

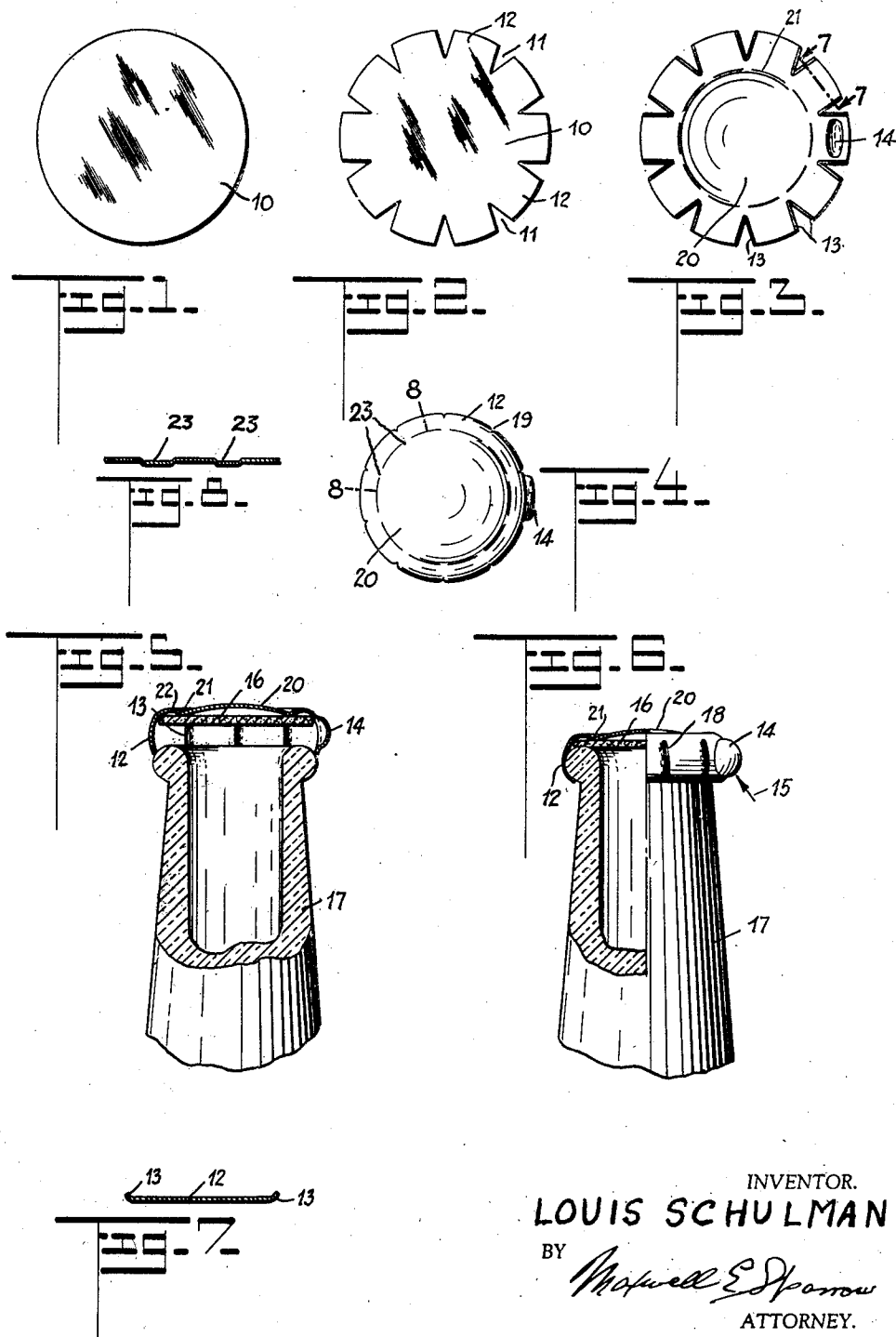
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CONTAINER CAP

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CONTAINER CAP

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5 Claims. (Cl. 215—38)

This invention relates to closure caps for bottles and certain types of containers.

An object of this invention is to provide an improved bottle or container cap, which can be easily removed by hand after having been securely applied by hand or machinery.

Another object of this invention is to provide a bottle or container cap with gripping fingers of a special construction which will augment the resiliency of the gripping fingers, thereby making the bottle cap more air and liquid tight.

A further object of this invention is to provide in a bottle cap, means for reinforcing and increasing the strength of said gripping fingers.

Another object of this invention is to provide a bottle or container cap, which will not have any protruding sharp edges, thereby making the bottle easier to be handled.

