Jan. 24, 1933. C. J. AULBACH 1,895,386

EASY OPENING CONTAINER

Filed Aug. 9, 1929

FIG. 1.

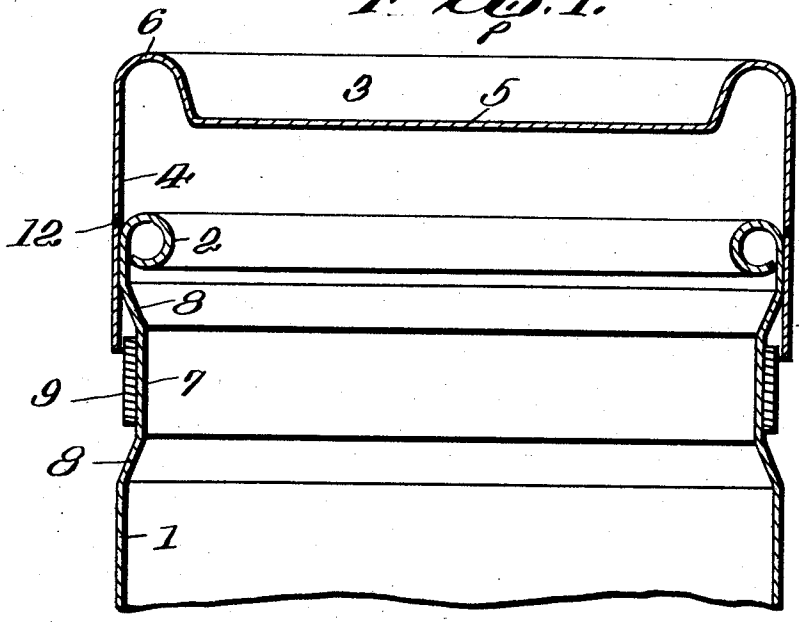


FIG. 2.

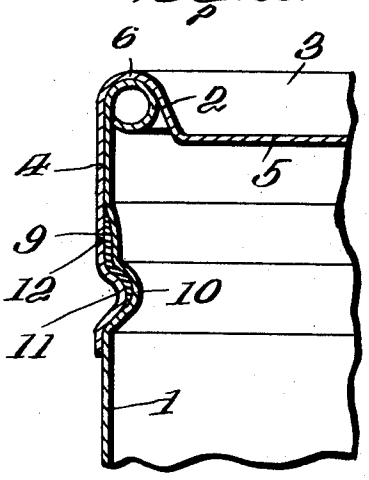
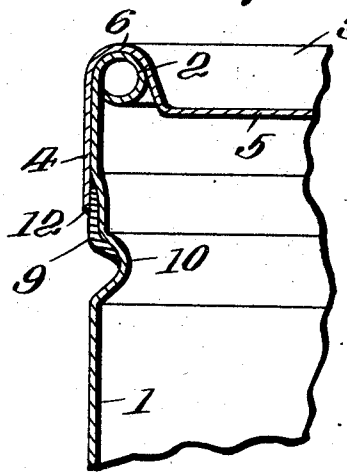


FIG. 3.



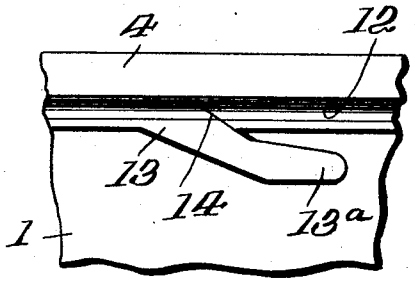


FIG. 4.

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UNITED STATES PATENT OFFICE

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EASY OPENING CONTAINER

Application filed August 9, 1929. Serial No. 384,714.

The invention relates to new and useful improvements in easy opening containers, and more particularly to a container which may be hermetically sealed.

An object of the invention is to provide an easy opening container having a hermetic seal between the closure and the body portion of the container wherein the means for releasing the closure from the container body will also break the seal so that the closure may be readily removed from the container body.

A further object of the invention is to provide a container of the above character wherein the closure is released from the container body by the removal of a rip strip, and wherein said rip strip is a part of the securing means and the sealing means so that the removal of the rip strip breaks the seal as well as releases the securing means.

These and other objects will in part be obvious and will in part be hereinafter more fully disclosed.

In the drawing which shows by way of illustration one embodiment of the invention:—

Figure 1 is a sectional view through a container with the closure slipped over the end of the container before it is seated thereon.

Fig. 2 is a view showing the end seated and sealed to the container body.

Fig. 3 is a view showing the rip strip removed, the closure released, and the seal broken.

Fig. 4 is a detail showing a portion of the closure in side view.

