Aug. 10, 1926. 1,595,676

W. C. MERKERT

CLOSURE FOR RECEPTACLES

Filed June 19, 1924

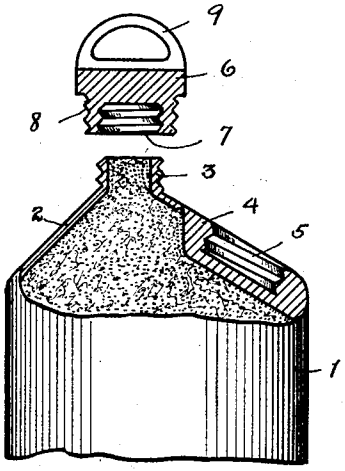


Fig. 1.

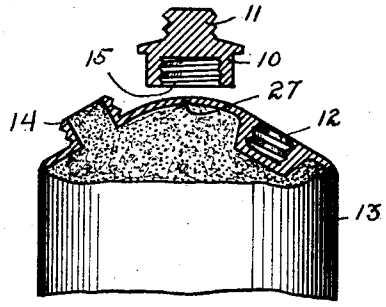


Fig. 2.

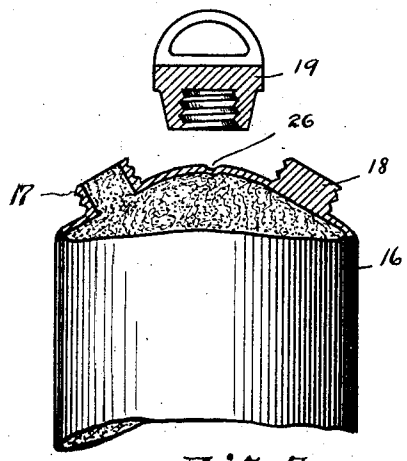


Fig. 3.

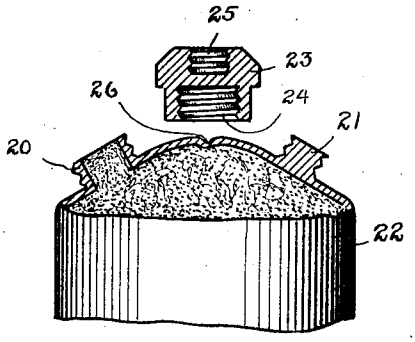


Fig. 4.

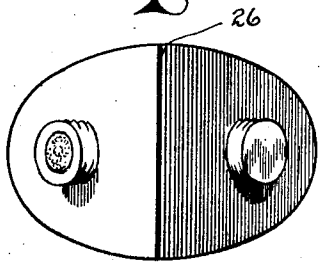


Fig. 5.

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UNITED STATES PATENT OFFICE.

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CLOSURE FOR RECEPTACLES.

Application filed June 19, 1924. Serial No. 720,982.

This invention relates to closures for receptacles and has special reference to a collapsible receptacle used for toiletries such as tooth paste, shaving soap, or the like.

The principal object is to provide a convenient form of retainer or keeper for the closure of such receptacle.

Other objects and advantages of the novel structure will appear in the further description of the invention.

Referring now to the accompanying drawing in which like characters indicate like parts:

Figure 1 is a sectional view of the upper end of a collapsible container tube showing one form of the invention:

Figure 2 is a similar view showing a somewhat modified form of a like construction:

Figure 3 is a similar view of a further modified form:

Figure 4 is a similar view of a still further modification: and

Figure 5 is a top plan view of either Figure 3 or Figure 4.

In Figure 1 the tube is shown at 1, the upper somewhat conically shaped end being illustrated at 2, the same terminating in the discharge thimble or nozzle 3 which is externally screw threaded. In this construction I have shown one wall 4 of the conical termination of the tube as being materially thickened so that a hole or recess 5 may be formed therein, the internal walls of which are screw-threaded as clearly illustrated. The cap or closure for this receptacle is illustrated at 6 and is provided with the internally screw threaded hole or recess for cooperative engagement over the thimble 3; the external wall of said cap being also screw threaded as at 8 for cooperative engagement with the recess 5 when the cap is removed from the nozzle or discharge thimble of the tube. I have shown the cap in this instance as being provided with a reduced finlike apertured portion 9 for convenient manipulation of same with the fingers, though it is apparent this may be a round knurled portion as is common in such devices.

