Aug. 8, 1944. G. W. REESE 2,355,108

CONTAINER

Filed Sept. 4, 1940

Fig 1

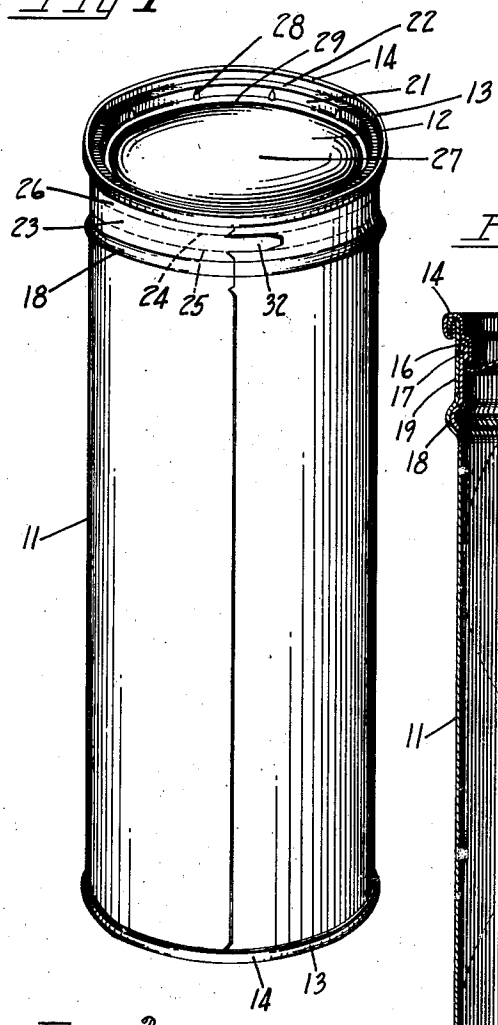


Fig 2

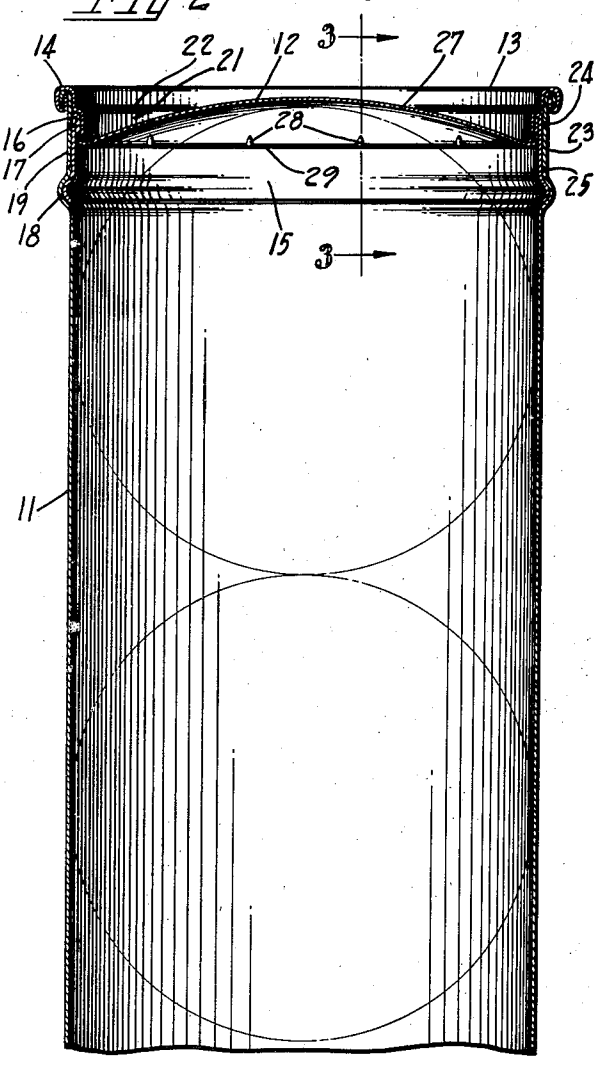
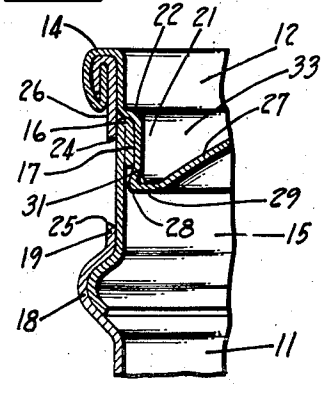


Fig 3



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CONTAINER

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1 Claim. (Cl. 220—54)

This invention relates to containers or cans of the interior collar type having a tearing strip set off in the body wall which is adapted to be severed from the body immediately beneath the top, the removal of which leaves a countersunk cover thereafter serving as a temporary reclosure which fits upon a hemmed collar secured within the upper part of the body.

The invention particularly contemplates the provision of a metallic container for the storing and preserving of uniform sized objects such for example as tennis balls, which because of the internal pressure of their inflated nature must be packed in pressure retaining receptacles in order to equalize such pressure and prevent the deterioration of the balls.

An object of the invention is the provision of a tearing strip container or can of the internal collar variety specifically adapted to the packaging of uniform size articles under pressure, the internal collar being so arranged within the container that it provides a substantially flush and uniform internal size so that the articles contained therein may be readily removed when the container is opened.

Another object of the invention is the provision of an internal collar type can having a tearing strip for opening the container which is located adjacent the top end and inside of the internal collar so that when the tearing strip is removed a smooth hemmed edge is exposed at the top of the opened can which eliminates all danger of cutting the hands of the user, such an opened can being adapted for reclosure by a countersunk snap cover produced in the opening of the can.

