June 23, 1942. E. J. LEACH 2,287,625

NON-REMOVABLE CONTAINER CLOSURE

Filed June 19, 1941

Fig. 1.

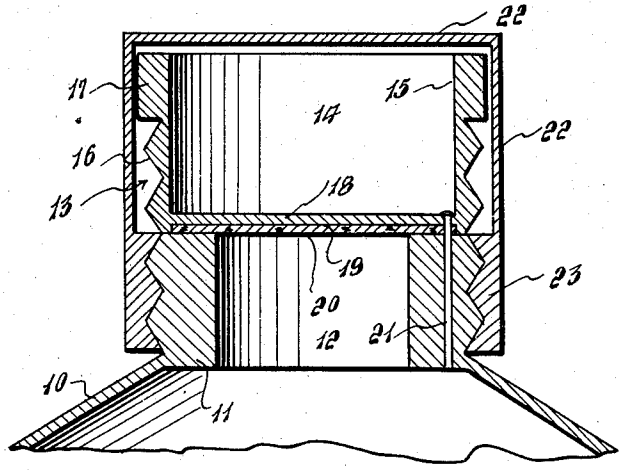
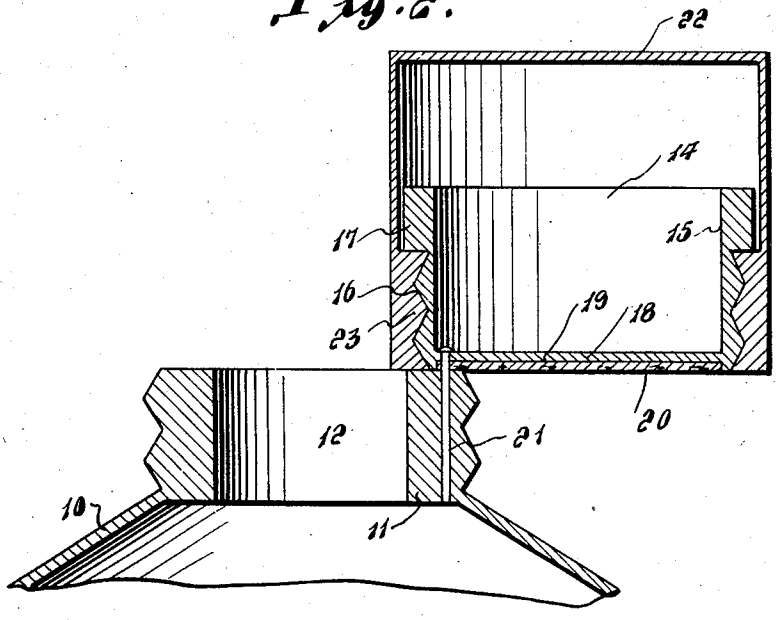


Fig. 2.



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NONREMOVABLE CONTAINER CLOSURE

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Application June 19, 1941, Serial No. 398,823

1 Claim. (Cl. 221—60)

This invention relates to a non-removable cap for the threaded necks of tubes, bottles and jars, and is especially adapted for use on paste tubes although equally applicable to other forms of containers having externally threaded dispensing necks.

It is a particular aim of the invention to provide a closure of the above mentioned type of simple construction that can be economically manufactured and readily applied to threaded necks of containers, when manufactured, to thereby provide such containers with a closure which cannot be removed from the container and which therefore cannot be lost.

Still a further aim of the invention is to provide a closure having a rotatably mounted cap which when disengaged from the container neck will be carried by another portion of the closure which is swingably connected to the container neck by means so arranged that the cap and other closure portion will swing in a plane parallel to the outer end of the container neck, to which the closure is attached.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates a preferred embodiment thereof, and wherein:

Figure 1 is a longitudinal, central sectional view of the closure applied to and in a closed position on an externally threaded container neck, and

Figure 2 is a similar view showing the closure in an open position.

