Aug. 8, 1939 E. C. FINK 2,168,822

CLOSURE FOR COLLAPSIBLE TUBES

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Fig. 1.

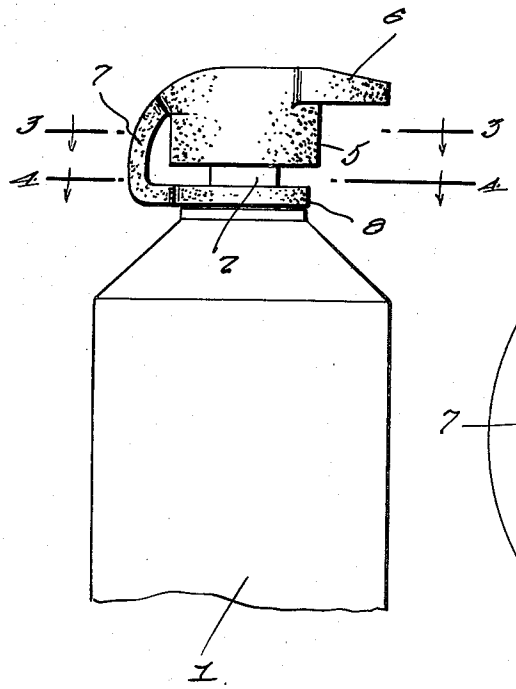


Fig. 4.

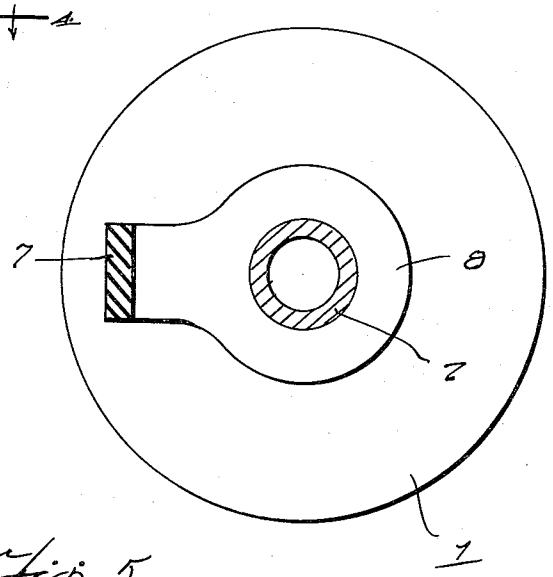
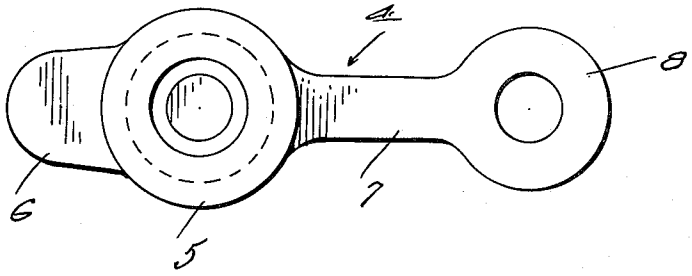


Fig. 5.



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Fig. 2.

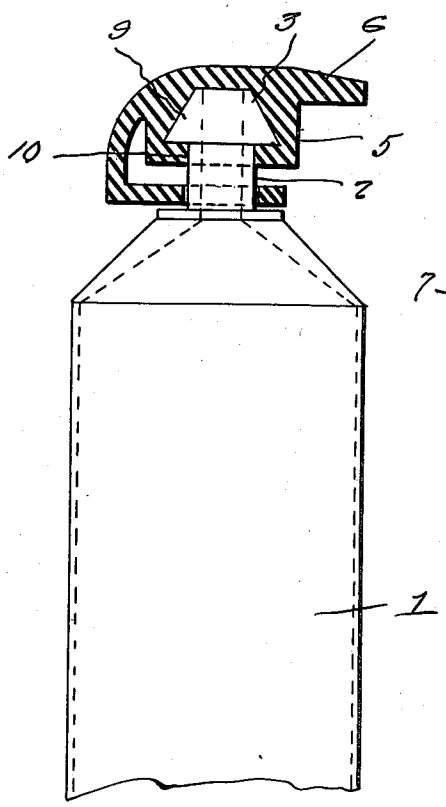


Fig. 3.

