Aug. 2, 1927. 1,637,890

G. E. BAKER

COLLAPSIBLE TUBE WITH AN UNLOSABLE CAP

Filed July 5, 1924

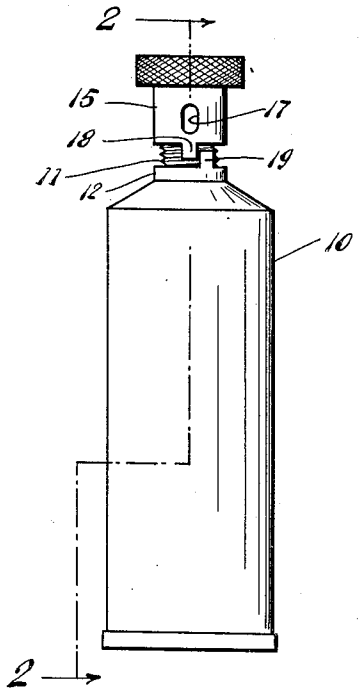


Fig. 1

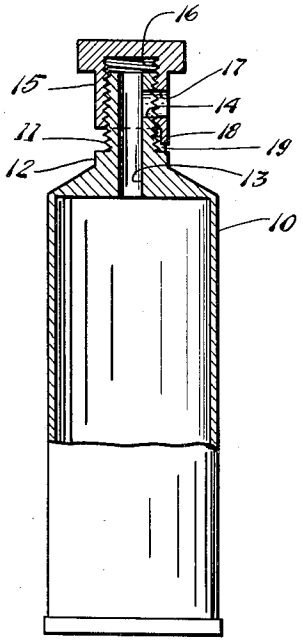


Fig. 2

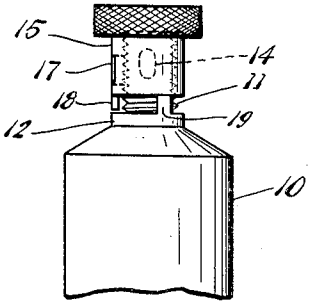


Fig. 3

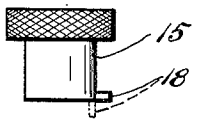


Fig. 4

Witnesses:
W. Schmidhardt
J. D. Steuve

Inventor:
George E. Baker
By Joshua R. H. Potts
His Attorney.

Patented Aug. 2, 1927. 1,637,890

UNITED STATES PATENT OFFICE.

GEORGE E. BAKER, OF CHICAGO, ILLINOIS.

COLLAPSIBLE TUBE WITH AN UNLOSABLE CAP.

Application filed July 5, 1924. Serial No. 724,274.

My invention relates to a collapsible tube with an unlosable cap, and more particularly to such a tube or container having a screw-cap which is ordinarily removed to permit discharge of the contents from said tube. Such removed caps are frequently dropped or misplaced and lost; and it is my object to provide such a tube with a cap which is movable but not removable or losable therefrom; and a further object is to provide such a cap with means for mounting it unlosably on the tube, by the use of a minimum of parts and thereby provide a very economical construction.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1 is a side elevation of my invention;

Fig. 2 is a view partly in section taken on line 2—2 of Fig. 1;

Fig. 3 is a partial view showing the cap in closed position; and

Fig. 4 is a view of the cap with its locking lug bent laterally before mounting said cap on the tube.

The form of invention illustrated comprises a collapsible tube or container 10 generally used for holding and dispensing shaving cream, face cream, tooth paste, etc., and which is provided with a threaded neck 11 and an annular shoulder 12 at the lower end of said neck, a discharge channel or passage 13 extending longitudinally through said neck, and a discharge opening 14 extending through said neck transversely from said channel 13. A cap or closure member 15 is provided with an interior threaded passage 16 to fit the threads on neck 11, and an opening 17 is provided in the side of said cap adapted to be registered with the opening 14 in the neck 12.

The means for positively retaining the cap on the neck includes a lug or projection 18 being integral with and extending downwardly from cap 15, and a lug 19 provided on neck 11 and extending upwardly from the annular shoulder 12.

For the purpose of assembling the device, lug 19 may be fastened on neck 11 and annular shoulder 12 after the cap 15 has been threaded entirely downward on neck 11, and this lug 19 is then placed in position so that the side openings 14 and 17 are in register when the cap 15 is turned or rotated upwardly so that its lug 18 engages the lug 19, as indicated in Figs. 1 and 2. A slight rotation, about a quarter turn, in clockwise direction will bring lug 18 down on annular shoulder 12 and stop the downward movement of the cap and at the same time completely close the opening 14 on the neck. Or if it is desired the lug 19 may be made integral with annular shoulder 12 and neck 11, in the manufacture of the tube, and the lug 18 on cap 15 may be bent outwardly as shown in full lines in Fig. 4, and the cap then threaded in position on the neck, and when the cap has been moved downwardly into the position shown in Fig. 3 then lug 18 may be bent downwardly into the position shown in dotted lines in Fig. 4 and as shown in full lines in the remaining figures, thus providing locking means on the cap and tube for preventing the removal or loss of cap 15 from tube 10. My device thus includes a minimum of parts, namely two integral parts, which makes it very economical in manufacture.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

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

1. A collapsible tube having an annular shoulder and a threaded neck extending upwardly therefrom provided with a longitudinal passage and communicating with the interior of the tube, the neck also having a discharge opening extending transversely from said passage, a lug formed integral with the shoulder, a cap provided with a discharge opening in one side and registerable with the transverse opening, and a lug formed integral on the lower edge of the cap and being bendable downwardly and inwardly to engage the first lug and stop removal of the cap when the openings are

in registration, the lug on the cap engaging the annular shoulder to limit the movement of the cap for closing said openings.

2. A collapsible tube having a threaded neck and a cap threaded thereon, a stop carried by the tube at one side of the neck, and a bendable lug carried by the cap and arranged to be disposed to clear the stop to permit the cap to be rotated freely or to extend in the path of the stop whereby the rotation of the cap is limited.

3. The combination with a collapsible tube having a discharge opening in one side of the neck thereof and a cap threaded on the neck and also provided with an opening in one side thereof adapted to register with the first-mentioned opening, of an upstanding stop carried by the tube at one side of the neck, and a bendable lug carried by the cap normally arranged at right angles to the latter to permit the cap to be threaded on the neck and subsequently bent to occupy a position where it will engage the stop upon rotation of the cap to only allow the cap to be rotated sufficiently to bring its outlet opening into registration with the outlet opening in the neck.

In testimony whereof I have signed my name to this specification.

GEORGE E. BAKER.