These and other objects will more fully appear from the following specification and drawing attached hereto, while for illustration purposes a certain embodiment has been shown in the accompanying drawing; it is understood, however, that the invention is not limited to the specific construction shown, but that, without deviating from the objects of the invention, certain modifications are possible.

In the drawing:

Fig. 1 is a blank from which a container cap is manufactured.

Fig. 2 is this blank in its next step with V-shaped cut-outs for creating the gripping fingers.

Fig. 3 is still another step in the manufacture with center portion depressed and the edges of the gripping fingers raised.

Fig. 4 is a top view of a cap ready for application.

Fig. 5 is a view, partially in section, showing the cap before application.

Fig. 6 is a similar view as Fig. 5, with cap applied.

Fig. 7 is an enlarged sectional view along lines 7—7 of Fig. 3.

Fig. 8 is an enlarged sectional view taken along lines 8—8 of Figure 4.

Like numerals refer to like parts throughout the specification. The numeral 10 represents the blank out of which V-shaped notches 11 have been cut, dividing the peripheral portion of the blank into a plurality of radial, locking or gripping fingers 12 for the cap. The edges of said gripping fingers 12 are bent angularly with relation to the blank as shown at 13 thereby reinforcing these gripping fingers.

As shown in Fig. 3, the edges 13 of the fingers

12 are bent upward during the formation of the cap, so that when the cap is completed, the edges 13 protrude inwardly as shown in Fig. 7, that is both side edges of the fingers are bent at an angle to the surface of the finger.

The numeral 14 represents a bulged-out portion in one of the gripping fingers to permit the easy removal of the cap by pressure with the fingers in the direction of arrow 15.

The numeral 16 represents a packing disc of the usual construction which presses against the top of the neck of bottle 17. It is evident, that in the finished cap, the locking or gripping fingers 13 form the skirt or depending flange of the cap, the V-shaped cuts 11 appearing as straight lines 18, with the edges of the fingers apparently bevelled inwardly at 19. The construction of this cap will permit ready re-application of the same to the bottle a number of times by exerting a slight pressure on the top after having placed the same on the top of bottle.

The blank shown in Fig. 2 is pressed to form the raised central or body portion 20 of moderately convex form, terminating in a shallow annular channel 21 which produces an internal convex marginal bead 22 to overlies the bottle rim. As will be observed the depression is slightly deeper in several parts of the channel as shown at 23, that is, the bottom of the channel is circumferentially uneven, or of irregular contour so that in the event there is an uneven surface on the bottle or vial, the deeper portions of the channel will press tightly against or will imbed in the packing disc 16, thereby giving a more perfect closure.

The raised center portion 20 adds to the stiffness of the cap. It is to be observed that the bulge 14 is in a direction opposite to the direction in which the edges or ridges 13 are bent.

The ridges or intumed edges 13 add to the stiffness of the fingers 12 and facilitate the fingers being resiliently but tightly clamped around the neck of the container.

It is believed from the above description that no difficulty will be encountered in understanding the construction, the method of use and operation of the device herein disclosed. The invention is of simple and practical construction and is adapted to accomplish among others all of the objects and advantages herein set forth.

Having thus described this invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A container cap made from a circular blank of sheet metal having V-shaped notches divid-

ing the peripheral portion of the blank into sections bent downwardly with respect to the blank to provide gripping fingers for the cap, both side edges of each finger being bent inwardly at an angle to the surface of the finger, and a bulged portion in one of the fingers, said blank having a raised center portion.

2. A container cap made from a blank of sheet metal having V-shaped notches dividing the peripheral portion of the blank into sections bent downwardly with respect to the blank to provide locking fingers for the cap, both side edges of each finger being bent inwardly at an angle to the surface of the finger.

3. A container cap made from a circular blank having V-shaped notches dividing the peripheral portion of the blank into sections bent downwardly with respect to the blank to provide gripping fingers for the cap, the lateral edges of each finger being bent inwardly at an angle to

the surface of the finger, one of said fingers having a bulged portion, the bulge being in a direction opposite to the direction in which the edges of the fingers are bent.

4. A container cap made from a circular blank, said blank being notched dividing the peripheral portion of the blank into sections bent downwardly with respect to the blank to provide gripping fingers for the cap, both side edges of each finger being bent inwardly at an angle to the surface of the finger to provide inturned flanges for the cap.

5. A container cap comprising a single blank and having downwardly-extending gripping fingers, each of said fingers being provided with side edges bent inwardly at an angle to the surface of the finger adapted to engage the container.

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