Dec. 12, 1950 G. F. McLAUGHLIN 2,534,139

CLOSURE FOR DISPENSING TUBES AND THE LIKE

Filed April 30, 1947

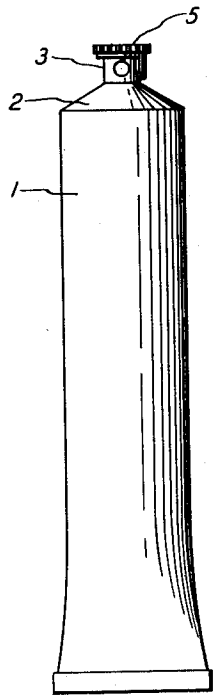


Fig. 1.

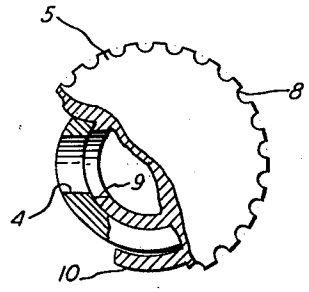


Fig. 2.

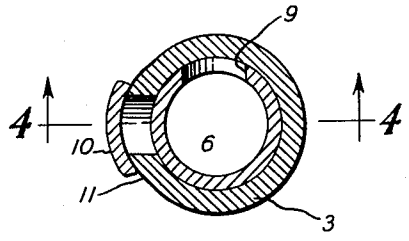


Fig. 3.

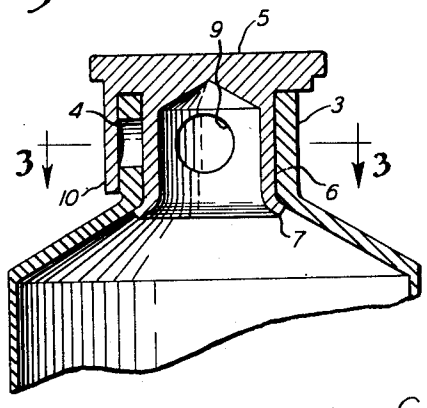


Fig. 4.

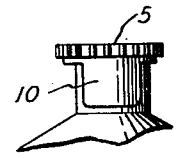


Fig. 5.

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Patented Dec. 12, 1950

2,534,139

UNITED STATES PATENT OFFICE

2,534,139

CLOSURE FOR DISPENSING TUBES AND THE LIKE

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Application April 30, 1947, Serial No. 745,005

1 Claim. (Cl. 222—545)

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This invention relates to closures for dispensing tubes, can tops, and the like.

An object of the invention is to provide a cap or closure which cannot be lost or removed from the dispenser to which it is attached, and one which is particularly adaptable to dispensing tubes made of soft metal or plastic.

A particular object of the invention is to provide a cap or closure of the referred to type which is adaptable to mass production methods of fabrication.

Another object of the invention is to provide a simplified construction for a cap or closure wherein a cam provides frictional engagement for maintaining the said cap in its closed position.

These and other objects will become apparent from the following description of the accompanying drawing of an exemplary form of the invention, wherein:

Figure 1 is an elevational view of a dispensing tube having a cap or closure embodying the features of the present invention.

Figure 2 is an enlarged broken plan view of the cap illustrated in Figure 1.

Figure 3 is a lateral sectional view of the cap taken on lines 3—3 of Figure 4.

Figure 4 is a vertical sectional view of the cap and a portion of the dispensing tube taken on lines 4—4 of Figure 3, and

Figure 5 is a broken elevational view of the cap in its closed position.

In the form of the invention shown, the numeral 1 designates a dispensing tube, such as used for tooth paste, shaving cream, and the like, and having an upper closed end 2, which in turn, is provided with an integral tubular neck 3. The neck 3 is provided with an annular opening 4 in its side for dispensing, as will be seen, the contents of the tube 1.

The invention includes a cap 5 having a concentric cylindrical portion 6 rotatably mounted within the neck 3 and flanged at its lower end, as at 7, so as to retain the said cap in place. The upper end of the cap 5 which is closed, is knurled, as at 8, wherby the said cap may be conveniently rotated.

Another opening 9 is provided in the cylindrical portion 6 of the cap 5, and which opening is located to register with the first described opening 4 in the neck 3.

The periphery of the cap 5 is provided with a depending shield 10 which extends substantially below the neck opening 4, and which, upon rotation of the said cap, closes the said opening.

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When in the last referred to position the opening 9 in the cylindrical portion of the cap 6 does not register with the neck 4 and is positioned substantially at a right angle with respect thereto.

As particularly shown in Figure 3, the neck 3 at its opening 4 is provided with a rise or cam 11 so as to provide frictional engagement between the shield 10 and the outer surface of the said neck. When the described closure arrangement is positioned with one opening 4 registering with the other opening 9, the shield 10 does not bind the neck 3.

In operation, the contents of the tube 1 are removed by aligning the described openings 2 and 9 and applying pressure to the body of the tube 1. When a sufficient quantity of the contents have been thus removed, the cap 5 is rotated to the closed position, illustrated in Figure 3, and by reason of the frictional engagement between the cam 11 and the shield 10, the described closure will remain in its closed position.

What is claimed is:

In a closure for a dispensing container, the combination of a neck integral with the said container, a cap having a hollow portion rotatably received within the said neck, an opening within the said hollow portion, a cam on the side of the said neck, an opening through the said cam for registering with the first named opening, a shield integral with the said cap for frictionally engaging the said cam, and a flange at the lower end of the said hollow portion for rotatably engaging the said neck.

GORDON F. McLAUGHLIN.

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