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EASY OPEN CONTAINER AND METHOD

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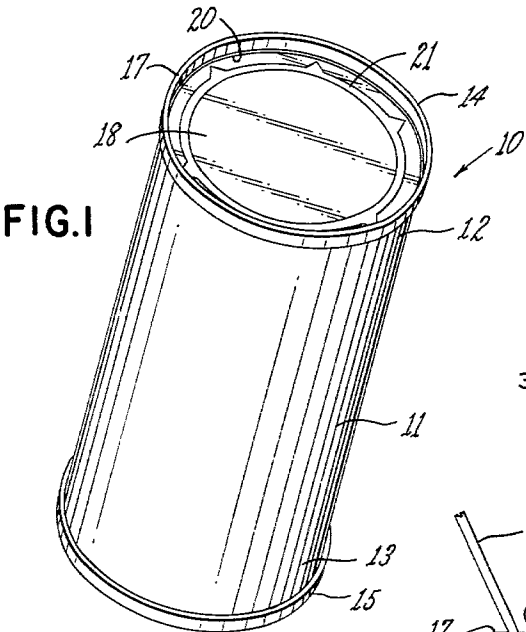
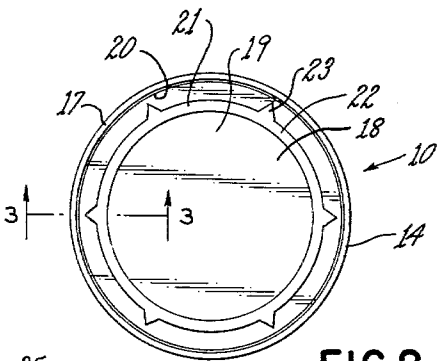
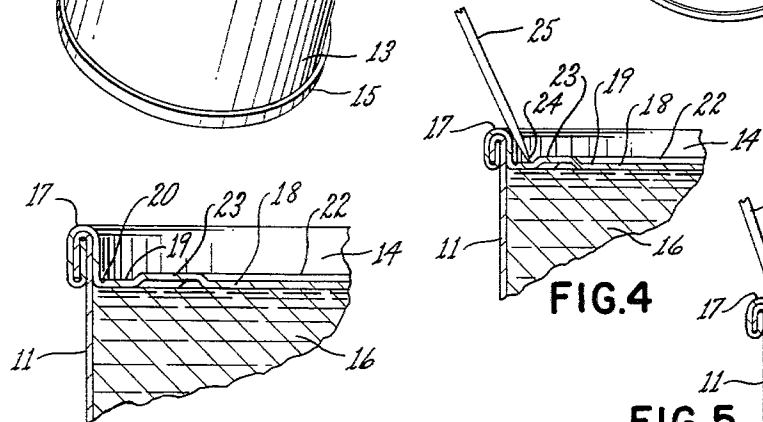
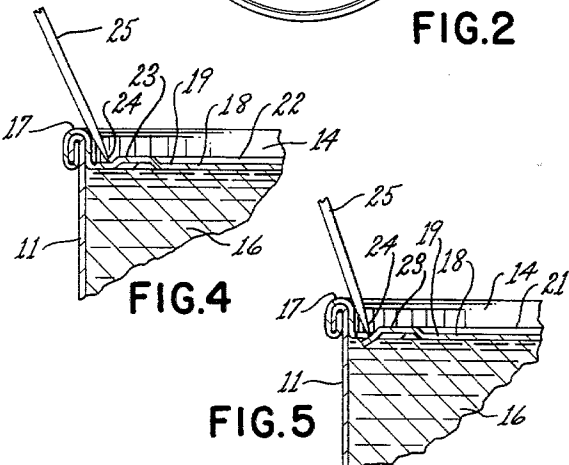
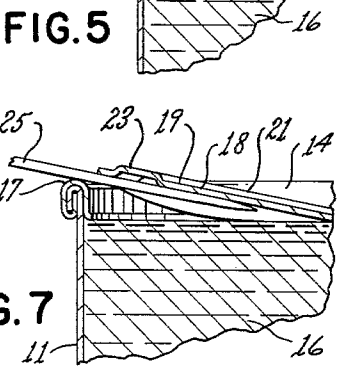
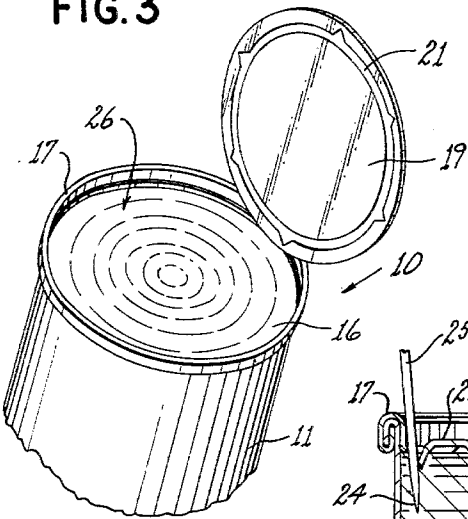
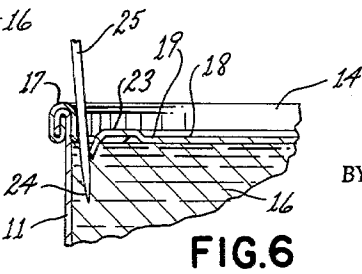


FIG. 8

FIG. 6

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1

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EASY OPEN CONTAINER AND METHOD

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This invention relates to an improved container and the parts therefor as well as to an improved method for making such container and the parts therefor.

