

March 25, 1969

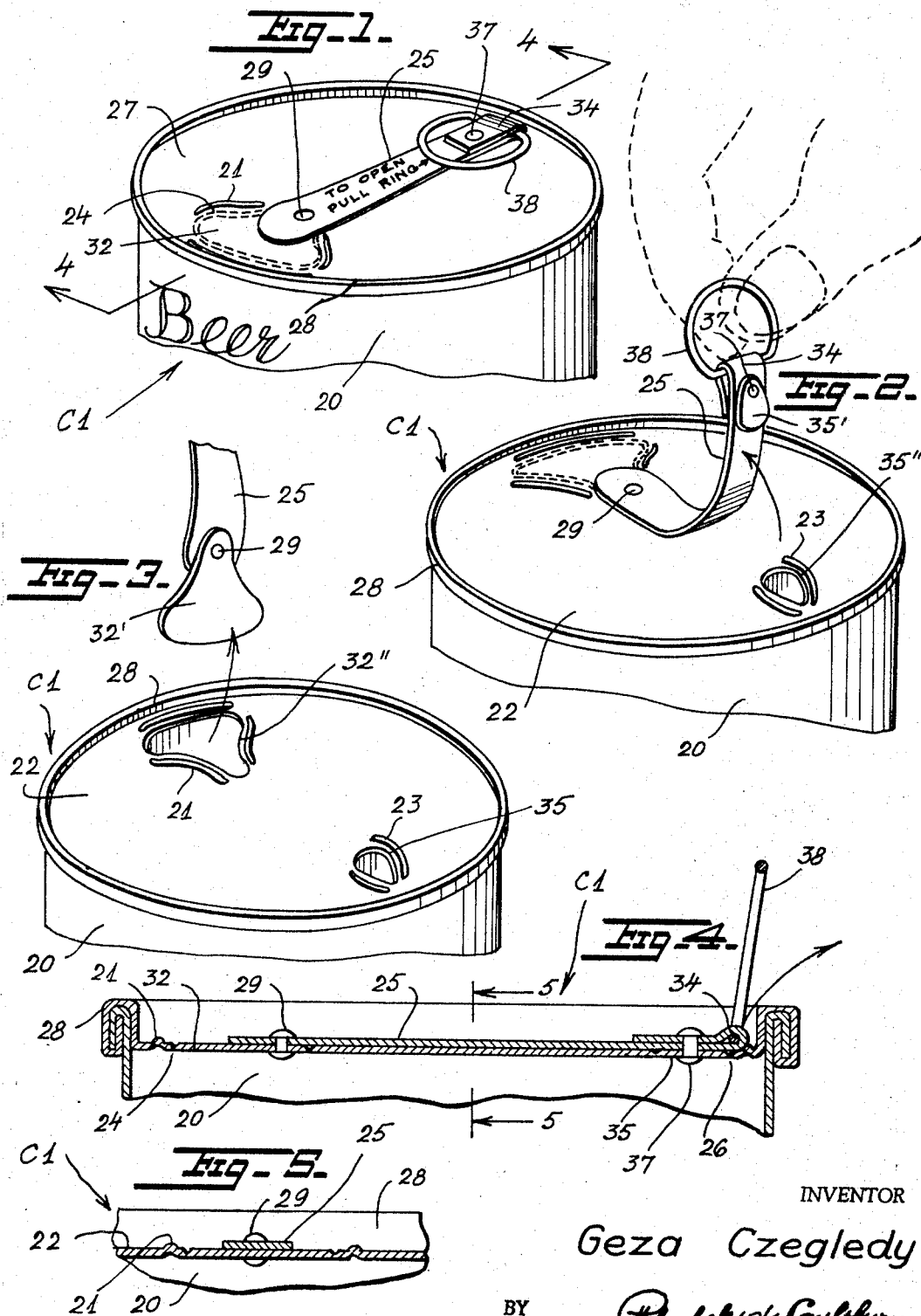
G. CZEGLÉDY

3,434,622

EASY OPENER FOR CAN TOPS

Filed April 27, 1967

Sheet 1 of 3



