Nov. 12, 1935. O. K. NUTTER 2,021,084

BOTTLE SEAL

Filed Dec. 20, 1934

FIG. 1.

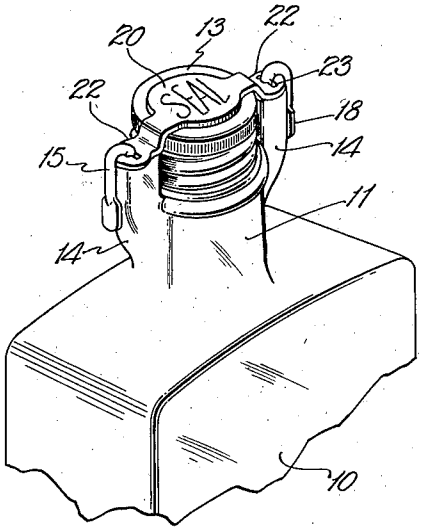


FIG. 2.

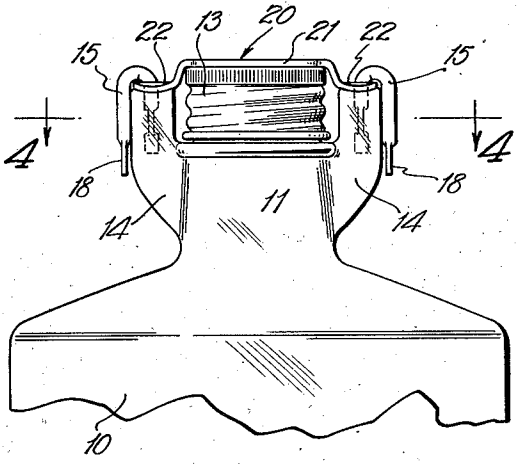


FIG. 4.

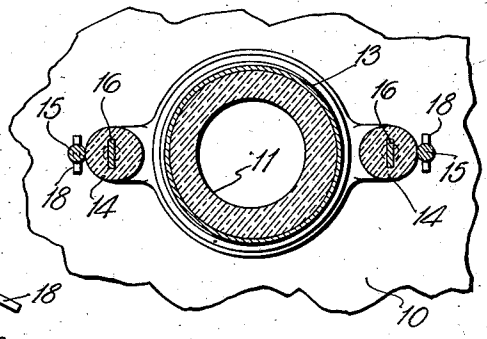


FIG. 3.

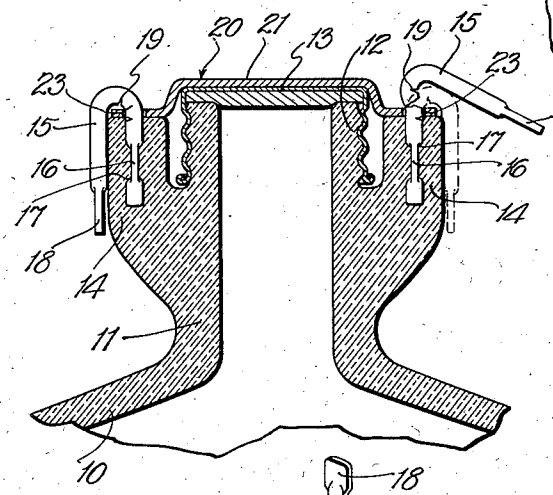


FIG. 5.

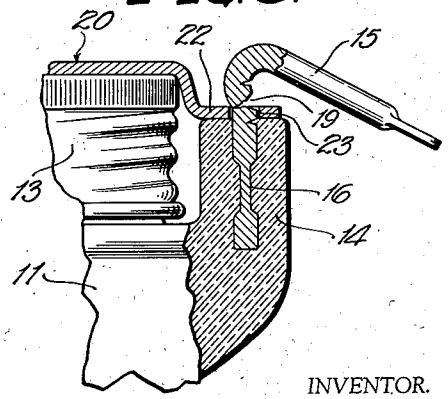
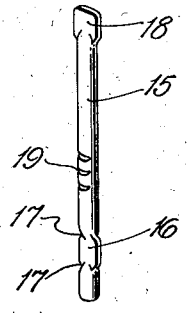


FIG. 6.



WITNESS:

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BOTTLE SEAL

Okey K. Nutter, New York, N. Y.

Application December 20, 1934, Serial No. 758,421

2 Claims. (Cl. 215—7)

This invention relates to improvements in bottle seals.

One of the main objects of the invention resides in a means for sealing the cap or closure of a bottle to prevent fraudulent reuse of the bottle without detection should an endeavor be made by an unscrupulous person to imitate the merchandise of the original users of the bottle. Such type of seal will be found most useful to the bottlers of spirituous liquors employing distinctive shape bottles for their goods to avoid the practice of refilling the bottles with inferior goods and passing the same off to the public as the original product.

Another feature of the invention is the provision of a seal which overlies the closure of a bottle, the same being held down by a pair of posts which have one of their ends embedded in the glass from which the bottle is constructed, while the free ends are bent to an out of the way position, the material from which the posts are constructed being of a flexible but brittle material weakened at the bend, whereby rebending of the posts to remove the seal will result in the breaking off of the outer ends of the posts, leaving the inner ends of the posts embedded, whereby attempted reuse of the bottle may be detected.

