

Dec. 30, 1930.

F. WOLF

1,787,061

ACCESSORY FOR CONTAINERS

Filed Dec. 24, 1928

2 Sheets-Sheet 1

Fig. 1.

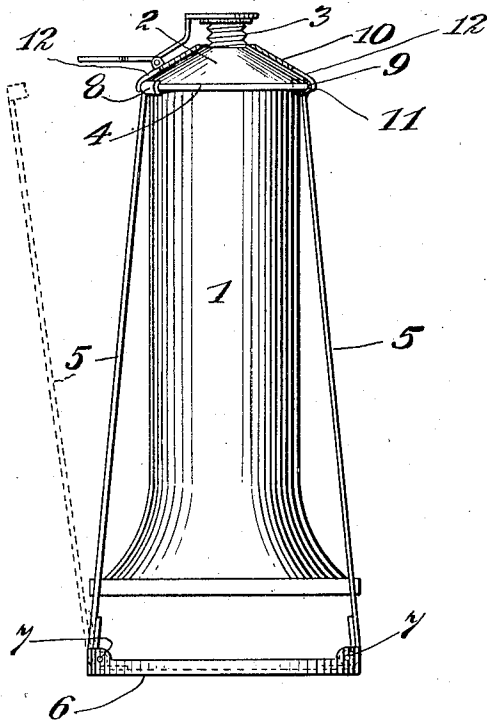


Fig. 2.

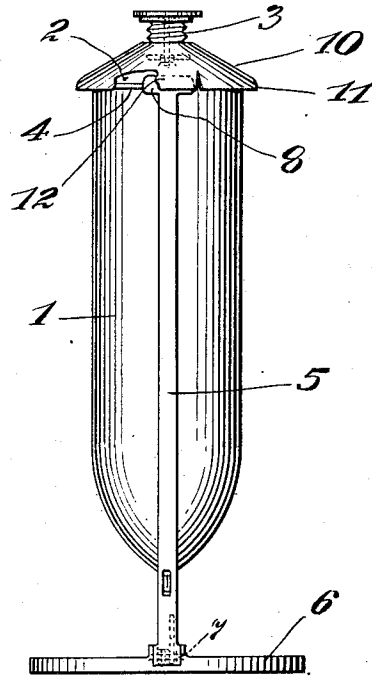


Fig. 3.

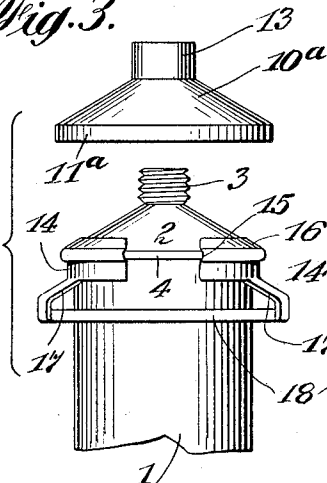


Fig. 4.

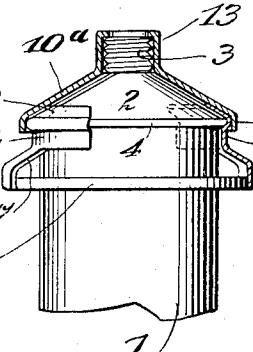
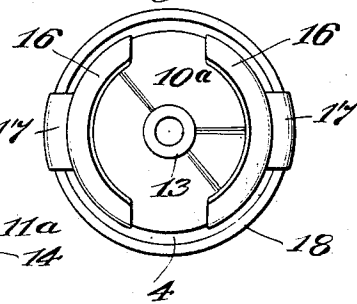


Fig. 5.



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2 Sheets-Sheet 2

Fig. 6.

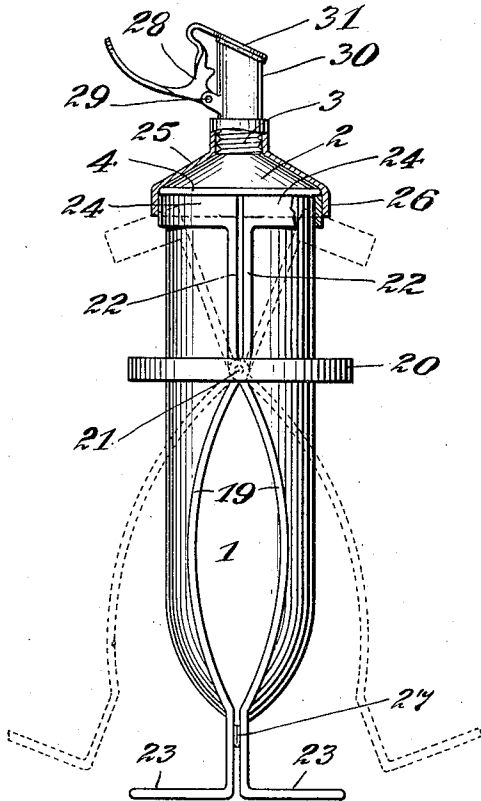


Fig. 7.

