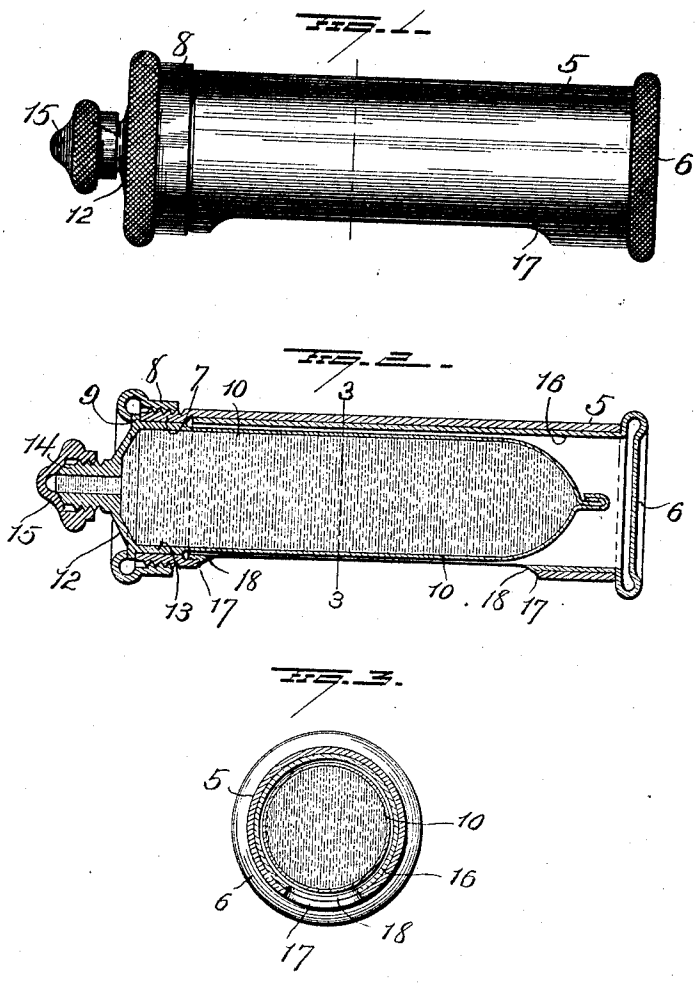


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 COLLAPSIBLE DISPENSING TUBE AND CONTAINER.
 APPLICATION FILED AUG. 11, 1919. RENEWED MAY 3, 1921.
 1,382,140. Patented June 21, 1921.



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COLLAPSIBLE DISPENSING-TUBE AND CONTAINER.

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Specification of Letters Patent. Patented June 21, 1921.

Application filed August 11, 1919, Serial No. 316,716. Renewed May 3, 1921. Serial No. 466,540.

To all whom it may concern:

Be it known that I, BENJAMIN E. D. STAFFORD, a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Collapsible Dispensing-Tubes and Containers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in collapsible dispensing tubes and a container or finger tube for the same.

Many well known toilet and medical preparations and the like are sold in collapsible tubes which are made of flexible sheet material and are compressed by the fingers to eject the contents from a nozzle in the end of the tube.

The object of my invention is to provide an ornamental container or holder adapted to receive a collapsible tube of substantially the type now in common use and inclose and protect it against undue pressure when grasped in the hand.

A further object is to provide a collapsible tube specially designed for use with the container or finger tube, but which may be used without such container.

With these ends in view my invention consists broadly in a collapsible tube having a peripheral flange or rib at its head end, a container adapted to receive said tube, the open end of the container resting against the flange or rib on the head of the collapsible tube and a clamping ring secured to the outer end of the container and overlapping the flange on the periphery of the head of the collapsible tube for locking it in place within the container.

My invention further consists in a container and its clamping ring, the container having a finger slot through which the collapsible tube may be engaged and pressed against for expelling its contents, and a hood carried by the container for closing the finger slot in the latter.

My invention further consists in the details of construction as will be more fully explained and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation of the container and tube assembled; Fig. 2 is a view in longitudinal

section of the same and Fig. 3 is a view in cross section on the line *a-a* of Fig. 2.

5 represents the container consisting of a body preferably cylindrical and having a closure 6 at one end and open at the other end. The open end of the container is slightly contracted as shown at 7, so that its internal diameter at its open end is slightly less than the internal diameter of the remaining portion thereof. The contracted end of the container is externally threaded to receive the ring clamp, which is rounded as shown to give a beaded or ribbed effect to the head end of the container to make it conform to the bead produced by rounding the edge of the base or end closure 6, and both beads so formed are milled or otherwise roughened to afford a firm hand hold when the device is grasped by the hand for unscrewing or screwing on the clamp 8.

