March 7, 1939. S. K. SKOBLIN 2,149,795

CLOSURE FOR COLLAPSIBLE CONTAINERS

Filed Sept. 20, 1938

Fig. 1.

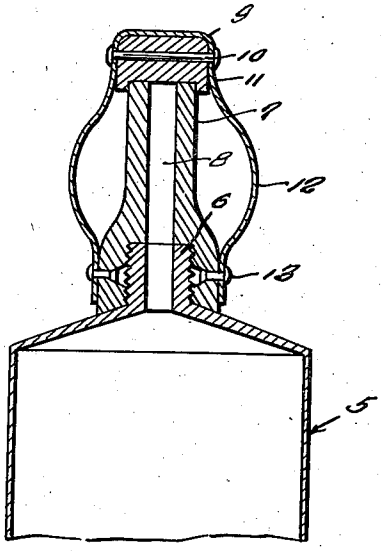


Fig. 2.

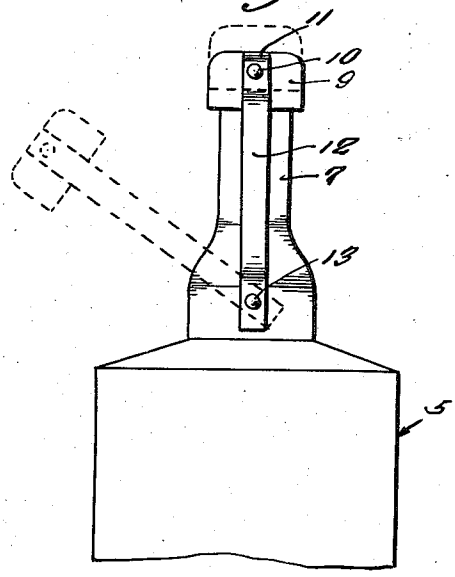


Fig. 3.

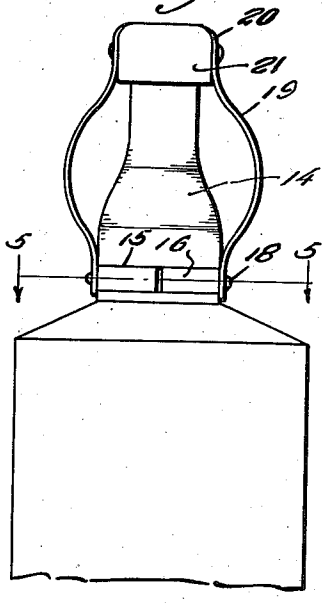
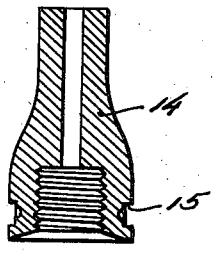


Fig. 4.



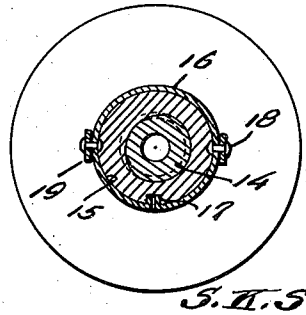


Fig. 5.

Inventor

S. K. Skoblin

By Clarence A. O'Brien and Hyman Berman

Attorneys

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UNITED STATES PATENT OFFICE

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CLOSURE FOR COLLAPSIBLE CONTAINERS

Serge K. Skoblin, Missoula, Mont.

Application September 20, 1938, Serial No. 230,855

2 Claims. (Cl. 221—60)

This invention relates to closures for collapsible tubes or containers employed in the sale and dispensing of shaving and dental creams and other semiliquid materials, and has for the primary object the provision of an inexpensive device of this character which may be readily adapted to a container after the purchase thereof by the removal of the usual cap and which will efficiently seal the container to prevent evaporation of the contents and the entrance of foreign matter and which may be easily operated to open the container for the dispensing of the contents and remain attached to the container to prevent loss thereof.

With these and other objects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which—

Figure 1 is a fragmentary vertical sectional view illustrating a portion of a collapsible container equipped with a closure constructed in accordance with my invention.

Figure 2 is a fragmentary side elevation showing the closure positioned in dotted lines for the opening of the container.

