Nov. 7, 1950 J. W. SEIGH 2,529,424

PUSH ON CLOSURE CAP

Filed June 13, 1946

Fig.1.

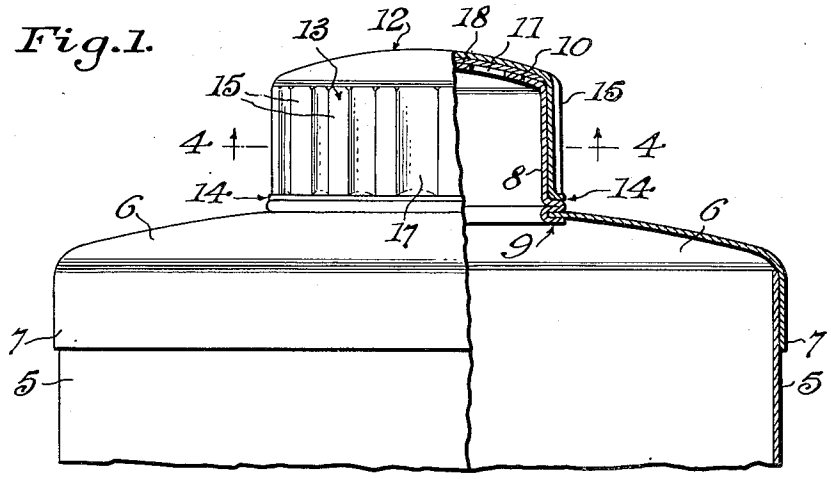


Fig.2.

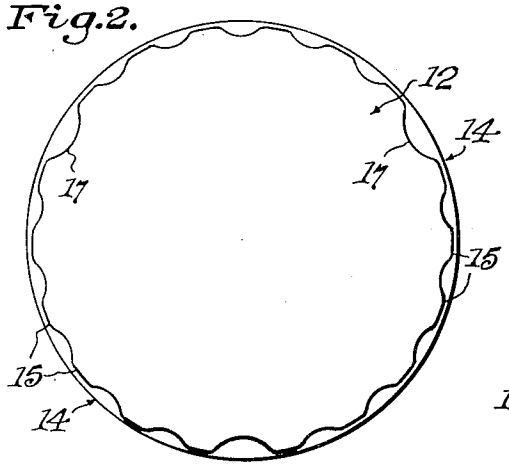
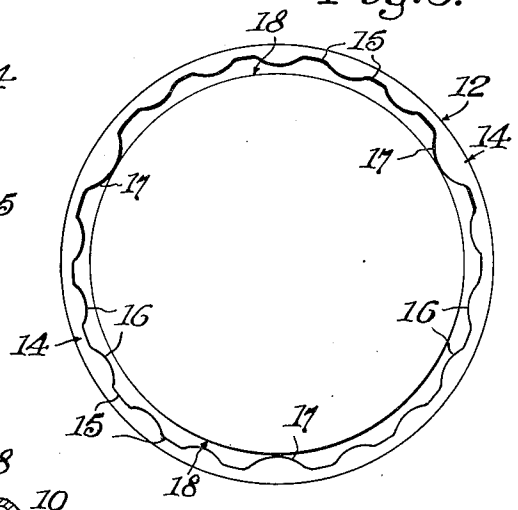


Fig.3.



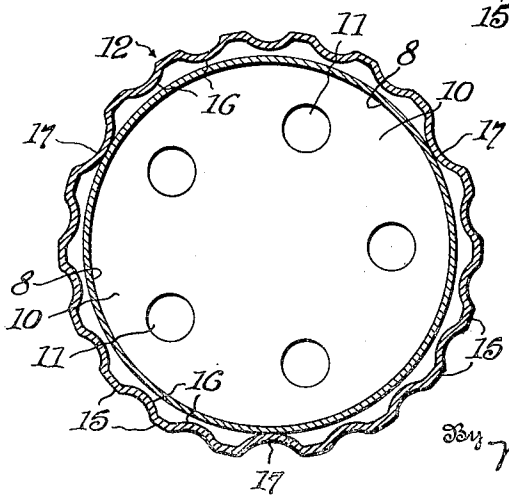


Fig.4.