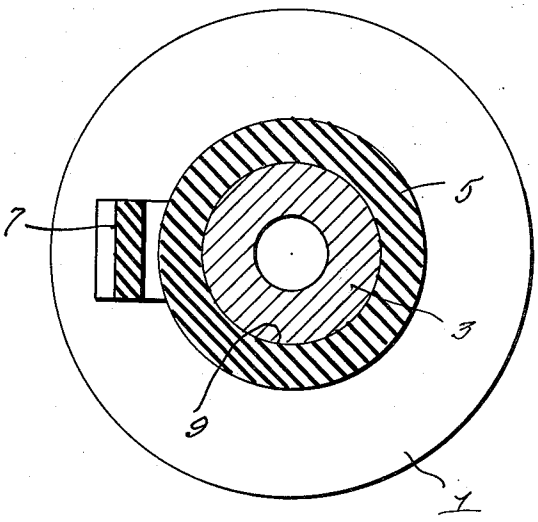
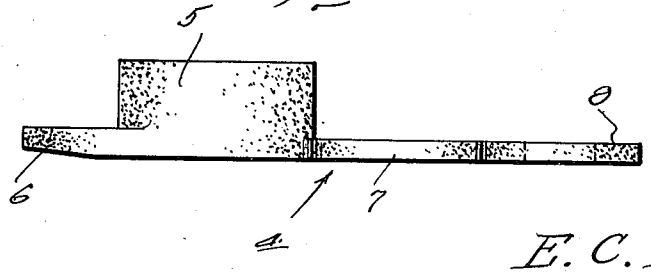


Fig. 6.



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UNITED STATES PATENT OFFICE

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CLOSURE FOR COLLAPSIBLE TUBES

Elmer C. Fink, Chadwick, Ill.

Application November 3, 1938, Serial No. 238,679

1 Claim. (Cl. 221—60)

My invention relates to improvements in closures for collapsible tubes such as are used for toothpaste, shaving cream, and the like.

My invention is designed with the particular purpose in view of providing an inexpensive closure for hermetically sealing such tubes and which is adapted for attachment to different tubes at will to become a permanent part of the tube until the latter is empty.

To the accomplishment of the foregoing, and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawings, set forth in detail in the succeeding description, and defined in the claim appended hereto.

In said drawings:

Figure 1 is a fragmentary view in side elevation of a collapsible tube equipped with a preferred embodiment of my improved closure.

Figure 2 is a view partly in side elevation and partly in transverse section.

Figure 3 is a view in section taken on the line 3—3 of Figure 1 looking in the direction indicated by the arrows and drawn to an enlarged scale.

Figure 4 is a similar view taken on the line 4—4 of Figure 1 looking in the direction indicated by the arrows,

Figure 5 is a view in bottom plan of the closure member, and

Figure 6 is a view in edge elevation of said member.

Referring to the drawings by numerals, according to my invention, the tube 1, which is of the usual collapsible type, is equipped with a reduced neck 2 terminating in an enlarged frusto conical nozzle 3. A closure member for the nozzle 3 is provided in the form of a flap 4 of moulded rubber having adjacent one end thereof an enlarged annular cap part 5, a diametrical cap manipulating tab 6 extending from said cap part, and a tail piece 7 extending from said cap part diametrically opposite the tab 6 and terminating in an enlarged eyelet-like end 8. The end 8 is of the requisite inside diameter to fit snugly around the neck 2 and the tail piece 7 is of a length such that in the described position of the end 8 said piece may be bent upon itself for placement of the cap part 5 over the nozzle 3. The cap part 5 has a socket in the center thereof, designated 9, of the same shape as the nozzle 3, but slightly smaller, and a reduced mouth opening 10 leading from said socket 9 to one side of said part and slightly smaller in diameter than that of the neck 2.

The manner in which the described closure is operated will be understood from the foregoing. Suffice it to explain that the end 8 is stretched over the nozzle 3 and forced down upon the neck 2 whereby the closure is permanently attached to the tube 1, against loss, but may be transferred to another similar tube when desired. When it is desired to close the nozzle 3, the tab 6 is grasped and the cap part 5 forced down over said nozzle 3, the tail piece bending as will be understood to permit such placement of said cap part. In the applied position of cap part 5 the socket 9 hugs the nozzle 3 and the edges of the mouth 10 the neck 2 thereby hermetically sealing said nozzle. When it is desired to open the nozzle 3, the tab 6 may be grasped and the cap part 5 pulled off the nozzle 3 and from under the same whereupon the tail piece 7 will react to throw said cap part to one side in an out-of-the-way position.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly the invention as described is susceptible of modification without departing from the inventive concept and right is herein reserved to such modifications as fall within the scope of the subjoined claim.

What I claim is:

The combination with a collapsible tube body, of a reduced neck on said body, an enlarged frusto conical nozzle on the outer end of said neck, and a closure member for said nozzle comprising a strip of resilient material having an eyelet-like end sleeved onto said neck and provided with an aperture therein fitting snugly around said neck whereby said end is prevented from slipping off said neck by said nozzle, the other end of said strip being enlarged and socketed to provide a cap for closing said nozzle, said socket being frusto conical in shape and slightly smaller than said nozzle to tightly hug the latter and having a restricted mouth whereby said cap may be positioned over said nozzle with a snap action, and a finger grip tab extending from said cap for use in positioning the same.

ELMER C. FINK.