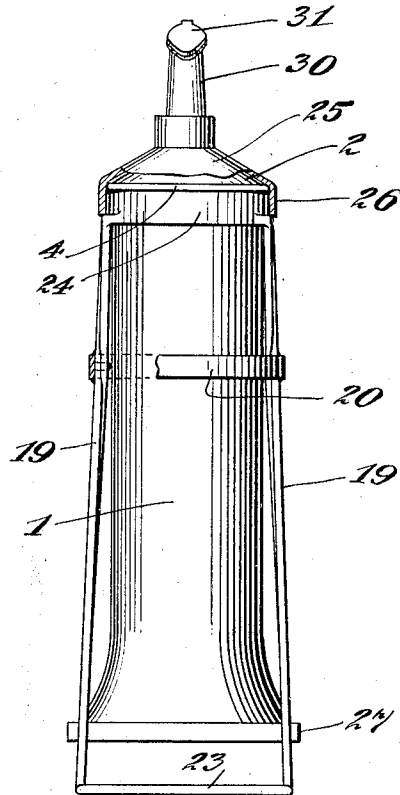


Fig. 8.

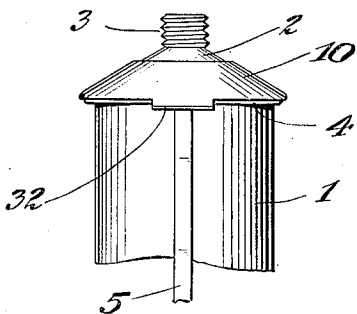
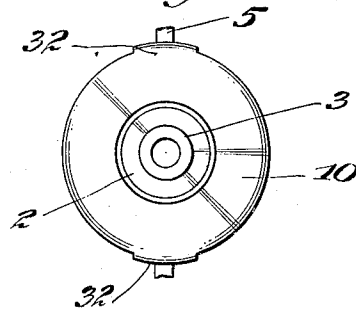


Fig. 9.



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UNITED STATES PATENT OFFICE

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ACCESSORY FOR CONTAINERS

Application filed December 24, 1928. Serial No. 328,103.

This invention relates to an accessory for containers, especially containers in the form of collapsible tubes which are commonly used for storing various kinds of preparations that can be expelled simply by squeezing the tubes.

An object of the invention is to provide the relatively soft tube with an accessory in the form of a member to fit on the top of the tube; which is usually somewhat rigid and conical and has its periphery projecting beyond the circumference of the body of the tube to afford a relatively strong, stiff bead or flange. By means of this bead or flange the tube can be advantageously engaged by a stand or other attachment and the member can be made to fit the top of the tube snugly, protecting and strengthening the top and holding the attachment in place.

The nature of the invention will be clear from the following description, taken with the drawings, on which several embodiments of the invention are illustrated. However, I do not wish to be limited to the details of construction actually shown, but reserve the right to make changes without departing from the scope and spirit of the invention.

On the drawings,

Figure 1 is a side view partly in section of the tube having an accessory according to the invention;

Figure 2 is a view seen from the right of Figure 1;

Figures 3, 4 and 5 show a modification;

Figure 6 is a side of a further modification;

Figure 7 is a view seen from the right of Figure 6; and

Figures 8 and 9 are side and top views, respectively, of another modification.

On the drawings the same numerals identify the same parts throughout.

Referring first to Figure 1, I use the numeral 1 to indicate the soft body of a tube having a relatively hard cone-shaped top 2 with a central outlet nipple 3. The delivery opening of this tube through the nipple 3 is ordinarily closed by a screw cap on this neck. The outer edge or periphery of the top 2 surrounding the yielding body of the tube and providing the strong bead-flange, is indicated

at 4. To mount the tube I may use a stand or holder comprising a pair of legs 5 attached to a base 6, either by pivoting or by connecting the legs rigidly to the base and making them resilient or flexible. I show the legs united to the base by spring hinges which normally tend to move the legs towards each other as at 7.

The upper ends 8 of the legs are widened and provided with transverse grooves 9 on their inner faces; and when the tube is placed in the stand the upper ends of the legs 5 are drawn apart to receive the bead or flange 4. Then the grooves receive the flange 4 and the tube is maintained in the stand and not permitted to fall downward.

The attachment is shown at 10 in the form of a member or cover which is conical and open at the upper end to give passage to the nipple 3. The lower end has a rim 11 which is slipped past the ends 8 of the legs 5. This rim may be made resilient or springy so that it will yield when it is slipped past the ends 8 of the legs 5. This rim may be cut at several points to provide portions 12 which yield more readily to cooperate with the legs; or instead of the rim extending entirely around the cover 10, the rim 11 may have projections at diametrically opposite points and yieldable so that the cover can be snapped in place past the upper ends 8 of the legs 5 to make the legs securely engage and grip the top 2 and bead-flange 4.

