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J. C. ROCKWELL

2,411,058

COLLAPSIBLE TUBE CLOSURE

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Fig. 1.

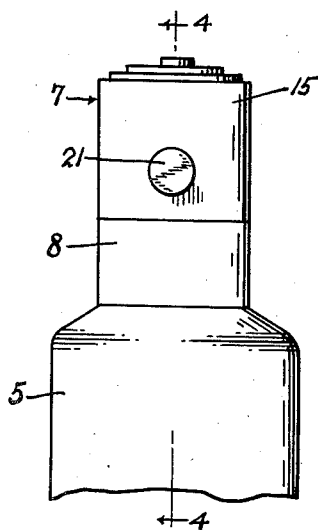


Fig. 3.

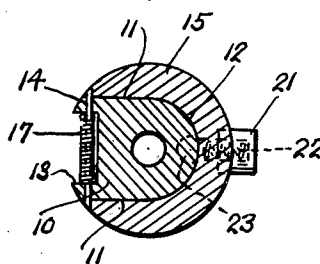


Fig. 2.

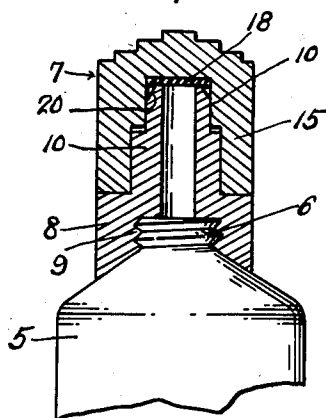
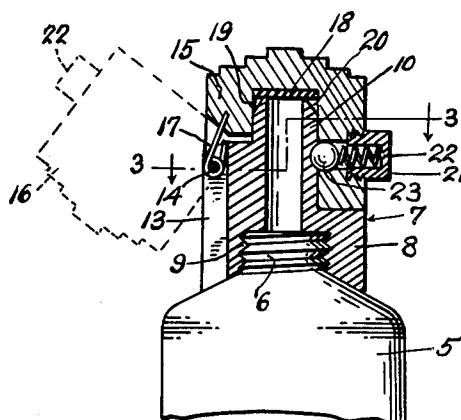


Fig. 4.



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COLLAPSIBLE TUBE CLOSURE

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Application January 17, 1944, Serial No. 518,605

1 Claim. (Cl. 220—32)

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This invention relates to new and useful improvements in closures for collapsible tubes, the principal object being to provide a device which can be readily applied to any conventional collapsible tube, to the end that a closure will be provided that will always keep the contents of the tube substantially air-tight and a closure which will not have to be disconnected from the tube in order to permit dispensing of the contents of the tube.

Other objects and advantages of the invention will become apparent to the reader of the following description.

In the drawing:

Figure 1 represents a fragmentary side elevational view of a tube showing the closure.

Figure 2 is a fragmentary side elevational view showing the improved closure in vertical section.

Figure 3 is a cross section taken substantially on the line 3—3 of Figure 4.

Figure 4 is a fragmentary sectional view taken substantially on the line 4—4 of Figure 1.

Referring to the drawing wherein like numerals designate like parts, it can be seen that numeral 5 denotes a collapsible tube having a threaded neck 6. Numeral 7 generally refers to the improved closure.

The improved closure consists of a body 8 having a threaded socket 9. The body 8 has an upstanding portion 10 provided with flat side portions 11, 11 and a rounded front portion 12. The back portion of the upstanding portion 10 has a vertically extending channel 13 and across this is disposed a pin 14 which extends into the side portions of a channeled cap 15. A spring 17 is located on the pin 14 and serves to normally maintain the cap 15 urged upwardly to an opened position, as shown in dotted lines in Figure 4. A

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packing disk 18 is provided in a pocket 19 of the cap 15 and into this projects a beveled nipple 20 located at the upper end of the upstanding portion 10.

5 A hollow plug 21 is threadedly disposed into the depending portion of the cap 15 and contains a spring 22 which serves to urge a ball 23 into a recess in the front side 12 of the upstanding portion 10, thus holding the cap in closed position.

10 While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

15 Having described the invention, what is claimed as new is:

20 A closure adapter comprising a body having a threaded socket for receiving the threaded neck of a collapsible tube and having a discharge opening, a closure for said discharge opening, a hinge pivoting said closure to said body, detent means for securing said closure in closed position, said discharge opening consisting of an upstanding 25 portion of said body and defining a nipple, and recess means in said closure for receiving, seating and closing said nipple, said closure having an upper portion entirely surrounding the upper periphery of said nipple and a lower portion, U-shaped in cross section, which is cut away on the 30 hinged side of the closure to embrace the lower portion of said nipple and said base on three sides thereof, said base being cut away within the cut away portion of said closure, said hinge means 35 engaging said closure and said base and positioned in said cut away portions.

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