Feb. 21, 1928. 1,659,679

J. S. BLINN

BOTTLE STOPPER

Filed Dec. 2, 1924

Fig. 1.

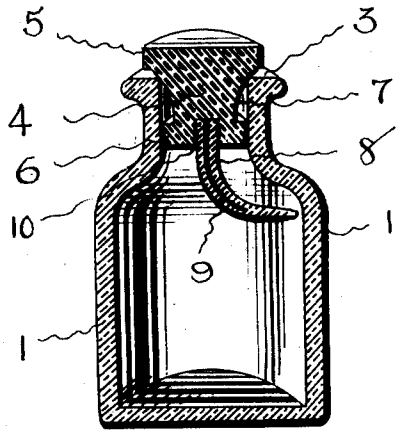


Fig. 2.

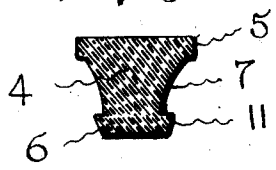


Fig. 3.

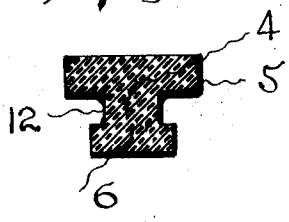
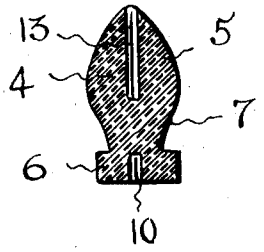


Fig. 4.



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JOSEPH S. BLINN, OF NEW HAVEN, CONNECTICUT.

BOTTLE STOPPER.

Application filed December 2, 1924. Serial No. 753,424.

The present invention relates to stoppers or closure devices for bottles and the like and amongst other things, the object of the invention is to produce a simple and efficient stopper which may be produced at a comparatively low cost. The invention further provides, in conjunction with the improved stopper, a depending stem attached to the stopper which serves as an applicator useful for applying the contents of the bottle in a small quantity.

The improved stopper is preferably composed of soft rubber or other elastic material which may be compressed and then expanded to fit tightly into the neck of a bottle for example and the stopper is constructed so that it may be readily drawn from or inserted into the neck of the bottle.

Several embodiments of the invention will be more fully described hereinafter with reference to the accompanying drawing, wherein:

Figure 1 is a vertical sectional view of a bottle having the improved stopper and applicator in the position for operation;

Figure 2 is a sectional view illustrating a modified form of the stopper;

Figure 3 is a sectional view illustrating another modification, and

Figure 4 is a sectional view illustrating still another modification.

In the drawings, 1 represents a bottle having the neck 2 and the flange 3. 4 is the improved stopper having the flanged crown 5 and the lower flange 6, with an intermediate restricted portion 7 therebetween.

When an applicator is required in conjunction with the stopper curved stem 8 having a stiffening wire 9 embodied therein, depends from the stopper and is so arranged and constructed that the contents of the bottle, to the very last drop, may be taken therefrom. The stem 8 can be molded as an integral part of the stopper proper but the preferable way is to make the stem a separate member fitted into the recess 10 and cemented or otherwise secured therein.

Referring to Figure 2 herein substantially the same construction is shown as in Figure 1 with the exception that the recess 10 is omitted, and the lower flange 6 is beveled at 11. In Figure 3, the modified form as illustrated has straight vertical sides including the restricted portion which in this case is formed by the groove 12. In Figure 4 the crown 5 is modified so as to form an extended upwardly projecting member which may be more readily grasped by the fingers of the operator, and to facilitate compression of this crown, the same is provided with the central bore 13.

In the operation of the improved device, the upper and lower flanges or portions of the stopper fit tightly into the neck of the bottle. The sides of the intermediate restricted portion do not come into contact with the walls of the neck of the bottle, and through this restricted portion of the closure device not engaging the walls of the neck of the bottle, a gap is formed between the contacting surfaces and thus a perfect sealing closure is obtained with the elimination of friction so that the stopper may be inserted or withdrawn with comparative ease.

Various modifications in the construction of the device and in the application thereof may be made without departing from the spirit of this invention and it is to be understood that any modification coming fairly within the terms of the appended claim shall be covered thereby.

I claim:

A stopper for bottles or the like consisting of a body having a surface adapted to intimately contact with the inner wall of the neck of the bottle and a circumferential groove formed completely around said body whereby said contacting surface is broken so as to create a gap therein, substantially as and for the purpose set forth.

Signed at New Haven, county of New Haven, State of Connecticut, this 29th day of November, 1924.

JOSEPH S. BLINN.