It is well known that many container manufacturers are striving to provide metallic containers having opening means which will permit the ultimate consumer to open the metallic container with a minimum of effort and time without utilizing conventional electric and manual can opening devices.

According to the teachings of this invention, such an improved container is provided whereby the ultimate consumer can readily open the same while merely utilizing a blunt instrument, such as a conventional table knife or the like.

Thus, the container of this invention can be opened in a simple and effective manner without requiring time consuming and expensive container opening devices.

Accordingly, it is an object of this invention to provide an improved container having one or more of the novel features of this invention as set forth above or hereinafter shown or described.

Another object of this invention is to provide an improved end closure for such a container or the like.

A further object of this invention is to provide an improved method for making and opening such a container, or the like.

Another object of this invention is to provide an improved method for making an end closure for such a container or the like.

Other objects, uses and advantages of this invention are apparent from a reading of this description, which proceeds with reference to the accompanying drawings forming a part thereof and wherein:

FIGURE 1 is a perspective view illustrating the improved container of this invention.

FIGURE 2 is a top view of the container illustrated in FIGURE 1.

FIGURE 3 is an enlarged, fragmentary, cross-sectional view taken on line 3-3 of FIGURE 2.

FIGURE 4 is a view similar to FIGURE 3 and illustrates the initial step in opening the container of FIGURE 1.

FIGURES 5-7 are views similar to FIGURE 4 and illustrates other steps in the method of this invention for opening the container of FIGURE 1.

FIGURE 8 is a fragmentary, perspective view similar to FIGURE 1 and illustrates the container in one of its open positions.

While the various features of this invention are hereinafter described and illustrated as being particularly adaptable for providing opening means for metallic containers, it is to be understood that the various features of this invention can be utilized singly or in any combination thereof to provide means for opening other types of containers or devices.

Therefore, this invention is not to be limited to only the embodiment illustrated in the drawings, because the drawings are merely utilized to illustrate one of the wide variety of uses of this invention.

Referring now to FIGURE 1, the improved container of this invention is generally indicated by the reference numeral 10 and comprises a substantially cylindrical container body 11 having opposed open ends 12 and 13 re-

2

spectively closed by end closures 14 and 15 in a conventional manner to enclose a suitable product 16 within the container 10.

For example, the container 10 of this invention can comprise an all metallic structure with the end closures 14 and 15 being seamed to the open ends 12 and 13 of the container body 11 in a conventional manner as provided by the rim structure 17 illustrated in FIGURE 3 whereby the various features of this invention can be utilized with conventional metallic container closing apparatus or the like.

However, one of the end closures 14 and 15 of the container 10 of this invention is provided with the following novel opening means in a manner unique in the art.

As illustrated in FIGURES 2 and 3, the end closure 14 is defined by a raised rim structure 17 around the outer periphery thereof which is adapted to be crimped to the open end 12 by the container body 11 to seal the product 16 therein, the rim structure 17 being integrally interconnected to a wall 18 of the end closure 14 which closes the open end 12 of the container body 11.

A liftable portion 19 is formed in the wall 18 of the end closure 14 and is defined by a continuous score 20 formed in the exterior of the wall 18 closely adjacent the rim structure 17 as illustrated in FIGURE 2, the score 20 partially cutting through the wall 18 to permit the liftable portion 19 to be readily separated from the remainder of the wall 18 in a manner hereinafter set forth.

The liftable portion 19 of the end closure 14 is provided with a raised section 21 defined by an embossment formed into the interior side of the wall 18.

The raised section 21 is defined by a substantially continuous raised annular ridge or area 22 disposed inboard of the score 20 and concentric thereto, the annular raised section 22 having a plurality of outwardly directed triangular portions 23 pointing toward the score 20 but being spaced inboard therefrom in the manner illustrated in FIGURE 2.

Therefore, it can be seen that the end closure 14 of this invention can be formed in a relatively simple and effective manner by utilizing conventional scoring and embossing equipment whereby the end closure 14 of this invention can be secured to the container body 11 in a conventional manner without requiring special apparatus or the like.

When it is desired to open the container 10 of this invention, the ultimate consumer can place the point 24 of a blunt instrument 25, such as a conventional table knife or the like, in the position illustrated in FIGURE 4, whereby the instrument 25 rests against the rim structure 17 of the end closure 14 and the point 24 of the instrument 25 is disposed against the apex of one of the indicators 23 of the raised section 22 of the end closure 14.

