

Nov. 20, 1928.

J. C. MILES

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BOTTLE CAP

Filed June 27, 1927

Fig-1

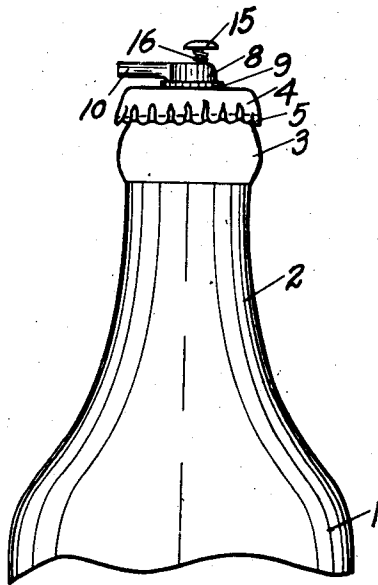


Fig-2

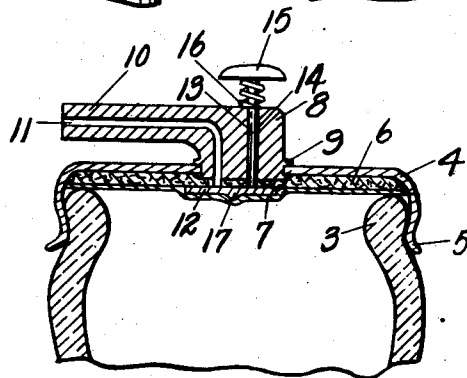
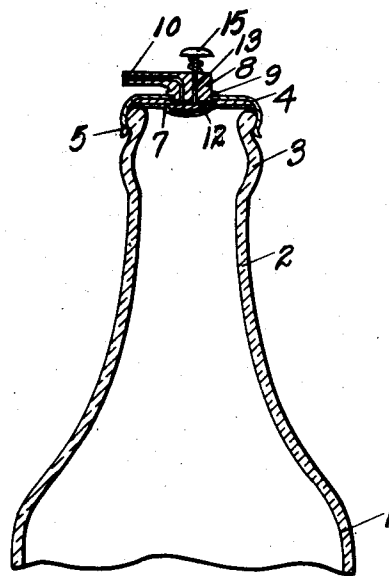


Fig-3

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UNITED STATES PATENT OFFICE.

JOHN C. MILES, OF BONNERS FERRY, IDAHO.

BOTTLE CAP.

Application filed June 27, 1927. Serial No. 201,586.

My present invention relates to an improved bottle cap of the valve type, designed for use on bottles containing seltzer, beer, phosphates, and other effervescent liquid beverage.

The primary object of the invention is the provision of an inexpensive device of this character that may readily be applied to the mouth of a bottle and used as a closure, (as well as a dispenser) to retain the pressure within the bottle, or retain the effervescent qualities of the liquid beverage or contents of the bottle, after the latter has initially been opened and a portion, or portions of the contents have been withdrawn from the bottle.

The invention consists in a valved-head forming part of the bottle-cap, together with elements associated therewith as will hereinafter be more fully pointed out and claimed.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the parts are combined and arranged according to the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a view showing the top portion of a bottle with the cap of my invention applied thereto.

Figure 2 is a sectional view of the parts shown in Figure 1.

Figure 3 is an enlarged detail sectional view of the valved-head and cap.

In order that the general relation and arrangement of parts may readily be understood I have illustrated a well known type of bottle as 1 having the neck 2 and bead or annular mouth-flange 3. The metal cap 4 is of well known form and is fashioned with the crimped edge 5 that fits over the bead of the bottle to securely hold the cap in place.

Within the metal cap is retained a cork disk 6 and a layer or film of tin foil, as 7 is used within the cap for sanitary purposes and to insure an air and liquid tight joint at the mouth of the bottle.

In the central opening of the cap is riveted

an exterior head 8, which is fashioned with an annular flange 9 surrounding the opening of the head and this head is secured to the cap with an air and liquid tight joint also.

A pouring spout or nozzle 10 extends laterally from the head 8 and is provided with a passage 11 through which the contents of the bottle may be discharged when this passage is free of obstruction. Under normal conditions, however, this passage is closed against exit of the liquid contents of the bottle by means of the circular metallic disk 12 that forms a valve or closure for the inner end of the passage.

The valve is fashioned with a perpendicular stem 13 that is reciprocable in the bore or opening 14 of the head 8, and a pushhead or knob 15 is provided on the end of the stem exterior of the head.

A spring 16 is coiled about the stem and interposed between the head 8 and the knob or button 15 for normally holding the valve in closed position with relation to the passage 11.

As best seen in Figure 3, at the underside of the valve, the latter is provided with a spur or sharpened lug 17 that is adapted to penetrate the tin foil which encloses the valve, and initiate the tearing or breaking of the foil that must occur the first time the valve is opened. Thus at the initial opening of the bottle, as the thumb or finger presses on the button or knob 15, the valve is pushed from its seat to open communication between the interior of the bottle and the passage 11 of the discharge spout 10. The valve is of sufficient size as to tear away a considerable portion of the tin foil, or sealing layer, in order that the liquid contents of the bottle may have access to the open passage, and the spur 17 insures a proper tearing or breaking of the layer.

As long as the valve is held open the effervescent liquid is discharged from the spout, but when the valve is released the spring 16 automatically closes the valve to prevent further exit of either the liquid or gaseous contents of the bottle.

In this manner the effervescent qualities

of the contents of the bottle may be maintained until the entire contents of the bottle have been discharged.

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

The combination with a bottle cap having a rigid head and discharge nozzle, of a cork

layer within the cap, a valve closing said discharge nozzle and a spring pressed operating stem for the valve, a projecting lug on said valve, and a sealing layer of tin foil covering said valve and cork layer.

In testimony whereof I affix my signature.

JOHN C. MILES.