June 1, 1926.

1,586,781

O. B. CASE ET AL

RECEPTACLE CLOSURE

Filed Feb. 21, 1923

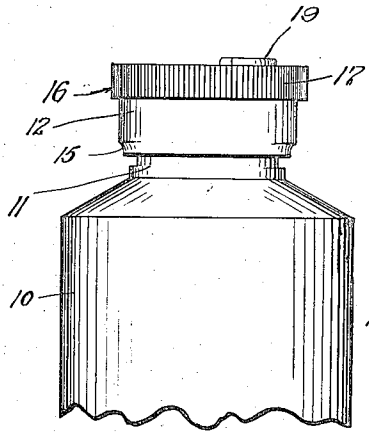


FIG. 1

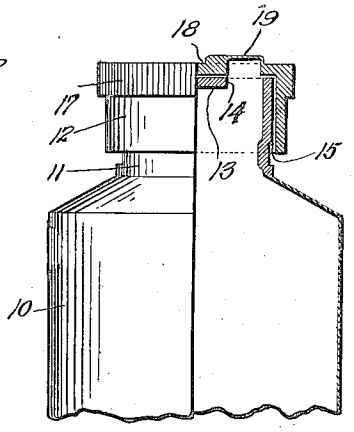


FIG. 2

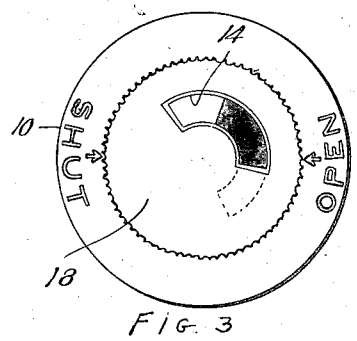


FIG. 3

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Patented June 1, 1926. 1,586,781

UNITED STATES PATENT OFFICE.

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RECEPTACLE CLOSURE.

Application filed February 21, 1923. Serial No. 620,482.

The invention relates to improvements in cap and end for collapsible tubes, and the objects of the improvement are,

First, to provide a cap which will not be removed while contents is being ejected from tubes;

Second, to eliminate the use of cork discs in caps;

Third, to eliminate threading neck of tube;

Fourth, to eliminate threading inside of cap; and

Fifth, to provide a cap, which, after placement on end of tube, will pass through all stages of manufacturing and filling, without readjustment or loss of cap, and without wasting contents of tube;

Sixth, to provide a cap which will prevent the accidental escape of the contents of a tube during storage and shipment prior to use, irrespective of the revoluble position of the cap upon the tube opening.

In the accompanying drawings illustrating one form of the device of our invention, similar parts are designated by similar numerals.

Figure 1 is a broken side-view of one form of the device of our invention.

Figure 2 is a broken side-view of the device of Figure 1, partly in section, before the cap is crimped in place.

Figure 3 is a top view of the device with the closure projection of the cap removed and the cap partially revolved to allow exit of tube contents.

The device illustrated in the accompanying drawings comprises a tube, or container 10 having the extended restricted neck 11 which is further extended into the enlarged neck top 12. Extending across the opening of the neck top 12 and fixedly attached thereto is a cover, or plate, 13 having an opening 14 therein. An annular recess 15 is within the neck 11. This portion of the device, therefore, comprises a tube, or container, having a restricted neck with a recess therein, the restricted neck being extended into an enlarged neck-top covered by a cover or plate having an opening therein.

A cap 16 having the downwardly extended annular side 17 turned, or crimped, into the recess 15 of the neck 11 is revoluble upon and around the neck top 12. The cap 16 has a top 18, a portion of which 19 is projected upwardly.

The cap projection 19 is of the same shape and size as is the opening 14 of the cover 13. We prefer to have the top 18 and the cap projection 19 of a thin metal in order that the cap projection 19 may be easily cut away from the top 18, thus forming an opening in the top 18.

It will be seen from the accompanying drawings and the explanation thereof that the device of our invention is a non-perforate closure means in its normal condition and that the contents of the tube can not escape through the cap in any position of its revolution and that, therefore, there will be no loss of contents during storage and shipment, even if the cap should be accidentally revolved. The value of this construction is evident over those in which the openings in the tube top and the cap are possible of accidental alignment.

In order to place our device in operative condition, it is simply necessary to cut away the cap projection 19, thus causing an opening in the cap capable of revoluble alignment with the opening 14 of the cover 13.

It will thus be seen that the device of our invention presents an economic and effective imperforate closure capable of easy conversion into an efficient perforate closure adaptable for the opening and closing of receptacles without removal therefrom.

While we have shown and described our device as adapted to one projection and opening, it is evident that a plurality of such projections and openings may be employed and that the neck top 12 may be a separate member fixedly attached to the neck 11.

We do not limit ourselves to the particular size, shape, number or arrangement of parts, as shown and described, as these are given simply as an example for the clear description of the device of our invention.

We claim:

1. In a closing device for receptacles, the combination of a receptacle having a fixed cover, an aperture in said fixed cover, a revoluble cap positioned over said fixed cover abutting upon the upper face of the fixed cover and having a recess therein and an integral projection on the upper face of said revoluble cap above said recess, the removal

of which will cause an aperture in the cap capable of revoluble alignment with the aperture of the cover.

2. In a closing device for receptacles, the combination of a receptacle having a fixed cover, an aperture in said fixed cover, a revoluble cap positioned over said fixed cover abutting upon the upper face of the fixed cover and having a recess therein and an integral projection on the upper face of said revoluble cap above said recess, the removal of which will cause an aperture in the cap capable of revoluble alignment with the aperture of the cover allowing egress of the container contents, the further revolution of the cap causing the two openings to be in non-alignment preventing egress of the container contents.

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