May 12, 1936. D. D. HULL 2,040,381

TELLTALE BOTTLE

Filed Jan. 19, 1935

Fig. 1

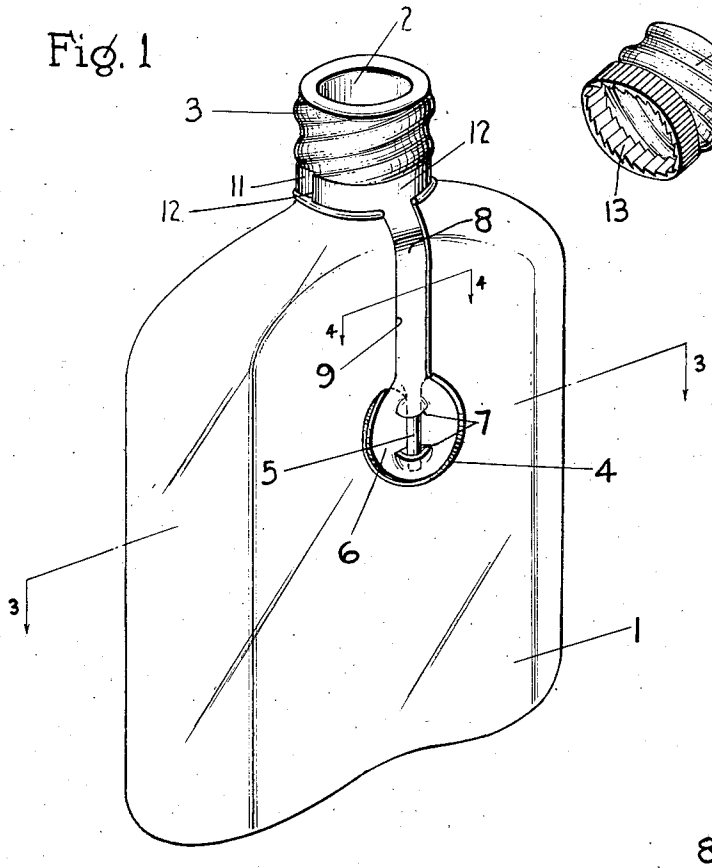


Fig. 2

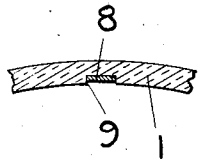


Fig. 4

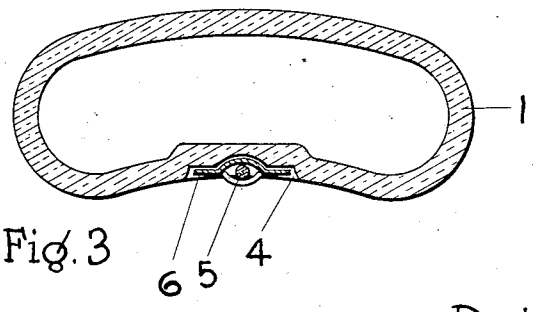


Fig. 3

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TELLTALE BOTTLE

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Application January 19, 1935, Serial No. 2,552

8 Claims. (Cl. 215—7)

My invention relates to containers, for example liquor bottles, and has for its principal object the provision of a bottle wherein are incorporated means which will permit the bottle to be opened only by the breaking of a frangible element conspicuously located, whereby if an attempt is made thereafter to refill the bottle, the purchaser to whom such a refilled bottle is offered will know by reason of the fracture of the frangible element that the bottle does not contain the original contents.

It is a further object to provide such a device which is simple, readily protected against fraud, yet inexpensive and capable of being incorporated in the completed package and put in operative condition with little necessity for thought or care on the part of the operator filling and closing the bottle, and preferably by the natural action of closing the bottle.

My invention comprises the novel closure, cap and tell-tale means, and the novel combination thereof, as shown in the accompanying drawing, described in the specification, and as will be more particularly pointed out by the claims which terminate the same.

In the accompanying drawing I have shown my invention incorporated in a form which at present is preferred by me, it being obvious that the principles of the invention may be incorporated in various ways and in various types of containers, and provided with various types of closure means.

Figure 1 is a perspective view of the bottle, typical of any closure, with the tell-tale device in operative position thereon.

Figure 2 is a perspective view of the closure cap.

Figure 3 is a transverse sectional view substantially on the line 3—3 of Figure 1, and Figure 4 is a detail sectional view on the line 4—4 of Figure 1.

The bottle 1 represents any convenient type of container. Preferably it is made of a substance like glass, although, as will appear hereafter, it may be formed of other material. It is provided with the outlet 2. In the form shown the outlet is formed in a screw threaded neck 3. Somewhat distant from the cap 10, preferably in one of the sides of the bottle, is formed a depression 4, within which is positioned a frangible element represented by the finger 5, which is thus protected against accidental breakage.

Preferably this frangible finger 5 is integral with the material of which the container is made, and if the container is of glass the finger 5, being small, is readily breakable. If, however, the container is made of nonbreakable material, or material which will not readily break, the frangible element may be provided with a fracture line, or in some equivalent way made readily separable from the container, yet such a fracture line may be located beneath the tab 6, which will be described later, so that it is not readily accessible, and the only way of disengaging the tab is by breaking off the element 5 from the container.