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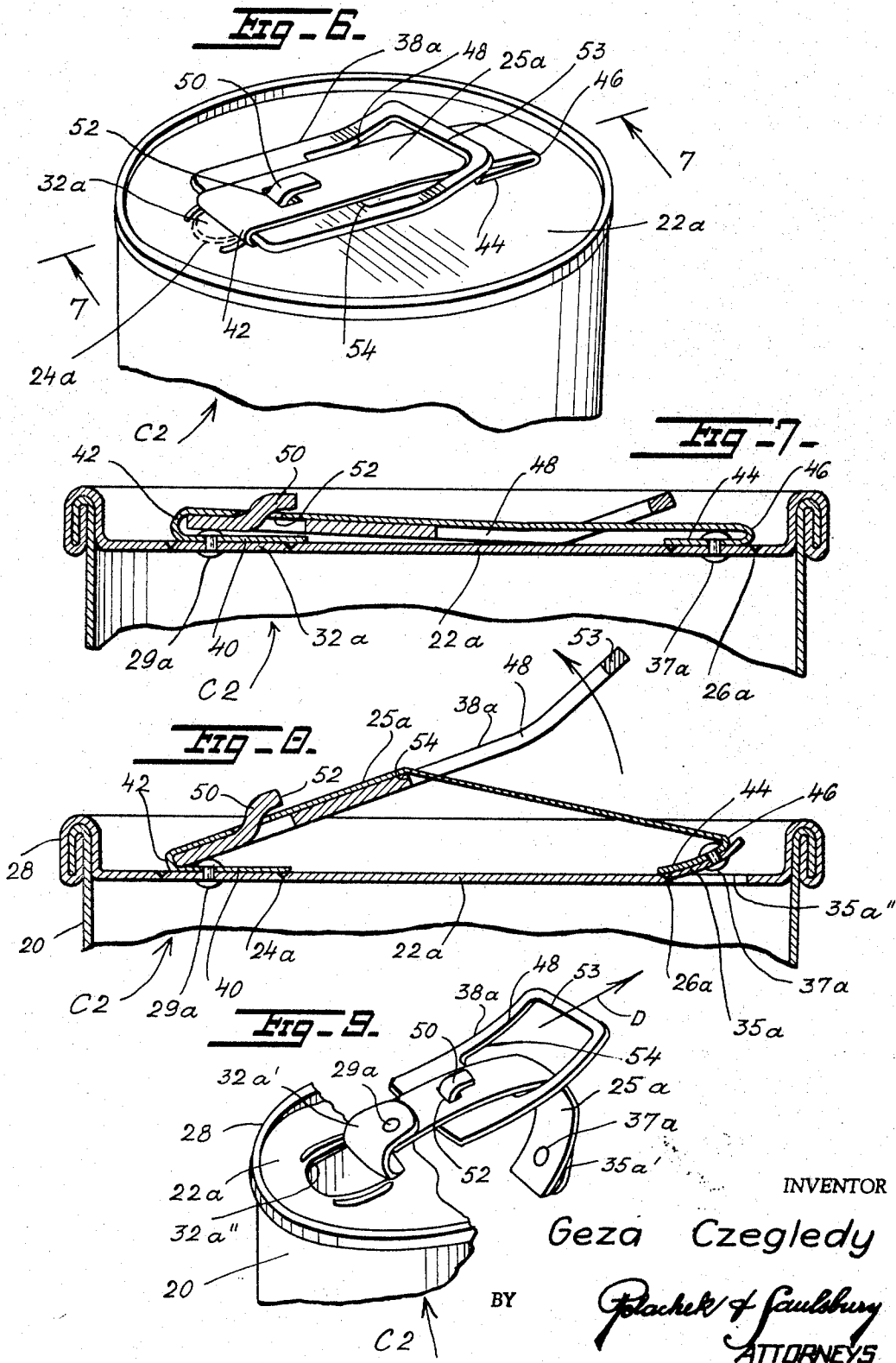
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Fig. 10.

