Sept. 9, 1969 C. A. RICHIE 3,465,910

CONTAINER CLOSURE HAVING INTEGRAL STRIP OPENING MEANS

Filed Oct. 2, 1967

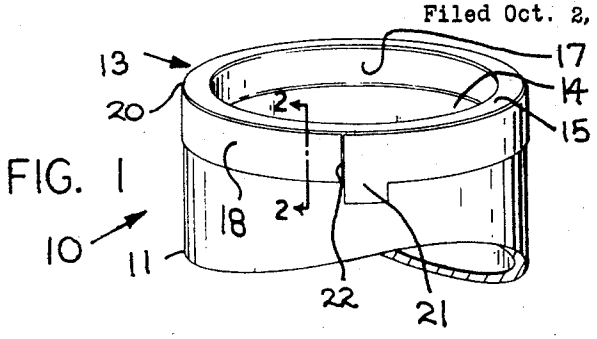


FIG. 1

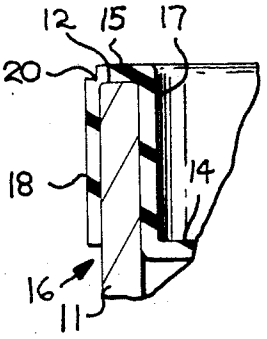


FIG. 2

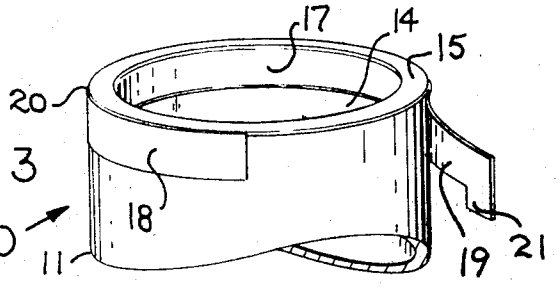


FIG. 3

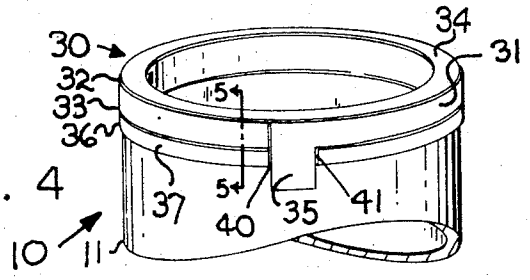


FIG. 4

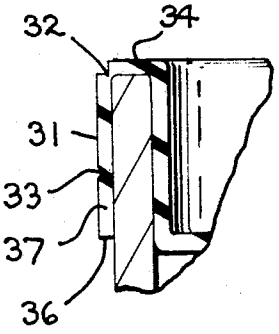


FIG. 5

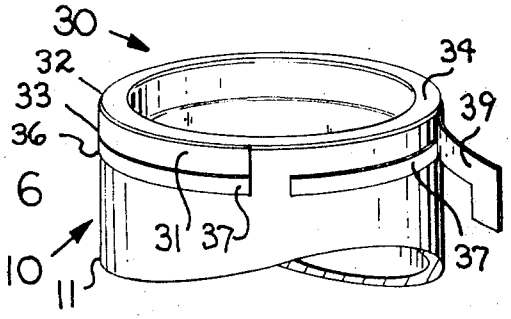


FIG. 6

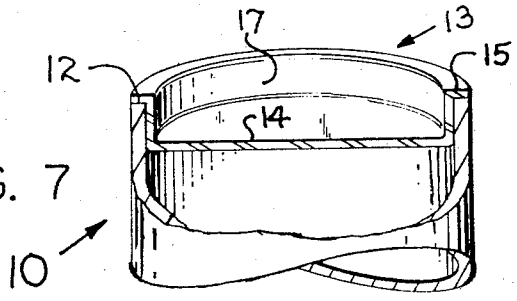


FIG. 7

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CONTAINER CLOSURE HAVING INTEGRAL STRIP OPENING MEANS

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Int. Cl. B65d 17/20
U.S. Cl. 220—54 2 Claims

ABSTRACT OF THE DISCLOSURE

A novel closure for open-mouth container comprising a top panel and a depending attaching skirt which skirt is provided with a removable tear strip.

This invention pertains to a closure for containers. More particularly, this invention relates to an easily removable closure for open-mouth containers.

In modern packaging, occasions arise in the utilization of open-mouth containers where it is desirable to have a reclosable and yet easily removable closure. This is particularly true in the case of convenience food products that are packaged in metal-fibre composite cans.

Presently available container closures often consist of a metal cap which is pressed onto the open-mouth can body to effect the closure. This type of closure requires the use of a tool to remove the closure from the can body. As a result, the closure is usually deformed on removal and satisfactory reclosure is not practical.

Another frequently used container closure has internal screw threads and is screwed onto a receptacle. This type of closure is expensive and somewhat inconvenient to manipulate. Additionally, it is impractical to form large, screw-thread openings in metal-fibre composite cans.

Recently, plastic closures employing removable tear strips have been developed, and to a certain extent have attained commercial acceptance. It has been found however, that difficulties often arise with respect to the design and placement of the tear strip, and problems in removing and reclosing the package are frequently encountered.

Accordingly, it is an object of the present invention to provide a closure for an open-mouth container which can be opened with a minimum of effort.

Another object is to provide a container closure that can be simply and inexpensively manufactured.