Thereafter, the ultimate consumer merely moves the instrument 25 downwardly from the position illustrated in FIGURE 4 to the position illustrated in FIGURE 5 to bend the liftable portion 19 downwardly into the container to provide a small opening between the liftable portion 19 and the wall 18 of the end closure 14 so that the point 24 of the instrument 25 can be inserted into the container at the separation between the liftable portion 19 and the wall 18 of the end closure 14 in the manner illustrated in FIGURE 6.

It may be found that the raised section 22 limits the initial bending in of the liftable portion 19 in the manner illustrated in FIGURES 5 and 6.

With the instrument 25 now inserted into the container 10 in the above manner, the ultimate consumer can pry upwardly with the instrument 25 by pushing downwardly on the handle portion thereof and utilizing the rim struc-

3

ture 17 as a fulcrum point whereby the point 24 of the instrument 25 will lift the liftable portion 19 of the end closure 14 upwardly in the manner illustrated in FIGURE 7 to completely separate the liftable portion 19 at the score 20 from the remainder of the end closure 14 in the manner illustrated in FIGURE 8 so that an opening 26 can be provided in the container 10 for a product dispensing purpose.

It is to be understood that while the liftable portion 19 of the container 10 of this invention is illustrated as still being attached in FIGURE 8 of the drawings, the liftable portion 19 could be completely separated from the container 10 if desired.

Therefore, it can be seen that not only does this invention provide an improved container and an end closure therefor, but also this invention provides an improved method for making such a container or an end closure whereby the container can be readily opened in a simple and effective manner without requiring conventional container opening devices.

While the form of the invention now preferred has been disclosed as required by the statutes, other forms may be used, all coming within the scope of the claims which follow.

What is claimed is:

1. A container having a wall provided with a liftable portion, said liftable portion having a raised section inboard of the periphery thereof said raised section having a projection extending between said raised section and said periphery of said liftable portion whereby an instrument can be placed against the free end of said projection and bend said liftable portion between said projection of said raised section and said wall by being guided into said container by said projection so as to be inserted into said container and lift said liftable portion away from said wall to provide an opening in said container for product dispensing.

2. A container as set forth in claim 1 wherein said wall forms an end closure for said container.

3. A container having a wall, said wall having a continuous separation line to define a liftable portion of said wall, said liftable portion having a raised section inboard of said line, said raised section having a plurality of spaced projections each extending between said raised section and said separation line whereby an instrument can be placed against the free end of one of said projections and bend said liftable portion between said one projection of said raised section and said line by being guided into said container by said one projection so as to be inserted into said container and lift said liftable portion away from said wall by separating said liftable portion from said wall at said line to provide an opening in said container for product dispensing.

4. A container having a wall, said wall having a continuous score to define a liftable portion of said wall, said liftable portion having a raised section inboard of said score, said raised section having a plurality of spaced projections each extending between said raised section and said score whereby an instrument can be placed against the free end of one of said projections and bend said liftable portion between said one projection of said raised section and said score by being guided into said container by said one projection so as to be

4

inserted into said container and lift said liftable portion away from said wall by separating said liftable portion from said wall at said score to provide an opening in said container for product dispensing.

5. A container as set forth in claim 4 wherein said score is impressed in the exterior surface of said wall.

6. A container comprising a cylindrical body member having an open end, and an end closure closing said open end, said end closure defining a continuous raised rim structure around said open end and a wall closing said open end and being interconnected to said rim structure, said wall having a continuous score closely adjacent said rim structure and defining a liftable portion of said wall disposed inboard of said rim structure, said liftable portion having a raised section inboard of said score, said raised section having a plurality of spaced projections each extending between said raised section and said score whereby an instrument can be placed against the free end of said projection and bend said liftable portion between said one projection of said raised section and said score by being guided into said container by said one projection so as to be inserted into said container and lift said liftable portion from said wall at said score to provide an opening in said container for product dispensing.

7. A container as set forth in claim 6 wherein said raised section comprises a continuous embossment concentric with said score.

8. A container as set forth in claim 7 wherein each of said projections comprises a triangular part having the apex thereof providing said free end and having the top surface thereof coplanar with the top surface of said embossment.

9. An end closure for a container, said end closure having a wall provided with a liftable portion, said liftable portion having a raised section inboard of the periphery thereof, said raised section having a projection extending between said raised section and said periphery of said liftable portion whereby an instrument can be placed against the end of said projection and bend said liftable portion between said projection of said raised section and said wall by being guided into said container by said projection so as to be inserted therebeneath to lift said liftable portion away from said wall to provide an opening in said end closure.

10. An end closure as set forth in claim 9 wherein said wall has a continuous score that defines said periphery of said liftable portion and wherein said raised section is a continuous embossment concentric with said score and said projection comprises a triangular part having the apex thereof providing said free end and having the top surface thereof coplanar with the top surface of said embossment.

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