Dec. 7, 1943. C. I. HIXSON 2,336,357

COMBINED CLOSURE AND MASSAGE DEVICE

Filed Nov. 28, 1942

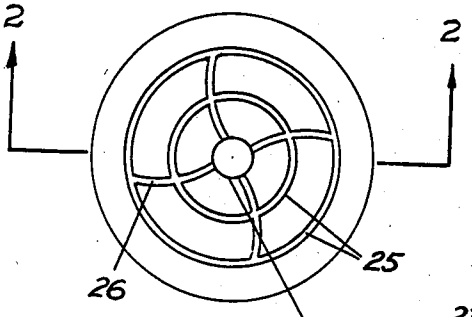


Fig. 1.

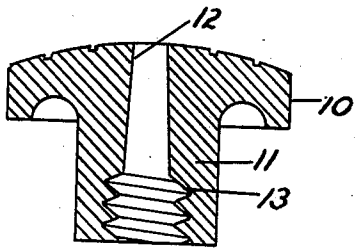


Fig. 2.

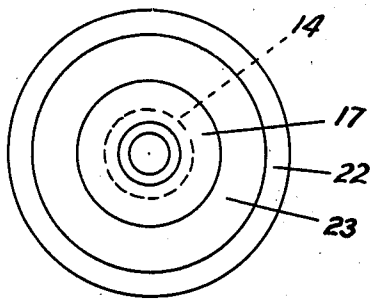


Fig. 3.

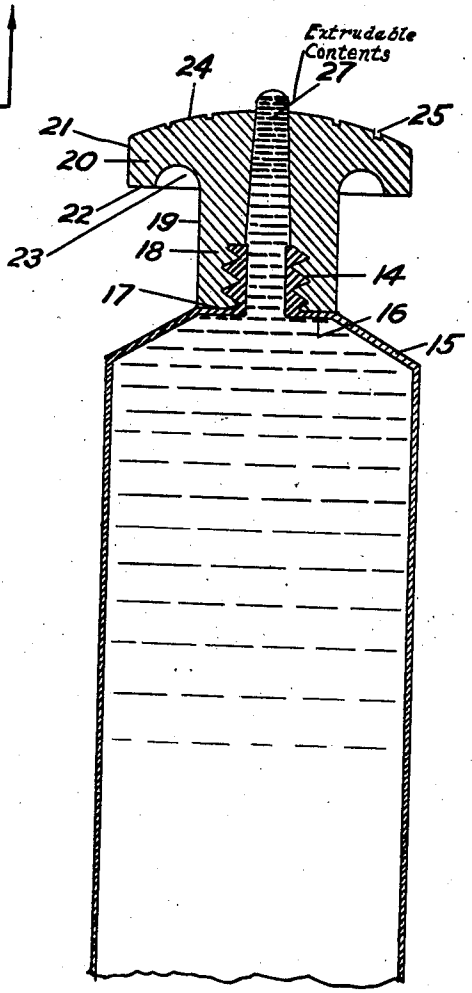


Fig. 4.

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2,336,357

UNITED STATES PATENT OFFICE

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COMBINED CLOSURE AND MASSAGE DEVICE

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2 Claims. (Cl. 128—65)

This invention relates to a combined closure and massaging device.

The general object of the invention is to provide an improved dispensing closure for use on a collapsible tube and wherein the closure includes an end face which is shaped to massage the face or a portion of the body over which the closure is moved.

A more specific object of this invention is to provide a novel one-piece closure for a container.

Another object of the invention is to provide a novel massaging closure for a container.

Other objects and advantages of the invention will be apparent from the following description taken in connection with the accompanying drawing wherein:

Fig. 1 is a top plan view of a combined closure and massage device embodying the features of my invention;

Fig. 2 is a section taken on line 2—2 Fig. 1;

Fig. 3 is a bottom plan view of the closure, and

Fig. 4 is a fragmentary central sectional view showing a collapsible tube with my novel closure thereon.

Referring to the drawing by reference characters I have shown my invention as embodied in a combined closure and massage device which is indicated generally at 10.

The device is preferably made of plastic, metal, fiber or other suitable material and is intended primarily to be used as a closure for collapsible tubes.

As shown the device includes a body 11 having a tapered discharge aperture 12 which extends therethrough. The inner end of the discharge aperture includes a threaded bore 13 which is adapted to engage threads 14 on the neck of a collapsible tube.

As shown the collapsible tube has a shoulder 16 on the end thereof adjacent to threads 14 and this shoulder is shown as engaged by the planar end 17 on the body 18 of the closure. The body 18 has a cylindrical wall 19 and at the end remote from the threads 13 has an outwardly directed flange 20. This flange 20 has a cylindrical outer wall 21 and has a planar inner face 22 which is spaced from the cylindrical portion 19 by a semicylindrical groove 23.

The outer end of the closure is convex as at 24 and is provided with a plurality of concentric grooves 25 which are coaxial with the dispensing aperture 12. A plurality of arcuate grooves 26 intersect the grooves 25. The grooves 26 communicate with the dispensing aperture 12 at their inner ends. The grooves 26 are substantially radially arranged.

In use the usual threaded cap is removed from the collapsible tube and my improved closure is placed thereon. When the tube is squeezed the material 27 passes through the dispensing aperture 12. When the end surface 24 of the closure is moved over the face the material 27 being dispensed passes into the grooves 26 thence out these grooves and into the circular grooves 25 and as light pressure is applied to tube 25 and further material is discharged this material is distributed over the end of the end 24 of the closure and is "worked" into the skin so that simultaneously with the application a massaging effect is produced.

My device may be used for dispensing a number of preparations and is particularly adapted for dispensing shaving cream and its construction is such that the shaving cream is thoroughly "worked" into the skin so that a maximum efficiency results.

The dispensing aperture 12 is tapered so that the material will be discharged in a smaller quantity and also so that when the closure is left with material in the discharge aperture the congealing of the material in the end will form a kind of plug which will protect the rest of the material in the closure and in the tube.

From the foregoing description it will be apparent that I have invented a novel combined closure and massage device which can be economically manufactured and which is highly efficient for its intended purpose.

Having thus described my invention, I claim:

1. A combined closure and massage device adapted for use on a collapsible tube which has a threaded discharge neck, said device including a one-piece rigid body having a threaded bore adapted to engage the threaded neck on a tube, said body having a cylindrical wall and having an outwardly directed flange on one end thereof, said body having a central bore the outer end of said body being convex, the outer end of said body having spaced continuous grooves therein arranged in concentric manner, and a plurality of other grooves in the outer face and extending substantially radially, said other grooves intersecting said central bore and intersecting the spaced grooves, said other grooves serving to conduct material to said circular grooves.

2. A combined closure and massage device adapted for use on a collapsible tube which has a threaded discharge neck, said device including

a one piece rigid body having a threaded bore adapted to engage the threaded neck on a tube, the body having a planar end adapted to engage the end of a tube, said body in advance of said threads having an outwardly tapering discharge aperture, said body having a cylindrical wall and having an outwardly directed flange thereon on the end remote from the threads, said flange having a cylindrical outer wall and having a planar inner face portion, said inner face portion being joined with the cylindrical body wall by a circular groove which is semi-cylindrical in cross section, the outer end of said body being convex, the outer end of said body having spaced circular grooves therein which are coaxial with the discharge aperture and a plurality of arcuate grooves in the outer face and extending outwardly from the dispensing aperture and intersecting the circular grooves, said arcuate grooves serving to conduct material from said discharge aperture to said circular grooves.

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