A further object is to provide a novel tear tab plastic closure for open-mouth metal-fibre composite cans.

In attaining the objects, one feature resided in providing a novel container closure, preferably comprised of plastic, which includes a top panel and depending attaching skirt portion, the latter being provided with a removable tear strip.

The above and other objects, features and advantages will become apparent from the following description and drawings wherein:

FIG. 1 is a perspective view of one embodiment of a closure according to the present invention.

FIG. 2 is a sectional view of the closure of FIG. 1 taken along line 2—2.

FIG. 3 is a view similar to FIG. 1, showing the tear strip partially removed.

FIG. 4 is a perspective view of another embodiment of the closure of the present invention.

FIG. 5 is a sectional view of the closure shown in FIG. 4 along line 5—5.

FIG. 6 is a view similar to FIG. 4 showing the tear strip partially removed.

FIG. 7 is a sectional view of the closure of FIG. 6 after the tear strip has been removed.

Referring now to FIGS. 1, 2, 3 and 7, a cylindrical

container 10 of plastic, fibre, metal, glass, fibre-metal composite, or any other suitable material, is shown having side walls 11 terminating at their upper edge in a finish or top edge portion 12.

A closure 13 of plastic or any other suitable material is formed with a recessed circular central panel 14 which projects within the open upper end of the container 10.

The central panel is bounded by a raised annular rim 15 which forms a downwardly open trough or channel 16 for receiving the top edge portion or finish 12 of the container 10. A depending wall 17, connects the rim 15 with the central panel 14. A depending vertical skirt 18 projects downwardly from rim 15, snugly engaging the exterior side walls 11 of the container.

Skirt 18 is exteriorly provided with an annular circumferential score line or notch 20 which is located directly adjacent to the annular rim 15 of the closure. The score line 20 extends completely around the skirt 18 so that the skirt is completely severable from the closure. A vertical score line 22 exteriorly extends vertically on skirt 18 and terminates at annular score line 20 to allow complete removal of the skirt in the form of a tear strip 19. A projecting tear tab 21 is provided adjacent vertical score line 22 to facilitate the removal of the tear strip 19 from the closure.

The score line or notch 20 coincides with the upper surface of the finish 12 so that when the strip is removed, the closure rim 15 is coextensive with the container finish 12 as shown in FIG. 7. This design permits a reclosure of the container after removal of the tear strip. When reclosure is desired, the closure is pushed onto the container until the rim 15 contacts the container finish 12. This results in a neat, tight closure which does not extend circumferentially beyond the maximum container diameter.

FIGS. 4, 5 and 6 illustrate another embodiment of the present invention similar to the embodiment illustrated in FIGS. 1, 2, 3 and 7 except that the closure 30 is provided with a skirt 31 having a pair of annular, spaced score lines 32 and 33 defining a tear strip 39 therebetween. The upper score line or notch 32 is located directly adjacent to the annular rim 34 and extends circumferentially around the skirt 31 so that the skirt is completely severable from the closure.

The lower score line 33, located between the upper score line 32 and the lower edge 36 of the skirt, defines a sealing flange 37. Sealing flange 37 is adhesively sealed to the exterior of the container to retain the contents in sealed or airtight condition prior to use. Skirt 31 is provided with two spaced vertical score lines 40 and 41 defining tear tab 35 therebetween. Vertical score line 40 intersects lower annular score line 33 and terminates at upper annular score line 32, while vertical score line 41 terminates at lower annular score line 33.

When access to the container is desired, the tear tab 35 is pulled and the tear strip 39 is torn in an annular direction. The tearing starts at one end of the tear strip as defined by vertical score line 40 and continues annularly around the closure back to score line 40. Tear strip 39 is thus removed from the closure and sealing flange 37 remains sealed to the container.

From the foregoing, it is apparent that this invention provides an improved closure of practical utility and commercial importance.

It will, of course, be understood that various details may be varied without departing from this invention and it is therefore intended that obvious departures and modifications be embraced by the following claims.

What is claimed is:

1. A plastic container closure comprising,
a circular central panel,

an inverted U-shaped annular member bounding said central panel and forming a downwardly open channel for receiving the finish of the container,

an external score line extending about the total circumference of said member, said score line being formed as a notch extending toward the outer, upper edge of the finish of said container,

and a vertically extending score line on said member intersecting said external score line to define a tear strip, said tear strip having a vertically extending tab for facilitating the easy removal of said closure from the container whereby the portion of said annular member remaining after the removal of said tear strip is diametrically coextensive with the outer, upper edge of the finish of said container.

2. A closure for open mouth containers comprising,

a central circular panel,

an inverted U-shaped annular member bounding said central panel and forming a downwardly open channel for receiving the finish of said container,

a pair of spaced external score lines extending about the total circumference of said member defining a tear strip therebetween, the uppermost of said pair of score lines being formed as a notch extending toward the outer, upper edge of the finish of said container,

and two vertically extending score lines on said member, one of said vertical score lines intersecting both of said spaced external score lines and the other of said vertical score lines intersecting only the lower external score line to define a vertical tab for facilitating removal of said tear strip from said closure whereby the portion of said member remaining after removal of said tear strip is diametrically coextensive with the outer, upper edge of the finish of said container.

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GEORGE T. HALL, Primary Examiner

U.S. Cl. X.R.

215—46; 229—51