April 15, 1930. R. F. REUBUSH 1,754,403

COLLAPSIBLE CONTAINER

Filed May 21, 1928

Fig. 1.

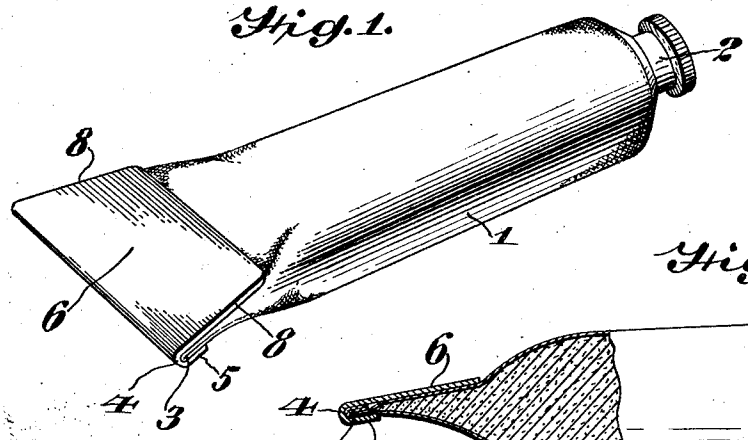


Fig. 2.

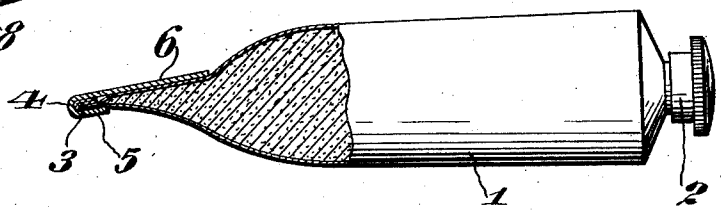


Fig. 3.

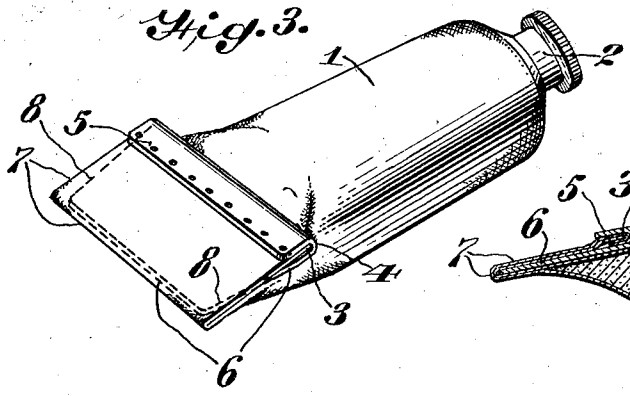


Fig. 4.

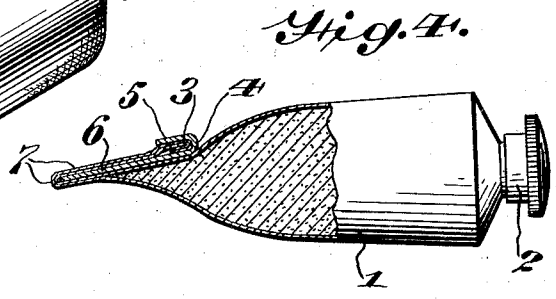


Fig. 5.

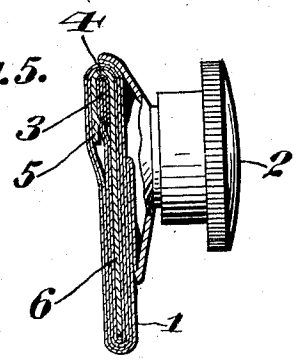
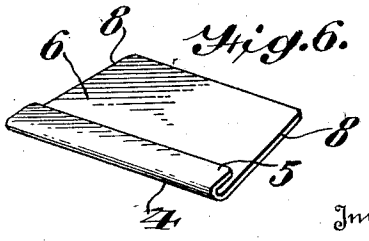


Fig. 6.



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Patented Apr. 15, 1930

1,754,403

UNITED STATES PATENT OFFICE

ROBERT F. REUBUSH, OF PHILADELPHIA, PENNSYLVANIA

COLLAPSIBLE CONTAINER

Application filed May 21, 1928. Serial No. 279,417.

My invention relates to collapsible containers, such as tubes, which are adapted to contain material in paste form such as tooth paste, shaving cream, paint and the like which may be expelled from time to time by pressure as it may be desired to use the same.