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Patented Nov. 7, 1950 2,529,424

UNITED STATES PATENT OFFICE

2,529,424

PUSH ON CLOSURE CAP

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Application June 13, 1946, Serial No. 676,517

4 Claims. (Cl. 222—562)

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The invention relates generally to metallic receptacles, and more particularly to containers in which powder or other substance is packaged and which includes cylindrical dispensing necks each having one or more apertures through which the powder or other substance can be dispensed, and it primarily seeks to provide a novel form of frictionally retained closure of the push on type mountable on such dispensing necks.

In containers of the type referred to it is quite common to provide cylindriform dispensing necks and cylindriform closure caps dimensioned to frictionally fit said necks. It is somewhat difficult to provide just the right frictional fit of the closures and necks in such containers. If the fit is made snug, objectionable binding of the closures on the necks often must be contended with. If the fit is made relatively loose, the closure is likely to become inadvertently dislodged and lost, sometimes even before the container reaches the hand of the consumer, and often after the loosening incidental to normal use. Efforts have been made to avoid the difficulties referred to by providing longitudinal friction ribs on one or the other of the neck or closure elements for frictional engagement with the cylindrical surface of the companion element. These efforts have provided only partial solutions of the problems referred to. If the ribs are formed as widely spaced inward projections about an otherwise cylindrical closure cap they provide an unsightly external appearance of the cap. When the ribs are provided as widely spaced external projections about a cylindrical neck they sometimes indent the cylindrical closure cap in a manner providing loose fitting of the cover whenever the neck ribs come opposite said indentations during reapplications of the cap.

Therefore, it is an object of the present invention to provide a closure of the character stated, which is neat and attractive in appearance and can be manufactured at low cost, and which avoids all of the beforementioned difficulties.

In its more detailed nature the invention resides in providing a closure cap having a closure top or body portion and a depending, generally cylindriform skirt adapted to fit over the cylindrical neck of a dispensing container, said skirt being uprightly corrugated with some of the inwardly directed corrugations projecting inwardly a greater distance than the others to provide neck gripper ribs, thereby to provide for the desired frictional gripping of the container

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neck by the cap only at circumferentially spaced intervals and without detracting from the pleasing appearance externally of the cap skirt.

Another object of the invention is to provide an improved closure cap of the character stated in which the neck gripping ribs are spaced a considerable distance apart and formed to provide an illusory appearance of sameness in the corrugations at the exterior of the cap.

With the above and other objects in view that will hereinafter appear, the nature of the invention will be more clearly understood by reference to the following detailed description, the appended claims, and the several views illustrated in the accompanying drawings.

In the drawings:

Figure 1 is a side elevation illustrating a container portion with the improved closure cap mounted thereon, parts being broken away and in section.

Figure 2 is a plan view of the closure cap.

Figure 3 is an inverted plan view of the closure cap.

Figure 4 is an enlarged detail horizontal section taken on the line 4—4 on Figure 1.

In the example of embodiment of the invention herein disclosed, there is included a conventional container body 5 and the usual breast 6 which is attached to the body by a friction grip skirt 7. The breast includes the usual upstanding cylindrical dispensing neck 8 which is secured on the breast as at 9, and said neck has a closed top 10 which is provided with one or more dispensing apertures 11.

The improved closure cap includes a top or main body closure portion 12 and a depending skirt generally designated 13 and adapted to fit over the cylindrical neck 8 of the container. At its lower portion the cap skirt is provided with an outwardly turned uninterrupted lower edge 14 adapted to seat on the mounting bead by which the dispensing neck 8 is secured to the container breast 6.