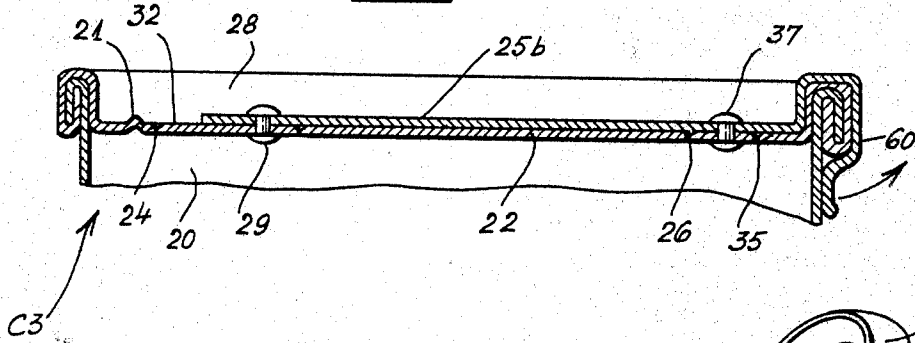


Fig. 11.

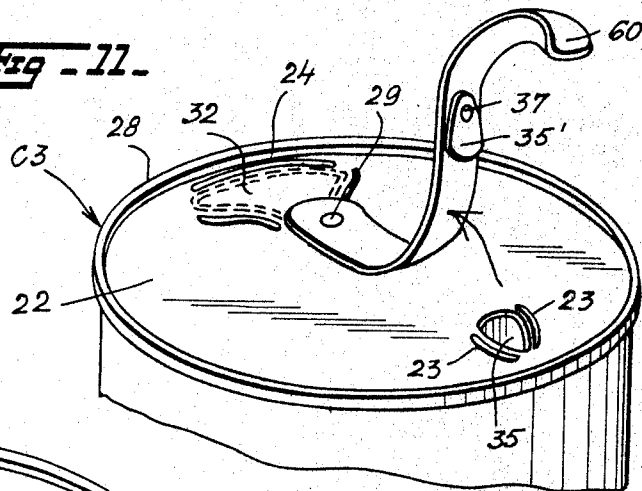


Fig. 13.

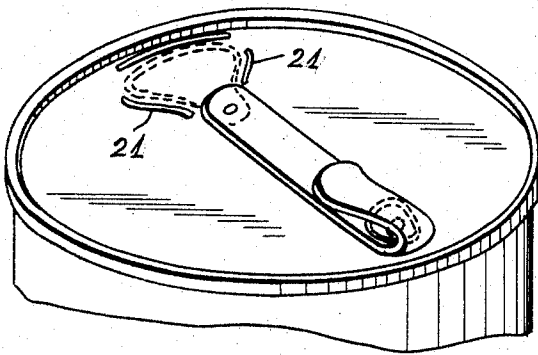
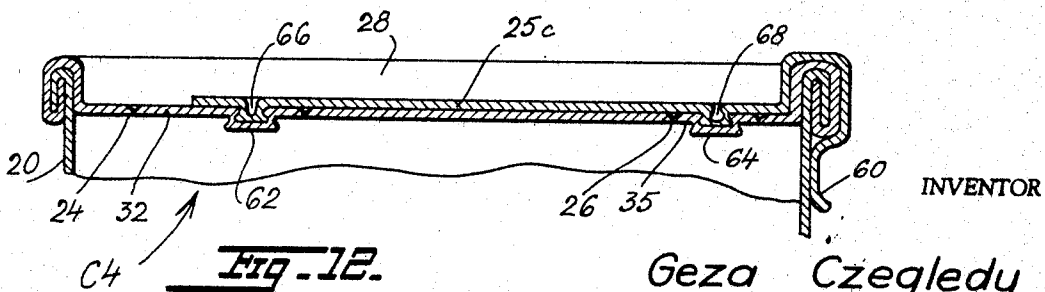


Fig. 12.