The tab 6 is preferably of metal. It is slit at least once, two slits 7 being shown, whereby it may be slipped onto the finger 5 by upward movement, and when thus engaged will lie within the depression 4. Extending upward from and preferably formed integrally with the tab 6 is a ribbon 8, and to prevent tampering with this ribbon, and possibly breaking it to permit the bottle to be opened and then substituting a new ribbon, the ribbon should be snugly received within a groove 9 extending from the depression 4 upwardly to the neck of the bottle, and to a point to which the closure will reach. The ribbon, by means which will be described hereafter, is drawn taut in the action of securing in place the threaded closure cap 10. Therefore if the ribbon is tampered with, this too will be conspicuously evident, as the glass along the margin of the groove 9 will probably be chipped.

The ribbon is of such length that when the tab is engaged with the finger 5 the ribbon extends from the neck of the bottle below the screw threads. While it may extend in one direction, it is shown as formed in a yoke, the ends 11 and 12 of which extend about opposite sides of the neck, the better to insure that it will remain in place and cannot readily be tampered with. At at least one point it is formed with a ratchet tooth 12 or equivalent means to engage with circumferentially disposed axial corrugations 13 formed in the skirt of the closure cap 10.

With the tab and ribbon in place as seen in Figure 1, the closure cap 10 may be threaded upon the neck 3, and as it threads on, the corrugations 13 engage and pass over the ratchet tooth 12, but the friction between the two serves to draw the ribbon 8 taut, and to pull it down to the bottom of the groove 9. When the cap has been finally threaded home the ends 11 and 12 are substantially entirely beneath the skirt of the cap, where they cannot be reached. Now if an attempt is made to unscrew the cap, the tooth 12, reacting against the neck, engages the corrugations 13 and prevents such reverse movement of the cap. The ribbon 8 cannot be reached and broken without tell-tale marks being left on the bottle, and

the bottle can only be opened by pressing on and breaking the frangible finger **5**, after which the tab **6** can be lifted to raise the ribbon **8** from its groove, whereupon there is no resistance to threading off movement of the closure cap, the ribbon rotating with the cap until finally the cap is removed and the ribbon can be disengaged from the cap, but now the frangible finger **5** has been broken off and cannot be replaced. Accordingly if the consumer is offered a bottle which has no frangible element, he may well believe that the bottle has once been used, the original contents removed, and a substitute product replaced in it, so that the consumer will refuse a bottle unless the frangible element is intact.

What I claim as my invention is:

1. In combination, a container having an outlet, a closure securable upon said outlet by movement relative thereto in a definite path, a frangible element formed on the container, a tab engageable with said frangible element, and terminating in a ribbon of a length, with the tab so engaged, to extend about the outlet, a ratchet member formed on said ribbon, over which the closure moves, as the latter moves towards secured position, and cooperating ratchet means on the closure, engageable by the ratchet member on the ribbon upon reverse movement of the closure, to prevent such movement except as the frangible element is broken.

2. In combination, a container having an outlet, a closure securable upon said outlet by rotational movement relative thereto in one direction, a frangible element projecting from the container, and away from the outlet, a tab engageable with said frangible element only by movement towards the outlet, and terminating in a ribbon of a length, with the tab so engaged, to extend about the outlet, a ratchet member formed on ribbon, and cooperating ratchet means on the closure permitting securing movement of the latter, but engageable by the ratchet member on the ribbon to prevent reverse rotation of the closure, except as the frangible element is broken.

3. In combination, a container having a threaded neck, a closure threaded thereon, a frangible finger integral with and projecting from the container and away from the neck, a tab engageable with said finger only by movement towards the neck, a ribbon integral with the tab and of a length, with the tab so engaged, to extend about the neck, a ratchet member formed on the latter portion of the ribbon, and cooperating ratchet means on the closure, the two ratchet devices being formed to permit relative threading-on rotation of the closure, but to prevent relative threading-off movement of the latter.

4. The combination of claim 3, wherein the closure is formed with a depression, and the frangible finger is disposed within such depression, beneath the general level of the rim of the latter.

5. The combination of claim 3, wherein the closure is formed with a groove disposed to receive the ribbon, the latter being stretched taut at the bottom of such groove by the threading-on action.

6. The combination of claim 3, wherein the closure is formed with a depression, and the frangible finger is disposed within such depression, beneath the general level of the rim of the latter, and the closure is further formed with a groove extending from said depression to the neck, of a width and so disposed as to snugly receive the ribbon.

7. The combination of claim 3, wherein the ribbon, at the neck end, is formed as a yoke to embrace both sides of the closure's neck.

8. In combination with a bottle of glass or like material, having a threaded neck and a surface depression therebelow, a screw cap receivable on said neck and circumferentially corrugated in an axial direction, an integral downwardly projecting frangible finger formed in said depression, a transversely slit metal tab adapted to engage said finger within the slit by upward movement, an integral ribbon extending upward from said tab to extend about the neck, a ratchet tooth formed on said ribbon, and positioned to be engaged by the corrugations of the cap, as the latter is threaded on the neck, thus to pull the ribbon taut, and engaging the cap upon attempted reverse movement of the latter, to prevent such reverse movement.

DWIGHT D. HULL.