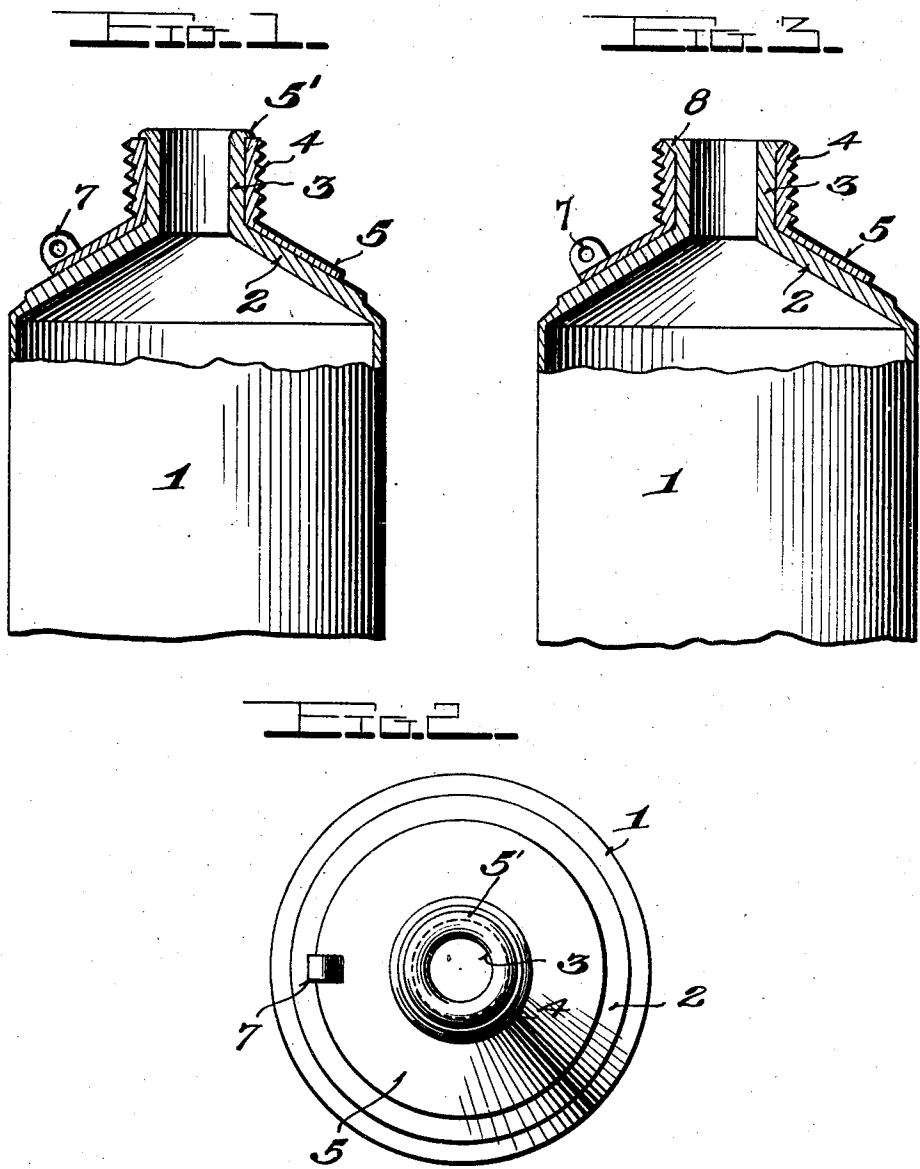


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C. J. ROHLAND
COLLAPSIBLE TUBE
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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE TUBE.

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This invention relates to certain new and useful improvements in collapsible tubes and the primary object thereof is to simplify and improve the neck structures thereof.

Heretofore, in the art, the neck and base of the tube have been formed as an integral structure, and relatively thickened so as to reinforce and strengthen the neck and also to provide for the formation of the usual threads thereon that engage the cap threads.

The present invention briefly proposes a tube structure wherein the neck structure is thin or formed of the same thickness as that of the body, and has a separately formed finishing fitting applied thereto, the fitting being pre-threaded and secured to the tube so as to cause the neck structure to be of its usual thickened and reinforced form.

In the drawings:—

Figure 1 is a side elevation, of the upper portion of a collapsible tube, partly broken away and in section with the present invention applied thereto;

Figure 2 is a top plan view of Fig. 1 and

Figure 3 is a view similar to Fig. 1 of a modified form of the invention.

In proceeding in accordance with the present invention a tube 1 is employed having a neck structure composed of a base 2 and a neck proper constituting a smooth or unthreaded nozzle or outlet 3. The above parts are of integral formation and relatively thin. A finishing fitting composed of a threaded nozzle 4 having a base or skirt 5 of outwardly flared formation is tightly fitted onto the neck structure and conforms thereto so as to form a close union therewith. The fitting 4 is pre-threaded and serves to threadedly receive the usual closure cap threads, while the skirt 5 seats on the base of the neck of the tube, whereby the relatively thin neck structure of the tube is reinforced, or formed of double thickness.

For the purpose of rigidly securing the

fitting to the tube neck, the tube neck may be expanded to secure the fitting thereto or the extreme free edge of the nozzle 3 may be expanded into engagement with the fitting as shown at 8 in Figure 3, but preferably by extending the nozzle 3 of the tube beyond the nozzle 4 of the fitting and by then spinning or swedging the extension of the nozzle 3 outwardly to engage over the fitting nozzle as depicted at 5' in Figs. 1 and 2.

Further, with the present invention, eyes may be provided on the skirt, either by forming an integral raised and perforated part as shown at 7, or by bending or curling a part of the fitting. These eyes are for the purpose of affording hinge knuckles or pivotal supports for the wires used in connection with the so-called captive tops or caps.

The fittings may thus be more expeditiously and economically produced, and applied to the tubes, to produce reinforced neck structures, than in the instance of tubes wherein the complete necks are produced integrally with the tubes.

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

In combination with a collapsible tube having a neck formed with a flared base portion, a combined reinforcing and eye-carrying fitting having a threaded neck tightly secured over the tube neck and having a flared skirt extending outwardly therefrom at an angle to closely conform to the flared base portion of the tube neck, the tube neck being extended beyond the fitting neck and being swaged outwardly and thereagainst to hold the fitting onto the tube, and an eye formed integral with the fitting skirt at a spaced distance from the threaded neck and adjacent the outer edge of said skirt portion.

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

CURT J. ROHLAND.