10 is a flexible or collapsible tube made of seamless material and is identical with the tube now in general use for holding tooth paste-shaving cream-library paste, etc., except as to the flange or rib 11 formed on the periphery of the head, which flange is not present in the tubes as now made. The head 12 of the collapsible tube is thicker than the body of the latter so that the head will be comparatively stiff and rigid and the cylindrical portion 13 thereof is designed to make a close or snug fit with the open and slightly contracted end of the container 5. The body of the collapsible tube has a loose fit in the body of the container so that it may be readily introduced therein, and when the parts are assembled, the flange 11 of the head of tube 10 rests on the contracted end of the container, and is held there by the clamping ring 8 which overhangs the flange or rib on the head and clamps the latter to the outer end of the container. This ring simply covers the outer edge of the head of the tube, leaving the central part of the head exposed and its nozzle 14 readily accessible. This nozzle is normally closed by a screw cap 15.

16 is a hood, which in the present instance is shown integral with the end closure 6. It is cylindrical in shape to conform to and snugly fit within the container 5, and is approximately the length of the latter, so as to close the finger slot 17 in the container, which slot extends substantially the length of the tube. The hood 16 is also provided

with a slot 18 of the shape and size of the slot 17 in the container, so that when the hood is turned by turning the end closure 6, the finger opening or slot 18 therein will
 5 aline with the finger opening or slot 17 in the container and expose the collapsible tube 10 which may then be pressed by a finger or fingers of the hand holding the container to eject a part of the contents of the tube. By
 10 giving the end closure a part turn, the hood will be turned and the finger opening 18 therein will be removed from the plane of the finger opening in the tube and thus conceal and protect the collapsible tube against
 15 accidental pressure.

In using the device the container is grasped in the hand with the finger opening therein in position to receive the ends of the four fingers of the hand holding it, and the
 20 contents ejected through the nozzle 14 by compressing the tube.

The tubes 10 are filled through their rear ends, which are subsequently closed by flattening and bending and are sold like the ordinary tubes now in common use to be used
 25 with a container sold separately, or they may be applied to the containers and sold with them. The tube however is complete in itself and may be used without the container.
 30 The latter however forms an ornamental cover for the tube and protects it against accidental rupture due to excessive pressure to which an unprotected tube is subjected when grasped by the hand and compressed.

35 It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself
 40 to the exact construction and arrangement of parts shown and described, but

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

45 1. A collapsible tube having an integral head, the latter being provided with a discharge nozzle and also with a peripheral flange.

50 2. The combination of a collapsible tube having an integral head provided with a peripheral projection, a container having a finger slot therein and inclosing the body portion of said tube, the open end of said
 55 container bearing against the rear face of said projection, and a clamp secured to the container and overlapping and bearing on the outer face of said projection for locking the container to the tube.

60 3. The combination of a collapsible tube

having an integral head provided with a peripheral projection, a container having a finger slot therein and inclosing the body portion of said tube, the open end of the container bearing against the rear face of
 65 said projection and a ring shaped clamp secured to the container and overhanging and bearing on the outer face of the projection for locking the container to the tube.

4. The combination of a collapsible tube
 70 having an integral head provided with a peripheral flange, a container having a finger slot therein and inclosing the body portion of said tube, the open end of the container bearing against the rear face of said flange
 75 on the head and a ring shaped clamp secured to the outer surface of the open end of the container and overhanging and bearing on the outer face of the flange for locking the container to the tube.

5. The combination of a collapsible tube the head of which has a cylindrical portion and a peripheral projection, a container the open end of which is slightly contracted to
 80 bear against and make a snug fit with the cylindrical portion of the head and bear against the rear face of the projection and a clamp secured to the container and engaging the upper face of the projection for
 85 locking the container to the tube.

6. The combination of a collapsible tube having a head provided with a peripheral projection, a container inclosing the body portion of said tube and having a finger
 90 slot therein, the open end of the container bearing against the rear face of the projection on the head, a clamp secured to the container and overlapping the projection on the head of the tube for locking the container to the tube and a hood carried by the
 95 container and adapted to be turned so as to cover the finger slot in the latter.

7. The combination of a tube having an integral head provided with a nozzle and a peripheral flange, a container having a finger slot and inclosing the body of said tube
 100 and bearing at one end against the flange on the head and a ring clamp secured to the container and overhanging and bearing on the outer face of the peripheral flange for locking the container to the tube, the nozzle
 105 of the head of the tube being exposed and projecting through the ring clamp.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

BENJAMIN E. D. STAFFORD.

Witnesses:

ANDREW HAMM,
 HARRY M. WILLIS.