Generally the rear ends of these containers, that is the end which is to be compressed and collapsed for effecting discharge of material from the container, are closed without any idea of providing means whereby the collapsing thereof may be facilitated and without any idea of providing means whereby the neatness of the container as it is progressively collapsed during the progress of discharging the material for use may be conserved.

The general object of the invention is not only to provide means for closing the collapsible end of the container, which is in tubular form, but also to provide means for facilitating the collapsing of said end and to effect a progressive collapsing action of the tube as the material in paste or other suitable form is discharged.

It also is an object of the invention to provide closing means for the rear collapsible end of a tubular container which is provided with an extended portion which is adapted to receive pressure for effecting discharge of the material from the container and which also is adapted to provide means about which the collapsible portion of the container may be folded or wrapped.

From a practical standpoint other objects and advantages are incident to the invention, but I shall not here undertake to point out such other objects or advantages, but the same will be referred to or will become apparent during the detailed description of the invention which follows.

In order that the invention may be more readily understood and its practical advantages fully appreciated reference may be had to the accompanying drawing in which I have illustrated one form of convenient mechanical embodiment thereof.

In the drawing:

Fig. 1 is a view in perspective of a collapsible container provided with means embodying the invention.

Fig. 2 is a view partly in side elevation and partly in longitudinal section of the container shown in Fig. 1.

Fig. 3 is a view in perspective showing the container after a portion of the paste material has been discharged therefrom, the collapsed portion of the tube being folded as shown.

Fig. 4 is a view partly in side elevation and partly in longitudinal section of the container shown in Fig. 3 from which a portion of the paste material has been discharged.

Fig. 5 is a view in section showing the manner in which the collapsed container is folded when all of the paste material has been discharged therefrom.

Fig. 6 is a view in perspective of the combined fastening and collapsing device shown in the previous figures of the drawing.

In the drawing I have shown a collapsible container 1 of well known kind and type which is widely in use for containing tooth paste, soap paste and other like substances. The forward end of the container is provided with a nozzle having a discharge opening therethrough which is adapted to be closed by a cap 2 in known manner. The opposite or rear end of the container 1 may be folded as indicated at 3 and the fold permanently fastened by means of the clip portion 4 of the collapsing device. The side 5 of the said collapsing device is shown of a width slightly greater than the width of the fold 3. However, it may be of less width than shown, but preferably its width should not be less than the width of the said fold 3. The opposite side of the said device is extended as indicated at 6 so as to form a plate of considerable width which overlies a portion of the collapsible container adjoining the fold 3. When a tube is new and it is desired to cause the discharge of material from the container 1 the cap 2 is removed and pressure is then applied by applying finger and thumb pressure to the plate extension 6 and the opposite side portion of the said container. Such pressure causes movement of the plate 6 and the opposite side portion of the container toward each other which effects displacement of the interposed paste material which in turn causes

discharge of a desired portion of material through the opening at the front end of the container. The presence of the plate extension 6 retains the collapsed portion of the container in a smooth, flat, neat condition. When finally the opposing sides of the container opposite the plate extension 6 have been compressed so that all of the intervening paste material has been removed to permit the inner surfaces of the said sides to contact, the collapsed portion is then folded as indicated at 7 to inclose the plate extension 6 as shown in Figs. 3 and 4. The process of effecting discharge of the paste material from the container then continues as previously described and when the material between the portions of the opposing walls of the container within the region of the plate extension after it has been folded as shown in Figs. 3 and 4 has been removed the said extension with the portion of the collapsed tube infolding the same is again folded until finally the entire collapsed portion of the container is folded and wrapped around the said plate extension as shown in Fig. 5. Preferably the opposite edges of the plate extension 6 are tapered as indicated at 8 so that when it is folded within the folds of the collapsed container tube the said edges do not project but on the contrary extend within the edges of the folds, thereby contributing to neatness and sightliness.

The presence of the plate extension about which the collapsed tube is folded as described not only provides means whereby practically all of the paste material may be discharged from the container but also provides means whereby the folds may be evenly made so that as the discharge of the material progresses the partially filled container presents a neat and sightly appearance.

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

A collapsible container of the character described, comprising a clip infolding and clamping the edges of the rear end of the said container to close the same, one side of said clip being provided with an extension constituting a plate overlying an adjoining portion of the said container, the said plate and the opposing wall portion of the said container being adapted to be compressed to effect displacement of the material located therebetween and the said plate providing means about which the collapsed portion of the said container may be folded.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 17th day of May, A. D., 1928.

ROBERT F. REUBUSH.