It appears obvious that such a cap may be readily retained with the tube and in convenient accessibility for application thereto as a closure when the former is being used.

In Figure 2 I have shown a slight modification of the construction in Figure 1 in that the cap 10 is provided with a concentrically protruding thimble 11 upon the upper end thereof which is externally screw threaded for engagement with a recess 12 which is formed in the upper end of the tube 13, the latter having the usual externally screw threaded thimble 14 to which the cap is applied it being provided with the usual internally screw threaded recess 15 for such purpose.

In Figure 3 I have illustrated a further modification in that the upper end of the tube 16 is provided with two protruding thimbles 17 and 18, one upon either side of the center of the upper end of the tube, and to either one of which the cap 19 is screw threadedly applicable, so that when applied to the thimble 17 it acts as a closure for same, and when applied to the thimble 18, is kept from accidental loss or separation from the tube.

Again in Figure 4 the modification represents two thimbles of different sizes, the discharge thimble being illustrated at 20 and the keeper thimble at 21, while the tube is shown at 22 and the cap at 23. This cap is of knurled circular design having the larger internally screw threaded recess 24 for application to the discharge thimble 20, while in its opposite upper end is provided the smaller internally screw threaded recess 25 for application to the keeper thimble 21. In this structure, and that also shown in Figure 3, I have shown a diametrically disposed groove or slot 26 for the purpose of weakening the upper end of the tube, a portion of the material of which the tube is composed being removed for such purpose. The object of this is to weaken the tube transversely, and so that when the final remnants of the contents of the tube are to be removed the end of the latter may be collapsed and conveniently squeezed together for the ejection of the ultimate contents. This groove is more clearly discernible in Figure 5 of the drawings and is preferably centrally of the tube whether the latter be circular or elliptical in shape. In Figure 2 the groove is shown upon the inner wall of

the end of the tube, it being apparent that similar results may be accomplished in this way if desired. However that form shown in Figures 3, 4 and 5 is preferred.

As a further functioning of this groove I prefer to color that portion of the end of the tube, at least on one side thereof, preferably that one side be colored black while the other side white or left the natural color of the tube construction. By this means it will also be apparent on which side of the center line of demarkation the closure is located so that error in the matter of leaving the opening in the tube uncovered may be reduced to a minimum. For example it is quite apparent that, in the construction shown in either Figures 3 or 4, when the cap is removed from the discharge thimble it may carry with it a slight coloring of the contents of the tube, resulting, when screwed upon the keeper thimble, in leaving a coloring on the end of same or as it were daubing the end of the keeper thimble with the contents of the tube, so that were it not for the fact that the discharge thimble is located on a certain designated side of the tube (such designation being determined by the color thereof, as before stated) the tube might frequently be left uncovered or open, whereas the position of the cap or closure in respect to either one side or the other of the tube would be apparent even at a distance, provided the coloring of the end of the tube is distinct.

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

1. In combination, a collapsible tube of the character described having an exteriorly threaded discharge thimble thereupon, an exteriorly and interiorly threaded closure for screw threaded engagement with said discharge thimble, and screw threaded means integrally formed upon the end of said tube for receiving the exteriorly threaded portion of the closure.

2. In combination, a collapsible tube of the character described having a screw threaded discharge nipple thereupon, screw threaded cap retaining means integrally formed upon the discharge end of said tube, and a closure cap having a screw threaded portion for engagement with the discharge nipple, and another screw threaded portion for engagement with the cap retaining means.

In testimony whereof I hereunto affix my signature.

WALTER C. MERKERT.