May 23, 1961 W. L. GILL 2,985,044

REMOVER FOR JAR AND BOTTLE CAPS

Filed June 23, 1958

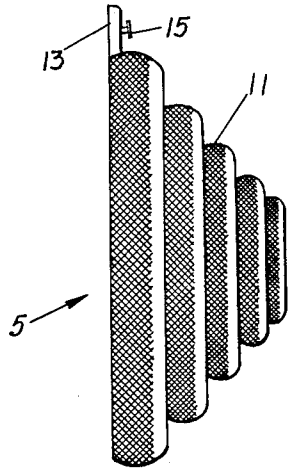


FIG. 1.

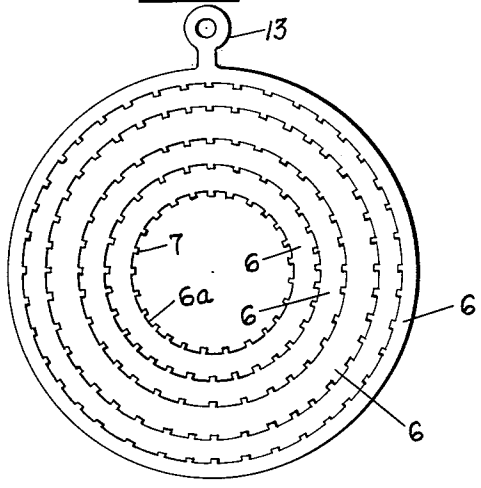


FIG. 2.

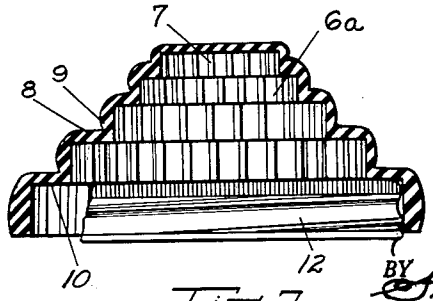


FIG. 3.

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REMOVER FOR JAR AND BOTTLE CAPS

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3 Claims. (Cl. 81—3.4)

This invention relates to jar and bottle cap removers. It has for its object to provide a simple and inexpensive article, adapted to be gripped in the palm of the hand and provided with a plurality of internal surfaces adapted to grip jar and bottle caps of many different diameters.

The device of the invention will be best understood by a consideration of the accompanying drawing wherein:

Fig. 1 is a view showing the jar cap remover in side elevation and hanging upon a nail. This is its position when not in use;

Fig. 2 is a face view looking into the interior of the cap remover; and

Fig. 3 is a vertical sectional view, with the cap remover disposed in the position of use.

Like numerals designate corresponding parts in all of the figures of the drawing.

The cap remover is composed of a single and unitary body **5** of a relatively soft rubber-like material. It is shaped to be gripped in the palm of the hand and to be deformed by the grip of the user to bring novel gripping elements upon the interior of the body into secure gripping engagement with a jar or bottle cap that is to be removed. The body **5** is of a hollow, frusto conical form. In manufacture the body is molded to present upon its interior surface a plurality of concentric stepped rings **6** of varying diameters. These rings present vertical walls **6***a* which carry integral rubber teeth **7**. Said teeth have relatively sharp corners. The body **5** is of stepped formation upon its outer side, the vertical tooth carrying walls (Fig. 3) constituting the inner faces of the stepped formations. These stepped portions comprise the horizontal walls **8** and the connecting walls **9**. The inner or under faces of the horizontal walls present ledges **10** at the juncture of the step portions of varying diameters, these ledges constituting stops for the remover, upon jar caps of varying diameters. Thus, in use, a jar will enter the body **5** until its movement thereinto is arrested by contact of its cap with that stop ledge **10** that is associated with the teeth **7** on that ring **6** which most closely conforms in diameter to the cap that is to be removed. The exterior surfaces of walls **9** may be roughened or knurled as at **11** to provide a better grip for the tips of the fingers and thumb of the user when the remover is gripped in the palm of the hand and the teeth **7** are squeezed into engagement with a jar cap, such as is indicated at **12**. If desired the outer faces of the connecting walls **9** may be slightly bulged to provide more material to be gripped by the user, whereby to get a more forcible grip upon the cap to be removed. The outward bulging of walls **9** not only provides more material to be compressed but the distances from bottom to top of these bowed walls is increased thus providing more finger grasp area.

An integral rubber member of eyeletted or loop formation **13** provides means by which the remover may be hung upon a nail or hook **15**, in the kitchen, when not in use.

It will be seen that the remover of this invention comprises an integral rubber body of cone-like formation, adapted to be gripped in the palm of the hand and squeezed forcibly into engagement with a jar or bottle cap that is to be removed. It will also be seen that upon its interior face said body presents a plurality of vertical toothed walls and that each of these toothed walls represents an interior face that is directly backed by an external finger and thumb receiving portion by which the teeth may be forcibly engaged with a jar cap. These finger and thumb receiving portions extend circumferentially entirely around the compressible body. This one piece, molded, collapsible, kitchen appliance provides an exceedingly simple and economical article for effecting the removal of jar and bottle caps of many different sizes.

It is to be noted that the described arrangement brings into engagement with the jar caps a plurality of rubber teeth which are disposed axially of the jar cap. When a number of such teeth are forced into engagement with the cap they provide a very secure engagement between the remover and the jar cap.

The described arrangement of a plurality of toothed, concentric rings around the inner face of a hollow, substantially cone-like body, is of utility whether the exterior of said body be stepped or not. However, the stepping to disposed a finger and thumb grasp portion directly back of each circumferential row of teeth, increases the grip which the user may exert upon the cap. The effectiveness of the grip is further increased by increasing the thickness of the material to produce the bulging of the material opposite each internal row of teeth, because these bulges provide increased areas of gripping surfaces as well as increased amounts of material to be compressed. The provision of a plurality of toothed ring-like gripping elements each of a different diameter results in providing gripping surfaces which closely approximate the diameter of the bottle or jar cap that is to be engaged and removed, before there is any compression of the remover by the user. Thus only little flexing of the material has to take place before engagement between jar cap and remover takes place. I am thus able to use a stiffer and stronger rubber in the manufacture of my device than would be the case if a cap engaging element had to be flexed to an extent to permit it to engage caps of many different diameters.

It is to be understood that the invention is not limited to the precise construction set forth but that it includes within its purview whatever changes fairly fall within either the terms or the spirit of the appended claims.

I claim:

1. A jar cap remover comprising a one piece body of a rubber-like compressible material dimensioned to be gripped, as a whole, in the hand of the user and shaped to form a plurality of superimposed concentric circular ring-like portions of varying diameters, each of which rings presents a substantially vertical inner face wall, substantially horizontal connecting portions between the several rings which constitute stop ledges, said ledges limiting the entry of jars and their caps into the one piece body, to position the cap to be removed within that ring which most closely approximates the diameter of the said cap, the several rings being separated from each other by said horizontal portions and the exterior faces of the several rings lying from top to bottom in such general parallelism with the axis of the one piece body, that said exterior faces of the rings may be separately gripped by the user and any ring may be individually compressed to force its inner wall into engagement with said cap.

2. A structure as recited in claim 1 wherein said inner face walls carry circular rows of substantially vertical teeth, extending therearound.

3. A structure as recited in claim 1 wherein the exterior faces of the several rings are bowed slightly out-

ward, to form bulging portions which extend circumferentially entirely around the said one piece body.

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