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3,434,622
EASY OPENER FOR CAN TOPS
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U.S. Cl. 220—54 5 Claims

ABSTRACT OF THE DISCLOSURE

The disclosure describes a container construction having a can end provided with a pull tab which first opens a vent and then opens a large hole in the top of the can.

In prior easy opening containers of which the one shown in Patent 3,273,745 is typical, a removable tear strip is provided with itself and forms part of the can top. This construction has not proven practical for cans subject to shipment long distances and rough handling because of the tear strips work loose and the contents of the cans leak out.

The present invention involves a tear strip which is secured to a scored can top for opening holes in the can.

There is no possibility or danger of the tear strip coming loose. If the tear strip should somehow come loose, the contents of the can will not leak out.

A principal object of the invention is to provide a can end with a removable tear strip, the strip being attached to the can end at two spaced points, whereby when the tear strip is lifted to exert a rupturing force on the can end, two tabs are torn in succession from the top of the can to form two openings.

Another object is to provide a can end as described with a pull ring on a free end of the tear strip.

Another object is to provide a can end as described, wherein the pull ring is arranged to exert leverage on the can end to facilitate pulling up the tear strip.

A further object is to provide a can end as described, wherein the tear strip is attached to the can end by rivets or by integrally formed interfitted indentations.

For further comprehension of the invention and of the objects and advantages thereof, references will be had to the following description and accompanying drawings and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

FIGURE 1 is a fragmentary perspective view of a can with a can end embodying the invention, the can end being shown closed.

FIG. 2 is a view similar to FIG. 1, the can end being shown partially open.

FIG. 3 is a view similar to FIG. 1, the can end being shown fully open.

FIG. 4 is an enlarged sectional view taken on line 4—4 of FIG. 1.

FIG. 5 is a fragmentary sectional view taken on line 5—5 of FIG. 4.

FIG. 6 is a fragmentary perspective view of another can end embodying another form of the invention, the can end being shown closed.

FIG. 7 is an enlarged sectional view taken on line 7—7 of FIG. 6.

FIG. 8 is a sectional view similar to FIG. 7, showing the can partially open.

FIG. 9 is a reduced fragmentary perspective view of the can end of FIGS. 6—8 showing the can end at a further stage of opening.

FIG. 10 is a sectional view similar to FIG. 4 of another can end showing another embodiment of the invention, showing the can end closed.

FIG. 11 is a fragmentary perspective view similar to FIG. 2, showing the can end of FIG. 10 partially open.

FIG. 12 is a sectional view similar to FIG. 4, of a further can end showing a further embodiment of the invention.

Referring first to FIGS. 1—5, there is shown a can C1 having a body 20 of suitable cylindrical tubular or square shape in cross-section with a circular top or end 22.

The top is scored by endless grooves 24, 26 near diametrically opposite points but may be diagonal points. Reinforcing ribs 21 and 23 are formed on the top surface around the areas 32 and 35 outlined by the grooves 24 and 26 respectively. The groove 24 is longer than groove 26. The grooves are formed in the top surface of the can top which is sealed by an upstanding seam 28 to the can body. Extending diametrically across the can top is a pliable metal or plastic tear strip 25. The strip may however extend diagonally. A rivet 29 secures one end of the tear strip to the area 32 of the can defined by endless groove 24. A loop 34 is formed at the other end of the strip and this loop is secured by a rivet 37 to small area 35 defined by endless groove 26. A ring 38 is secured by loop 34 to the tear strip.

To open the can, ring 38 is grasped and pulled up as indicated in FIG. 2. This removes a small tab 35' leaving opening 35" in the can top. Air can enter the can through this opening. Then the tear strip 25 can be pulled upwardly as indicated in FIG. 3 to remove the tab 32' leaving large opening 32" from which the contents of the can can be poured.

