 and 5, to indicate where the secondary closure should be cut to facilitate opening of the package.

It is pointed out that the most vulnerable zone of the secondary closure, when the bottle is being handled, is where the bands 21 and 22 are in overlapping relation. It is there that the band material is most likely to be creased to conform with the contour of the bottle. Also, if the outer surface of the material from which the bands are made does not adhere readily to gum or other adhesive, that is the zone where the material is most likely to be torn or peeled off in handling. I have discovered that, by the use of the contractible cellulose band, the likelihood of damage to the secondary closure at that zone is reduced to a minimum. The cellulose band not only causes any creases of the band 22 to be inconspicuous, but also in effect compresses the material from which the bands 21 and 22 are made, and in a manner embeds itself in the material at the vulnerable zone.

When the secondary closure is severed at the zone 38 of band 22, the cap B may be removed and portions of the revenue stamp 23 are held to the bottle neck by band 24, as shown in Figure 8. Any material of the secondary closure remaining on the bottle is remote from the mouth, where it cannot contaminate the contents of the bottle while being poured out.

While I have shown the secondary closure as applied to a bottle and cap having the characteristics shown in the aforementioned Chiles application, Serial Number 271,238, it is to be understood that such is merely by way of example. The invention may be applied to bottles and caps, the external contours of which are suitable for the reception of the one-piece capsules previously made of tinfoil or sheet-lead, but which are expensive to manufacture and apply, difficult, if not impossible at times to obtain, and likely to contaminate the contents of the bottle when being poured therefrom.

I claim:

1. In combination with a bottle having a neck including a body portion, and an annular bead, and a primary closure for said neck including a part providing a circumferential face laterally of the bottle and spaced slightly above said bead; a secondary closure comprising a relatively wide paper band secured by an adhesive to and circumferentially of said face of the primary closure and to said bead, said paper band being imperforate at least at its portion overlying the space between said bead and said circumferential face of the primary closure, and a relatively narrow cellulose band contracted about said paper band circumferentially thereof at the zone overlying the said space between the primary closure and bead and producing an inwardly extending crease at said zone.

2. In combination with a bottle having a neck and a primary closure therefor including a portion extending downwardly and exteriorly of the top of the neck; a secondary closure comprising a first band secured to the bottle neck circumferentially thereof, with its upper margin terminating short of the lower margin of said por-

tion of the primary closure, a second band secured to and extending circumferentially of the said portion of the primary closure and in overlapping relation to the upper portion of said first band, a stamp, secured to said secondary closure, with its intermediate portion extending over said primary closure and its end portions therefrom extending downwardly over both said first and second bands, and a cellulose band contracted about said end portions of said stamp and said first and second bands, and of a depth to extend about at least a portion of the zone where said first and second bands overlap and about a portion of said first band below said zone.

3. In combination with a bottle having a neck and a removable primary closure therefor including a cylindrical skirt portion extending downwardly from the mouth of the bottle and in exteriorly encircling relation to the bottle neck; a secondary closure comprising, a first band secured to the bottle neck wholly below said skirt portion, a second band encircling said skirt portion of the primary closure and extending downwardly therefrom in overlying relation to the upper portion of said first band, and an adhesive securing said second band to said skirt portion throughout its circumference and to the upper portion of said first band, whereby the second band may be severed circumferentially at the lower portion of said skirt and its upper portion remain secured to said skirt of the primary closure.

4. In combination with a bottle having a neck and removable primary closure therefor including a cylindrical skirt portion extending downwardly from the mouth of the bottle and in exteriorly encircling relation to the bottle neck; a secondary closure comprising a band encircling said skirt portion and extending downwardly therefrom in overlying relation to the neck portion of the bottle below said skirt portion, an adhesive securing said band to said skirt portion throughout its circumference, and a narrow cellulose annular band contracted about said first mentioned band at its portion overlying the lower portion of said skirt and its portion therebelow overlying the neck of the bottle and holding said portions of the first mentioned band in intimate contact with the skirt portion and the bottle neck.

5. In combination with a bottle having a neck and a removable primary closure therefor including a cylindrical skirt portion extending downwardly from the mouth of the bottle and in exteriorly encircling relation to the bottle neck; a secondary closure comprising a first band patterned to encircle in wrinkle-free engagement the neck of the bottle below said skirt portion, an adhesive for securing said first band to the bottle neck, a second band patterned to encircle in wrinkle-free engagement the said skirt portion of the primary closure and extending downwardly therefrom in overlapping relation to the upper portion of said first band, an adhesive securing said second band to said skirt of the primary closure, and a narrow cellulose annular band contracted about said first and second bands at, at least, the zone where they are in overlapping relation.

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