The cap skirt generally designated 13 is uprightly corrugated to provide outwardly projecting corrguations or ribs 15 and inwardly projecting corrugations or ribs 16. It will be apparent by reference to Figure 4 of the drawing that certain of the inwardly directed corrugations or ribs 16, at widely spaced intervals about the circumference of the skirt, project inwardly a greater distance than the remaining corrugations so as to be disposed to frictionally contact the smooth cylindrical external surface of the dispensing neck 8 in the manner clearly illustrated

in Figure 4. In the particular disclosure herein made, the dispensing neck gripping corrugations or ribs 17 are three in number and are spaced 120° apart about the circumference of the closure cap skirt. It is to be understood, however, that the dispensing neck gripping corrugations or ribs may be spaced apart a greater or lesser distance than is specifically illustrated herein.

If desired, the closure cap may be provided with a disk filler 18 for engaging over the dispensing apertures 11 in the top of the dispensing neck.

While the dispensing neck 8 and the closure cap skirt are shown cylindrical in shape in this disclosure, it is to be understood that the invention is not limited to any particular general shaping of the neck and skirt, and other shapes may be provided, if desired. For example, the dispensing neck 8 and closure can skirt 13 may be made generally oval in horizontal cross section, if desired.

By merging the lower extremities of the corrugations 15, 16 into the uninterrupted, outwardly turned edge 14 of the closure cap skirt, the appearance of the closure cap is enhanced, and the mounting of the cap on the neck is facilitated. It will also be apparent that the making of certain individual corrugations at widely spaced intervals slightly deeper than the remainder of the corrugations does not render said deeper, dispensing neck gripping corrugations dissimilar in appearance from the other corrugations, and hence an illusory appearance of sameness in the corrugations at the exterior of the closure cap is provided.

While one form of the invention has been shown for purposes of illustration, it is to be clearly understood that various changes in the details of construction and arrangement of parts may be made without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. In a dispensing container, a dispensing neck having a smooth external closure cap receiving surface and a top portion equipped with at least one dispensing aperture, and a closure cap having a closure body portion for closing over the dispensing aperture, and a depending skirt shaped to fit over the dispensing neck and uprightly corrugated with at least three spaced corrugations projecting inwardly far enough to frictionally grip the external surface of the dispensing neck, and at least three other corrugations intervening the first named corrugations and spaced from said surface serving to provide inherent yielding quality in the skirt without readily perceptible distortion.

2. In a dispensing container, a dispensing neck having a smooth external closure cap receiving surface and a top portion equipped with at least one dispensing aperture, and a closure cap having a closure body portion for closing over the dispensing aperture, and a depending skirt shaped to fit over the dispensing neck and uprightly corrugated with at least three corrugations spaced equidistantly about said skirt and projecting inwardly far enough to frictionally grip the external surface of the dispensing neck, and at least two other corrugations intervening each two of said equidistantly spaced corrugations and spaced from said surface serving to provide inherent yielding quality in the skirt without readily perceptible distortion.

3. A closure cap of the push on type mountable on and adapted to be frictionally retained upon the dispensing neck of a container and comprising a top closure body portion, and a depending skirt shaped to fit over a dispensing neck and uprightly corrugated with at least three corrugations projecting inwardly far enough to frictionally grip the external surface of a dispensing neck, and at least three other corrugations intervening the first named corrugations and projecting inwardly a lesser distance than said first named corrugations to provide inherent yielding quality in the skirt without readily perceptible distortion.

4. A closure cap of the push on type mountable on and adapted to be frictionally retained upon the dispensing neck of a container and comprising a top closure body portion, and a depending skirt shaped to fit over a dispensing neck and uprightly corrugated with at least three corrugations spaced equidistantly about said skirt and projecting inwardly far enough to frictionally grip the external surface of a dispensing neck, and at least two other corrugations intervening each two of said equidistantly spaced corrugations and projecting inwardly a lesser distance than said first named corrugations to provide inherent yielding quality in the skirt without readily perceptible distortion.

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