Another feature of the invention is the provision of a bottle seal which is simple of construction, inexpensive of manufacture, and which may be broken without the aid of an instrument or without likelihood of breaking of the bottle.

With these and other objects in view, the invention resides in the certain novel construction, combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawing, in which:

Figure 1 is a fragmentary perspective view of a bottle with my improved seal in sealing position thereon.

Figure 2 is a side elevational view thereof.

Figure 3 is an enlarged detail vertical sectional view showing one of the bendable posts bent outwardly for breaking the seal.

Figure 4 is a horizontal sectional view on the line 4—4 of Figure 2.

Figure 5 is a detail vertical sectional view illustrating the manner in which the posts break upon rebending.

Figure 6 is a detail perspective view of one of the posts per se.

Referring to the drawing by reference characters, the numeral 10 designates a bottle having a neck 11, the said neck terminating in a threaded portion 12 for threadedly receiving a screw type closure cap 13. The neck 11 is formed with two diametrically opposed upstanding bosses 14—14, the inner walls of the bosses being disposed in spaced relation with respect to the threaded portion 12 of the neck while the flat top faces of the bosses terminate on a plane slightly below the top edge of the neck as best seen in Figure 3 of the drawing.

Embedded in the bosses 14—14 at the time that the glass bottle is formed, are bendable posts 15. The posts 15 are constructed identically, and a description of one will suffice for the other. Each post is constructed of a short length of stiff brittle bendable wire, the inherent qualities of which will permit bending in one direction without breaking, but an attempt to rebend the wire will result in the breaking of the same at the bend. I do not wish to limit myself to the exact material from which these posts may be constructed, but brittle iron wire constitutes a good example. The inner end of each post 15 is provided with a flattened portion 16 which serves as an anchor to prevent turning of the post when in position and which flattening forms shoulders 17 which prevent relative up and down movement of the posts when in embedded position within the boss 14. The outer free end of each post is flattened to provide a finger piece 18 by which the posts may be grasped during the bending operation. The post 15 intermediate its ends and adjacent its points of bend is provided with cut out notches 19, which notches provide weakened portions and also permits of the initial bending adjacent the notches without necessitating a displacement of the material at the point of bend.

As before mentioned, the posts 15 have their inner ends embedded in the bosses 14 during the forming of the bottle, and they are so positioned that the notches 19 face outwardly to enable the free ends of the posts to be bent downwardly against the outer side of the bosses 14.

After a bottle has been filled with its intended contents, the screw cap 13 is threaded to the threaded portion 12 of the bottle neck, after which a seal bridge member 20 is fitted over the top of the cap and down onto the posts 15. The seal member 20 includes a disk-like body 21 having diametrically opposed extending ears 22, the ears being offset below the plane of the flat body portion 21 to enable the under sides of the ears to fit upon the top of the bosses 14. The ears 22 are provided with double key hole shaped slots 23 to facilitate the insertion of the flat ends

18 of the posts and to accommodate the rounded portions of the posts when the seal member is in sealing position. After the seal member has thus been applied, the flat ends 18 are grasped and the posts bent into substantially U-shape as shown in Figure 3, whereupon the free ends of the posts lie parallel to and flat against the outer sides of the bosses 14. By reference to Figure 3, it will be noted that the notches 19 which provide the weakened portions are disposed at the point of bend whereby upon rebending of the free ends of the posts to facilitate the removal of the seal member 20, will result in the posts becoming broken, due to the weakened portions and the inherent brittle characteristics of the material from which the posts are constructed. Thus it will be seen that after the posts 15 have become broken and the seal member 20 removed, that the inner ends of the posts remain embedded within the bosses 14. Any attempt on the part of the unscrupulous to reuse the bottle is frustrated as such use could readily be detected by reason of the remaining broken portions of the posts.

By positioning the tops of the bosses below the plane of the top of the bottle neck, and offsetting the ears 22 of the seal member, I eliminate any upstanding obstructions which might interfere with the packaging and handling of the sealed bottles as the bends formed in the posts are disposed on a plane even with or below the top of the seal member 20. Furthermore, I wish it to be understood that this type of seal may be used in conjunction with other types of closures or cork stoppers if desired.

While I have shown and described what I consider to be the most practical embodiment of my invention, I wish it to be understood that such changes as come within the scope of the appended claims may be resorted to if desired.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In combination, a bottle having a closure member, a pair of opposed seats provided on said bottle adjacent the mouth thereof and below the plane of said mouth, posts rising upwardly from said seats, a seal member provided with opposed downwardly offset ears, said ears having openings therein for the passage of said posts to enable said seal member to extend across the top of said closure member, the free ends of said posts being bent down to secure said seal member in position, and weakened portions on said posts adjacent the bend therein to effect breaking of the posts upon rebending thereof.

2. In combination, a bottle having a closure member, a pair of opposed seats provided on said bottle adjacent to and spaced from the mouth thereof, bendable posts rising upwardly from said seat, a seal member provided with opposed ears, said ears having openings therein for the passage of said posts to enable said seal member to extend across the top of said closure member, the free end of said posts being bent down to secure said seal member in position, and weakened portions on said posts adjacent the bend therein to effect breaking of the posts upon rebending thereof.

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