A further object of the invention is the provision of such a container or can for the preservation of solid, uniformly sized articles having an internal flush wall of such dimensions as substantially to embrace the can contents of a predetermined number of articles to prevent the articles from shifting within the container and to reduce all unnecessary air space.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a perspective view of a preferred embodiment of the invention showing a closed container;

Fig. 2 is an enlarged sectional view partly broken away as taken along a vertical plane passed through the center of the closed container of Fig. 1; and

Fig. 3 is a still further enlarged sectional detail taken substantially along the line 3—3 in Fig. 2 and showing a reclosed can after the tearing strip has been removed.

As a preferred embodiment of the invention there is shown in the drawing a sheet metal can comprising a tubular body 11 having a top end or cover 12 and a bottom end 13 which are secured to the body by double seams 14. Inside the body 11 (Figs. 2 and 3) adjacent the top end, there is disposed a narrow comparatively flat collar 15 having a smooth upper rim or hemmed edge 16 produced by an inwardly turned annular flange 17. The collar 15 is preferably secured in place within the container body in an annular bead 18 forming an inner groove into which the lower marginal edge of the collar is frictionally fitted.

The can body 11 is preferably necked outwardly above the bead 18 a distance substantially equal to the thickness of the collar 15 thus forming an enlarged annular body section or expanded area 19. This outward necking of the body brings the inner surface of the collar substantially flush with the inner surface of the major wall part of the body 11.

The annular flange 17 extends inwardly a slight amount and reduces the opening of the container just the double thickness of the material. This reduction however is not sufficient to interfere with the withdrawal of articles from the container. The inner surface of the collar flange 17 (Fig. 3) presents a smooth friction surface inside of which a depending wall 21 of the countersunk end 12 engages. The wall 21 is offset inwardly as at 22 by an inwardly merging wall portion which provides a shoulder or stop resting against the hemmed edge 16 of the collar in the closed can as best shown in Fig. 3. This construction also provides a friction plug reclosure for the opened container when a tearing strip 23 (Fig. 1) is removed in opening the can.

The tearing strip 23 (Fig. 1) is set off by two parallel score lines 24 and 25 formed in the outwardly necked area 19 of the body 11 and is positioned relatively close to the upper double end seam joint 14. This leaves a narrow body portion 26 attached to the end 12 upon the removal of the tearing strip 23 in opening the can. The raw edge of the severed body portion 26 is shielded by the wall 21 formed on the countersunk end 12 and prevents cutting of the hands of the user.

The countersunk end 12 is provided with a

domed top panel 27 (Fig. 2), the top of which is set below the upper end joint or double seam 14. The dome shaped strengthens the end to withstand greater internal air or gas pressures which are used to surround pressure filled articles, such as tennis balls and the like. Both the top and bottom domed ends also tend to conform partially to the spherical shape of the upper and lower tennis balls (indicated by the dot and dash line circles Fig. 2) and are arranged to embrace such balls when they are packed within the container. The interior of the body wall 11 is sized also to engage the tennis balls and this in combination with the domed end construction prevents the balls from shifting.

The lower part of the depending wall 21 of the cover 12 (Fig. 3) may be pressed outwardly at intervals to form a plurality of spaced teats or projections 28. These projections are preferably formed at the lower edge where the friction wall 21 merges into a horizontal panel wall 29. The panel wall 29 is suitably spaced below the top end seam 14 so that the projections 28 are disposed beneath the edge of the collar flange 17, as at 31. They also add to the effectiveness of a reclosure when the can is opened.

Opening of the container by removal of the tearing strip 23 is effected by severing along the score lines 24 and 25 which is performed in the usual manner by engaging the tearing tongue (indicated at 32, Fig. 1) with the conventional slotted key and winding off the strip. Thereafter the cover with its body flange part 26 and the depending wall 21 of the end 12 constitutes a double seal reclosure 33.

When the reclosure 33 is separated by this removal of the tearing strip 23, the tennis balls may be readily removed from the container. Any unused balls which are not removed may be temporarily closed within the container by the reclosure.

It is obvious from the foregoing description that containers embodying the present invention are capable of efficiently preserving tennis balls or perishable articles for an indefinite period, yet they are at the same time available for instant use. Such a container affords safety in handling as the severed edges of the opened body and also of the reclosure are sufficiently protected, leaving smooth edges on the reclosure and on the hemmed rim of the collar of the container.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

A sheet metal container for holding and preserving tennis balls, comprising a tubular body having oppositely disposed end members and an outwardly extending bead located adjacent a top end thereof, the wall of the body above the said bead being of greater diameter than the body wall below the bead, an annular internal collar fitted within the larger diameter of the body, the internal diameter of said collar being equal to the internal diameter of the body below said bead and also substantially equal to the diameter of the enclosed tennis balls, the lower edge of said collar having an outwardly extended bead seated in tight fitting engagement with the said body bead to secure the collar within the body, the upper edge of said collar having an internally hemmed flange to provide a smooth mouth for the container, a tearing strip defined by spaced score lines disposed in the enlarged section of said body just above said body bead and outside of said collar for opening the container, said end members being secured to the upper and lower ends of the body, said top end member having a countersunk wall fitting within the mouth of the container and frictionally engaging said upper hemmed collar flange and having a portion extending therebelow, said portion having spaced outwardly extending projections engaging beneath said collar flange, said end members having outwardly domed panels for engaging the outermost of the enclosed tennis balls to prevent shifting of the balls within the container, said top end member after removal of said tearing strip in the opening of the container constituting a reclosure engageable with said collar in reclosing position, said top end member when in reclosing position being in the same relative position within the opened container as the position it occupied in the closed container, so that the domed panels of said end members again hold the replaced tennis balls against longitudinal shifting within the container.

GARLAND W. REESE.