

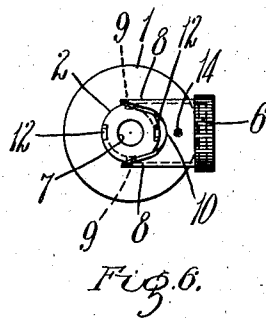
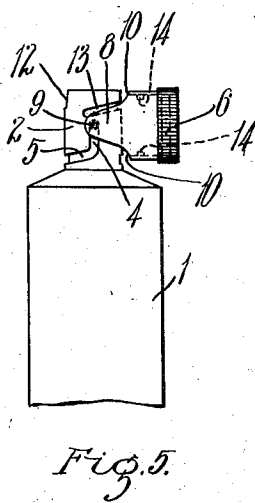
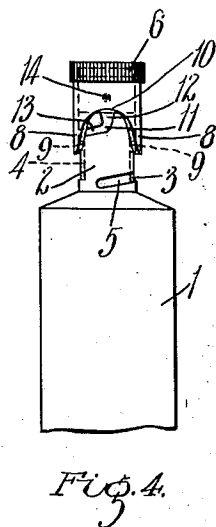
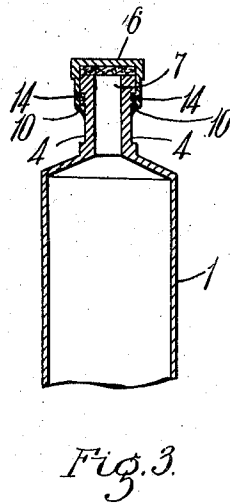
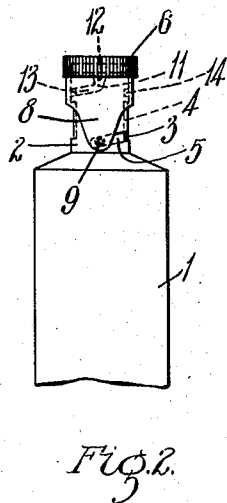
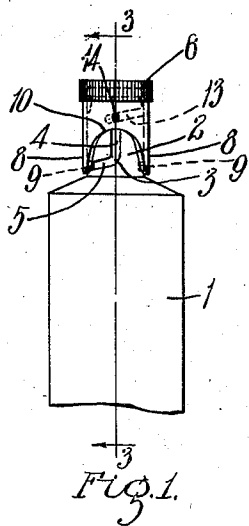
Nov. 2, 1926.

1,605,058

A. L. NICKERSON

CONTAINER

Filed Sept. 23, 1925



Inventor:
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by his att'y *Charles S. Gooding*

UNITED STATES PATENT OFFICE.

ALBERT L. NICKERSON, OF WALTHAM, MASSACHUSETTS.

CONTAINER.

Application filed September 23, 1925. Serial No. 58,068.

This invention relates to containers of the class known as collapsible tubes, and more particularly to a cap for said container and means for securing said cap to said container.

5 The object of the invention is to provide a container having a cap permanently attached thereto, said cap being so constructed and attached to the neck portion of the container that it may be quickly and easily
10 moved into a closed or open position without danger of becoming accidentally detached from said container and lost.

The container of this invention is an improvement over a container illustrated in a
15 previous patent granted to me, namely, No. 1,441,705, dated January 9, 1923, and is provided for the purpose of increasing the efficiency and tightening action of the cap, particularly when the device is constructed of
20 soft metal as is generally the case.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly as pointed out in the claims thereof.

25 Referring to the drawings:—

Figure 1 represents a front elevation of the upper portion of a container embodying my invention.

30 Fig. 2 is an elevation as viewed from the right of Fig. 1.

Fig. 3 is a longitudinal section taken on the line 3—3 of Fig. 1.

Fig. 4 is an elevation similar to Fig. 2 illustrating a cap in its uppermost position.

35 Fig. 5 is an elevation similar to Fig. 4 illustrating the cap tipped to a position to allow the contents of the container to be removed therefrom.

Fig. 6 is a plan view of Fig. 5.

40 Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 1 represents the main body portion of the container, preferably a collapsible tube formed of soft metal, although it should be understood that my invention is capable of being embodied in other types of containers where a suitable neck portion is provided. The container 1 is provided with a cylindrical neck portion 2
45 having grooves 3 upon opposite sides thereof, a portion 4 of said grooves extending longitudinally of said neck portion 2 and each of said grooves terminating at their lower ends in a helical portion 5 which
50 extends for a portion of the distance around the circumference of said neck. The upper

end of the longitudinal portion 4 of each groove 3 is closed and constitutes a stop to prevent the removal of a cap 6 from said neck. A passage 7 extends through the neck
55 portion 2, connecting with the interior of the container 1, said cap 6 being provided for the purpose of closing said passage.