The legs 5 may be recessed on their inner faces, to receive the ends of the lower edge or bottom of the tube; when the legs 5 are clamped by the cover 10; and the legs 5 can be spaced just far enough apart for this purpose.

In Figures 3, 4 and 5 the cover is shown at 10a with a nozzle 13 to surround the threaded nipple 3 of the tube 1. The flange or rim 11a of the cover here encircles a pair of gripping elements 14 which engage the sides of the tube and may be shaped to provide grooves indicated at 15 to receive the flange 4 and portions 16 which rest upon the surface of the top 2 of the tube 1. The clamping or gripping elements 14 are connected by resilient arms 17 to an encircling ring 18.

When the attachment comprising the ring 18 and the gripping elements 14 is put in place upon the tube 1 and the accessory 10a is added, the accessory rests upon the top of the tube 2 and the rim 11a will encircle the gripping elements 14 and prevent disengagement. The ring 18 can be employed to hang up the tube 1 or for other purposes and the cover 10a may be utilized to mount a pivoted cap (not shown) to close the outlet opening through the nozzle 13 and nipple 3 when the tube is not in use. The construction of Figures 3, 4 and 5 is disclosed in my copending application, Serial No. 247,999, accessory devices for collapsible tubes, filed January 18, 1928, of which this case is in part a continuation.

Figures 6 and 7 show another embodiment of the invention in which a pair of legs 19 are pivoted to an encircling ring 20 at a point 21. The legs are in the form of open frames having upright portions 22 at each side of the tube; the lower ends of the side portions being turned out to provide feet 23 on which the holder may stand. Each leg at its upper end has its side portions joined by a semi-circular band 24, and the two bands 24 are similar to the elements 14 in Figures 3, 4 and 5 to engage the opposite sides of the tube just under the flange 4.

The stand is held with its parts in position to support the tube by the attachment member or cover 25 having a down-turned flange 26, this cover being conical to be placed upon the end of tube 1, the upper end of the cover being open to allow the neck 3 to pass through and the opposite end having flange 26 which snugly encircles the bands 24 and holds the bands 24 in firm engagement with the tube 1. The lower end 27 of the tube may be engaged by the two legs 19.

The cover member carries an arm 28, pivoted at 29 on a discharge nozzle 30 on the member 25. This nozzle receives the nipple or neck 3. It is bevelled at the end and a valve cap 31 on the arm 28 fits firmly over the end of the nozzle to close it. To withdraw this cap, the arm 28 needs only to be depressed, as will be understood.

In Figures 8 and 9 the cover member or accessory has the same form as in Figures 1 and 2, except that, instead of a circumferential rim, the edge of the cover has two opposite extensions 32, which are strong but resilient, to be slipped over the attachment and grip same to secure the tube therein.

I claim:

1. A soft collapsible tube comprising a rigid top with a bead-flange at the periphery of the top, an attachment for the tube to engage the flange at the top, and an accessory member for the top extending past the flange to grip the attachment and hold it in engagement with the tube.

2. A soft collapsible tube having a rigid

top with a bead-flange at its periphery, an attachment for the tube to engage said flange, and an accessory member to fit upon the top, and having a rim extending all around it, the rim encircling the attachment to hold it in engagement with said tube at said flange.

3. An accessory for a soft collapsible tube having a central outlet neck and a rigid top with a bead-flange at its periphery, the accessory comprising a cover member for the outlet end of the tube, the cover having a nozzle to encircle the outlet neck of the tube, said cover being shaped to conform to the top, and an attachment for the tube embodying cooperating parts adapted to maintain an engagement with the tube and flange, and to be held in place by said cover.

4. An accessory for a soft collapsible tube having a rigid top with a bead-flange at the periphery of the top, the accessory comprising a member to be placed upon said top, the member being open to permit the tube to discharge through it, a stand comprising legs the upper ends of which are shaped on their inner faces to engage the tube adjacent said top, below and close to said flange, at opposite sides of the tube, said cover having a downturned rim extending around its circumference to be pressed past said flange and engage the upper ends of the legs to secure the legs in supporting position.

5. The combination according to claim 4 wherein the legs are grooved to receive said flange.

6. An accessory for a soft collapsible tube having a rigid top with a bead-flange at the periphery of the top, the accessory comprising a curved part of greater arc dimension than the tube, engaging elements yieldably attached to said part, said elements being shaped to engage the body and bead-flange, and a cover member for the outlet end of the tube, the member having a rim to encircle the said engaging elements.

7. In combination with a stand for a soft collapsible tube having a rigid top with a bead-flange surrounding the top, the stand comprising a curved part of greater arc dimension than the tube, legs pivoted to said ring, said legs being in the form of open frames with opposite side portions and outward bent lower ends to provide feet, each of said frames having its side portions connected at the top by a curved section, and an accessory member having a depending rim fitted on the top of the tube, said rim gripping said sections against the tube beneath the top, just under said flange so that the stand is maintained in position to support the tube.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

FRANK WOLF.