In FIGS. 6—9 is shown can C2 in which parts corresponding to those of can C1 are identically numbered. In this can, can top 22a is provided with endless grooves 24a and 26a at diametrically spaced positions, but may be spaced diagonally. Rivet 29a secures one end of tear strip 25a to scored area 32a. The tear strip is bent over at end 40 to form a fold 42. At its other end 44 the tear strip is bent under to form fold 46. Rivet 37a secures this end to area 35a of the tear strip outlined by scored groove 26a. Instead of rivets, the tear strip might be spot welded to the can top.

In opening the can as indicated in FIG. 8, the bent up end edge 53 of the ring is lifted. This tensions the tear strip at the edge 54 of the opening 48 and tab 35a' is torn loose forming the first smaller hole 35a". Then as indicated in FIG. 9, the ring can be pulled in direction D so that tab 32a' is pulled free from the can top leaving large opening 32a" from which the contents of the can will be poured.

In FIGS. 10 and 11, parts of can C3 corresponding to can C1 are identically numbered. In can C3, the tear strip 25b has an extended end 60 which is bent down over seam 28. The ring 38 of can C1 is omitted. This free end 60 of the tear strip can be grasped and pulled up as shown in FIG. 11 to remove tab 35' and leave hole 35". Further pulling up of the tear strip will remove scored area 32 from can top 22 in the same manner as described above for can C1.

In FIG. 12, can C4 is similar to can C3 and corresponding parts are identically numbered. The rivets 29 and 37 of can C3 are omitted and instead round depressions 62 and 64 are formed at diametrically spaced points. Tear strip 25c is formed with depressions 66, 68 which interfit with and are securely engaged in depressions 62, 64 respectively. The tear strip can be pulled up in the same manner as shown in FIG. 11 to open the can top 22 at two spaced areas.

In all forms of the invention described, two holes are opened in succession in the can top in a quick, easy and convenient manner.

If desired the rivets employed to hold the tear strips

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in cans C1 and C3 can also be replaced by interfitted depressions as illustrated in FIG. 12.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

What is claimed is:

1. Easy opening means for a container of a liquid wherein said container has a flat, thin and tearable top and with side and top and bottom end walls, the top end wall being secured at its periphery by a rolled seam, a tear strip secured at spaced opposed points to said flat top end wall, a first tab outlined by an endless groove in said flat top and in all surrounding one of said points, a second tab longer than the first tab outlined by an endless other groove in said flat top end wall to leave two openings therein, separate means for lifting the tear strip and two depressions formed in both said tear strip and said flat top of the container at said spaced points respectively, the depressions in the tear strip interfitted with and secured in the depressions in the flat top.

2. Easy opening means for a container of a liquid as recited in claim 1, and separate means for lifting the tear strip, the last named means for lifting the tear strip comprising a ring secured to the tear strip at one end thereof and an extension of one end of the tear strip extending over and around the seam.

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3. Easy opening means for a container as recited in claim 2, further comprising two depressions formed in both said tear strip and said flat top of the container at said spaced points respectively, the depressions in the tear strip interfitted with and secured in the depressions in the flat top.

4. Easy opening means for a container of a liquid as recited in claim 1, and separate means for lifting the tear strip, comprising a generally flat ring having a hole therein, said tear strip extending through said hole in the ring and being tensioned against an edge of said hole when the ring is lifted to tear loose the first tab.

5. Easy opening means for a container as recited in claim 4, wherein said ring has a struck up tongue, said tear strip having an opening therein through which said tongue extends, whereby the second tab is torn from the flat top of the container when the tear strip is pulled outwardly by means of said ring while the tongue remains engaged in said opening in the tear strip.

References Cited

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GEORGE T. HALL, *Primary Examiner.*

U.S. Cl. X.R.

220—44