The cap 6 is constructed of soft metal well known to those skilled in the art and is
60 adapted to closely fit the neck portion 2 of the container. The cap 6 is provided with two ears 8 on opposite sides thereof, said ears each having a projection 9 formed integral therewith and adapted to project
65 into the grooves 3. It is evident that in place of forming the projections 9 integral with the ears 8 that pins may be provided secured to said ears without departing from the spirit of this invention.
70 The lower edge of the cap 6 is cut away at 10 so that when the projections 9 are located at the upper extremities of the longitudinal portions 4 of the grooves 3 that said cap may pivot at the upper ends of said grooves
75 and be swung to the position illustrated in Figs. 5 and 6, at which time the passage 7 through the neck portion of the container is entirely open and the contents of the container may be removed therefrom in the
80 usual well known manner without danger of said cap interfering with the removal of said contents from said container, or without said cap becoming disengaged from said container.

85 That portion of the container hereinbefore described is old in the art, having been disclosed in the patent hereinbefore mentioned. To increase the efficiency and holding power of the cap 6 in order that the latter may
90 more tightly engage the upper extremity of the neck portion of the container when the passage 7 through the neck portion thereof is closed two other grooves 11 are provided upon opposite sides of said neck portion. A
95 portion 12 of the grooves 11 extends longitudinally of the neck portion 2 and intersects the upper extremity of said neck portion. The grooves 11 terminate at their lower ends in a helical portion 13 which
100 extends a portion of the distance around the circumference of said neck parallel with the helical portion 5 of the grooves 3. The longitudinal portion 12 of the groove 11 increases in width from the helical portion 13
105 upwardly in order to permit projections 14 formed integral with the body portion of the

cap 6 to easily enter said grooves. The longitudinal portions 12 of the grooves 11 are spaced upon the neck 2 midway between the longitudinal portions 4 of the grooves 3, while the projections 14 are spaced midway between the projections 9 upon the cap 6.

In closing the container, the cap 6 is moved to the position illustrated in Fig. 4 and then pushed downwardly until the projections 9 and 14 reach the bottoms of the longitudinal portions 4 and 12 of the grooves 3 and 11 respectively and said cap is then rotated, whereupon the projections 9 and 14 will engage the upper edges of the helical portions 5 and 13 of said grooves, thereby forcing the under surface of the cap 6 tightly against the top extremity of the neck 2 of said container, as illustrated in Figs. 1, 2 and 3, thereby tightly closing the passage 7.

The cap 6 is at all times attached to the neck portion 2 of the container 1 and said cap may be opened and closed as desired without danger of becoming separated from said container and becoming lost. In moving the cap 6 to its closed position, the projections 14 and grooves 11 co-operate with the projections 9 and grooves 3 in causing said cap to tightly engage the upper extremity of the neck 2 and thereby close the passage 7.

I claim:—

1. A container having, in combination, a neck portion provided with grooves formed upon the opposite sides thereof and closed at their upper ends, said grooves each comprising a portion extending longitudinally of said neck portion and a helical portion extending circumferentially around said neck portion, said neck portion also having other helical grooves opening to the upper extremity thereof, and a cap slidably mounted upon said neck portion and embodying therein ears having projections thereon

adapted to engage the helical portions of said first-mentioned grooves, said cap also having other projections thereon adapted to engage said second-mentioned grooves, all of said projections co-operating with the helical portions of their respective grooves to force said cap against the upper extremity of said neck portion, said first-mentioned projections also constituting pivots for said cap when said projections are located at the upper ends of the longitudinal portions of their respective grooves.

2. A container having, in combination, a neck portion provided with two pair of oppositely disposed grooves formed therein, each of said grooves comprising a portion extending longitudinally of said neck portion and a helical portion extending circumferentially around said neck portion, one pair of said grooves being closed at their upper ends and the other pair of said grooves being open at their upper ends and intersecting the upper extremity of said neck portion, and a cap slidably mounted upon said neck portion and embodying therein ears having projections thereon adapted to engage the helical portions of said closed ended grooves whereby said cap may be forced against the upper extremity of said neck portion, said projections also constituting pivots for said cap when located at the upper extremities of their respective grooves, said cap also having other projections formed thereon adapted to enter said open ended grooves and engage the helical portions thereof and co-operate with said first-mentioned projections in clamping said cap against the extremity of said neck portion.

In testimony whereof I have hereunto set my hand.

ALBERT L. NICKERSON.