The invention is directed broadly to an easy opening container wherein a closure is applied to a container body and secured thereto. The securing means is of a character so that the closure is permanently attached to the body until a portion of the closure or body is ruptured in order to release the closure from the body portion. In the carrying out of the invention as illustrated the closure is provided with a depending flange which engages over the open end of the container and closes said open end. In the lower portion of this flange is a securing means which is caused to engage a shoulder on a container body for permanently securing the closure to the container body until the closure is ruptured for releasing the same. The flange is scored along a line between the securing means and the top of the closure, thus forming a rip strip which may be torn away for releasing the securing means.

In the finished container with the closure secured to the body there is a sealing means in the region of the securing means and rip strip, which sealing means hermetically seals the closure. After the closure has been placed on the container body there is a reshaping of the wall of the depending flange of the closure and the wall of the container body which not only brings about a securing of the closure to the container body but a compressing and embedding of the metal in the sealing means so as to hermetically seal the closure end to the container. When the rip strip is torn away it not only releases the securing means but also releases the seal or renders it so that it can be easily broken and the closure removed.

Referring more in detail to the drawing, the body portion 1 is preferably cylindrical. Said body portion is rolled at the top edge to provide a hollow bead 2. This end of the container body is closed by a closure 3. The closure is attached to the body by the manufacturer of the container. Afterwards the container is filled and the other end thereof which becomes the bottom end of the closed package is secured by the usual double seam. This is a common method of manufacturing containers with specially constructed easy opening means. The closure 3 is provided with a depending flange 4 and a central depression 5, thus forming a channel 6 which receives the hollow bead 2. The container body as initially formed has an annular recess in the outer face of the body wall adjacent the hollow bead 6. The wall is depressed inwardly at 7 forming inclined portions 8, 8 and this is what produces the recess. This recess may be otherwise shaped.

Attached to the body in the recess formed in the outer wall is an elastic gasket 9. This gasket 9 is preferably a flat ring shape and engages the container wall so as to be retained

in a fixed position thereon. The depth of the recess is sufficient so that when the gasket is placed in the recess the flange 4 of the closure will freely pass down over the outer wall and the gasket.

In Fig. 1 of the drawing the closure is being applied to the container and it is apparent that the flange 4 will readily pass down over the gasket and not disturb the position of the same during the seating of the closure on the container body. As noted above, this is accomplished by the manufacturer of the container. The other end of the container is open and access may be readily had to the interior of the container body. When the closure has been seated on the container body the wall of the container body and the wall of the depending flange are subjected to rolling pressure which deforms these parts causing the sealing band to be also deformed and firmly gripped so as to produce a very tight hermetic seal.

As shown in the drawing, the deforming of the body portion produces an inwardly projecting bead 10. The flange is also provided with an inwardly projecting bead 11. The wall of the container body adjacent the upper portion of the recess and the upper portion of the sealing band is flattened somewhat so that the sealing band 9 is deformed, a portion of the same being gripped between the engaging beads 10 and 11, and a portion of the same being gripped between the wall of the container body and the depending wall of the flange above said beads.

The depending flange 4 of the closure is provided with a score line 12 forming at the lower edge of the depending flange a rip strip 13 with an integral projecting tongue 13*a*. There is a score line 14 extending across the flange beneath the score line 12. When a key is applied to the tearing tongue 13*a* the rip strip 13 may be rolled onto the key and the metal severed along the score line 12. The rolling of the strip onto the key will release the securing means as the portion of the depending flange of the closure containing the bead 11 is torn away. It will also uncover the sealing band to a point near the upper end of the band and this will in effect break the seal.

It will be understood that other ways of securing the closure to the container body may be provided, and other ways of completing a hermetic seal between the closure and the container body may also be provided; the essential features reside in the placing of the securing means and the sealing means so that the sealing means lies between the securing means and the open end of the body portion of the container. Therefore, the securing means is not depended upon to produce or aid in producing a hermetic seal. All that the securing means accomplishes is the mechanical connection of the closure to the container body. Another essential feature resides in the placing of the securing means and the sealing means within the range of the rip strip so that when the rip strip is removed for releasing the securing means it also breaks the seal and thus permits the cover or closure to be readily removed and replaced.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

A container comprising a body portion, a closure having a depending flange for engaging the body portion, said depending flange being scored to form a rip strip, a plastic sealing gasket disposed between the wall of the container and the rip strip in the flange of the closure, said rip strip and body wall being deformed so as to retain the closure on the container body and compress the sealing gasket for sealing the container, whereby when said rip strip is removed to release the closure, a portion of the sealing gasket is released and exposed so that said portion can be grasped for removing the gasket, thereby breaking the seal of the container.

In testimony whereof, I affix my signature.

CHARLES J. AULBACH.