Figure 3 is a fragmentary side elevation illustrating a modification of the present invention.

Figure 4 is a vertical sectional view illustrating the nozzle or tube member of the closure employed in the construction of the modified form of the invention.

Figure 5 is a sectional view taken on line 5—5 of Figure 3.

Referring in detail to the drawing, the numeral 5 indicates a conventional type of collapsible container used in the dispensing and sale of dental and shaving creams and other semiliquid materials and which includes an externally screw threaded discharge neck 6 having thereon the conventional cap (not shown) when purchased. It is well known that the conventional cap is extremely annoying due to the fact that when removed it can be easily dropped and lost. To obviate such annoyances, the present invention provides a closure which may be readily adapted onto the neck 6 after the removal of the usual cap and consists of a discharge nozzle or tube 7 of substantially bottle shape having a bore 8, a portion of which is internally screw threaded to match the screw threads on the neck 6. The bore 8 is normally closed by a cap member 9 and to which is secured by a rivet 10 a spring member 11 including bowed or arcuately curved portions 12, the free ends of which are journaled on rivets or pivot pins 13 mounted in the tube or nozzle 7 adjacent the end thereof which is applied to the neck 6. The bowed or arcuately curved portions of the spring member 11 act to maintain the closure cap 9 seated against the end of the nozzle, consequently closing the bore thereof and preventing evaporation of the container contents and also the entrance of foreign matter into the container.

When it is desired to dispense the contents of the container pressure is applied to the bowed portions 12 elongating said portions causing the closure cap 9 to rise and by a slight manual force the spring member may be caused to journal on the pivot pins 13 positioning the closure cap to one side of the nozzle so that the contents may readily pass therefrom. It will be seen that the closure cap 9 when positioned laterally of the nozzle remains attached thereto to prevent loss and in a position so that no interference will be had in the dispensing of the contents of the container in the usual manner. Further, it will be seen that the nozzle 7 may be readily removed from the container when the contents thereof has been fully dispensed so as to be applied to another container.

Referring to my modified form of the invention as shown in Figures 3 to 5, inclusive, the nozzle is indicated by the character 14 and is similarly constructed to the nozzle 7 and is provided adjacent its container attaching end with an annular groove 15 for the reception of a split band 16 having inwardly directed ends 17 to fit in a notch formed in the wall of the groove. The wall of the groove is also provided with further notches to receive the pivot pins 18 employed for pivotally connecting the bowed portions 19 of the spring member 20 onto the split band 16. The spring member 20 is secured to the closure cap 21 as heretofore described in connection with the form of the invention shown in Figures 1 and 2. With the use of the split band it is possible to rotate the latter on the nozzle 14 by moving the inwardly directed ends 17 from one notch to another. The operation of removing the closure cap 21 is in accordance with that heretofore described in connection with the showing made in Figures 1 and 2. It is to be understood that in replacing the closure cap 21 onto the nozzle the bowed portions of the spring member are compressed and swung on the pivot pins until directly over the discharge end of the nozzle whence pressure is released on the bowed portions of the spring member allowing the latter to draw the cap tightly against the end of the nozzle effecting an efficient seal for the nozzle.

It is believed that the foregoing description, when taken in connection with the drawing, will fully set forth the construction and advantages of this invention to those skilled in the art to which such a device relates, so that further detailed description will not be required.

What I claim is:

1. A closure for collapsible containers comprising a nozzle including an internally screw threaded portion to be threaded on a neck of a container and having an annular groove provided with depressions in the walls thereof, a split band mounted in said groove and having inwardly directed ends to enter any of the depressions, a spring member having its ends pivoted on said band and including arcuately curved portions capable of being compressed, and a cap carried by the spring member for closing the nozzle and held seated thereon by the spring member and disengageable from the nozzle by compressing of said portions of the spring member in the direction of each other and the pivoting of said spring member on the nozzle to position the cap laterally thereof.

2. A closure for collapsible containers comprising a nozzle, a cap for opening and closing said nozzle, a spring member secured on the cap substantially intermediate the ends thereof and including bowed portions positioned normally at opposite sides of the nozzle, and means for pivotally and rotatably connecting the ends of the spring member on the nozzle.

SERGE K. SKOBLIN.