Referring more particularly to the drawing, wherein like reference characters designate like or corresponding parts throughout the different views, 10 designates generally the upper portion of a container which is provided with a conventional externally threaded neck 11 having a bore or opening 12. The invention comprises a non-removable closure, designated generally 13 for the container neck 11.

The closure 13 includes a cup shaped member 14 having a relatively thick annular or cylindrical side wall 15, the lower portion of which is externally threaded as seen at 16, and which threaded portion is restricted in diameter to form an annular shoulder 17 at the upper portion of the annular wall 15. The cup shaped member 14 is provided with a relatively thin substantially flat bottom 18 and the annular wall 15 extends slightly therebelow to form the recess 19 therebeneath in which is secured a sealing disk 20 of cork or the like. The thickness of the neck 11 is substantially greater than the thickness of the threaded portion 16 so that the bottom 18 and disk 20 are substantially greater in diameter than the passage or opening 12 so that a substantial portion of the disk 20 will engage the outer end of the neck 11 when the cup shaped member 14 is in position thereon, as seen in Figure 1. A pin 21 extends loosely through the bottom 18 and the disk 20, adjacent a portion of the wall 15 and has its lower end anchored in the neck 11 and disposed longitudinally thereof. The pin 21 is provided with an upper headed end which engages the inner or upper side of the bottom 18 to retain the cup shaped member 14 in engagement therewith and to permit the cup shaped member 14 to be swung in a plane parallel to the end of the neck 11, from a position on the outer end of the neck 11, as seen in Figure 1, to a position projecting therefrom, as seen in Figure 2.

An inverted cup shaped cap 22 is thickened on its inner side and at its lower or outer end and said thickened portion is internally threaded as seen at 23. The threaded portion 23 is adapted to fit the threaded portion 16 and also the thread of the neck 11. The depth or length of the cap 22 is substantially greater than that of the cup shaped member 14 so that when the cup shaped member is in the position, as seen in Figure 1, the cap 22 can be rotated to move its threaded portion 23 out of engagement with the threaded portion 16 and into engagement with the thread of the neck 11 to thereby secure the closure 13 in a closed position, as seen in Figure 1. The cap 22 can be turned in the other direction for retracting it and for moving its threaded portion 23 into engagement with the threaded portion 16 and entirely out of engagement with the thread of the neck 11 and when thus positioned, as seen in Figure 2, the cap 22 is supported entirely by the cup shaped member 14 so that the cup shaped member 14, with the cap 22 carried thereby, can be swung to an open position, as in Figure 2 for exposing the opening or passage 12 so that the contents of the container 10 can be dispensed therethrough. The annular shoulder 17 forms an abutment to be engaged by the inner end of the threaded portion 23, when the cap 22 is fully retracted, as seen in Figure 2, to prevent removal of the cap 22 from the member 14.

The portion of the container 10, which is illustrated, preferably constitutes a part of a collapsible paste tube but it will be obvious that it could likewise constitute a part of a bottle or

jar or any other type of container having an externally threaded dispensing neck.

Various modifications and changes are contemplated and may obviously be resorted to provided they fall within the spirit and scope of the invention as hereinafter defined by the appended claim, as only a preferred embodiment of the invention is disclosed.

I claim as my invention:

A non-removable cap for containers having externally threaded necks comprising an upper externally threaded neck section, said upper neck section being cup-shaped and the thread thereof corresponding in diameter and pitch to the thread of the container neck, a pin extending through and turnably mounted in the bottom of the upper neck section, the lower end of the pin being anchored in the container neck for swingably connecting said upper neck section to the container neck so that the upper neck section will swing in a plane substantially at a right angle to the axis of the container neck, said pin having a head at its upper end in engagement with the upper side of said bottom to hold the bottom in engagement with the free end of the container neck, a cap having an internally threaded outer end for engaging the thread of the upper neck section, and said cap being turnable, when the upper neck section is alined with the container neck for advancing its threaded portion onto the thread of the container neck for holding the upper neck section in alinement with the container neck, and said cap, when retracted, being out of engagement with the container neck and supported solely by the upper neck section to swing therewith for exposing the bore of the container neck.

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