

Nov. 25, 1941.

G. C. ERB

2,263,573

CONTAINER

Filed Nov. 5, 1938

Fig. 1

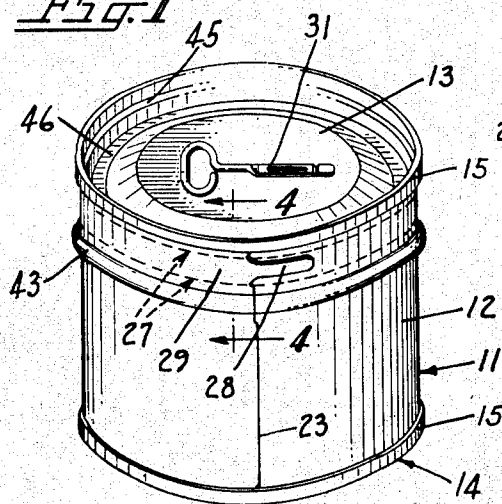


Fig. 6

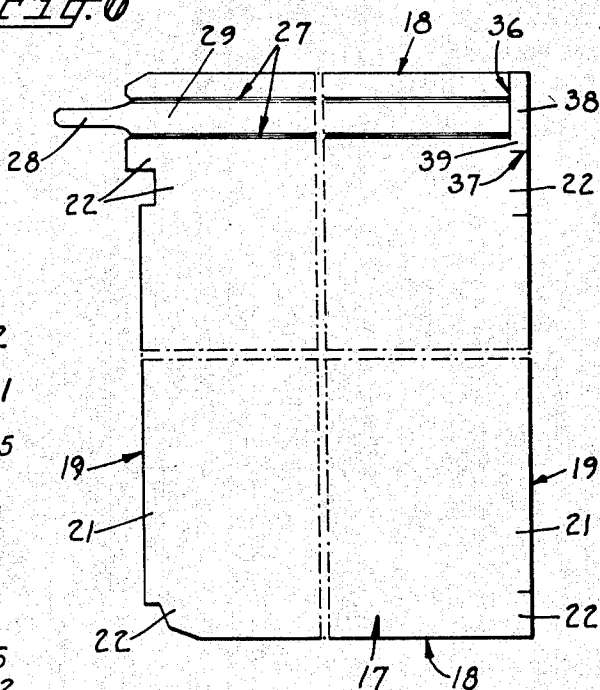


Fig. 2

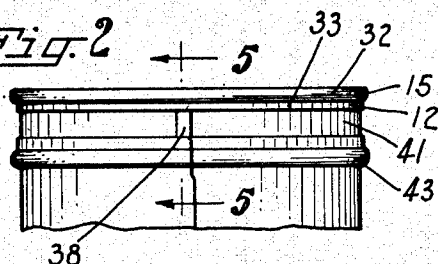


Fig. 7

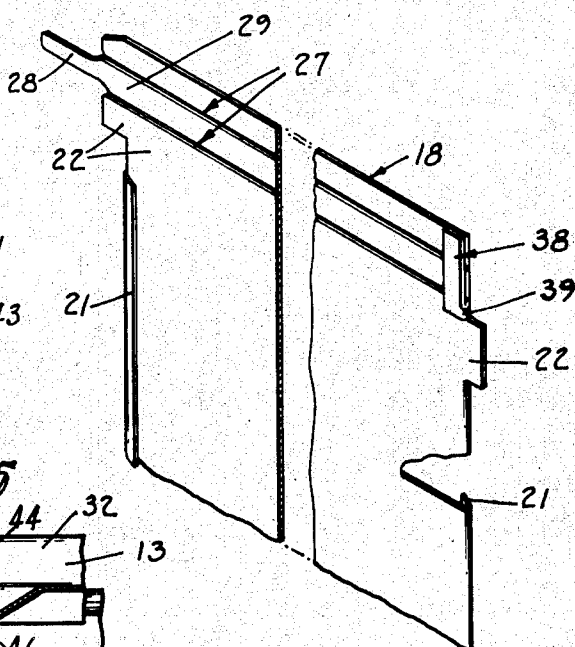


Fig. 3

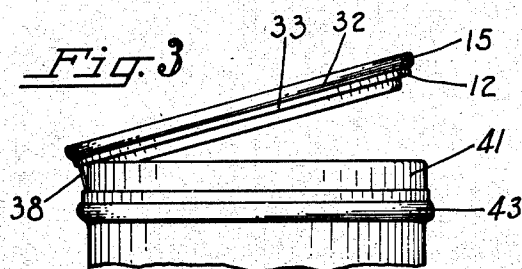


Fig. 4

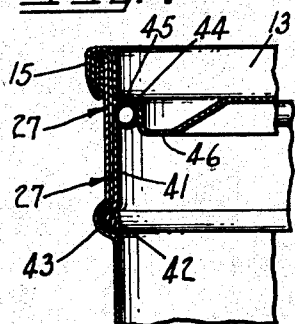
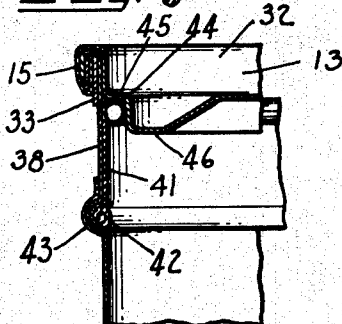


Fig. 5



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2,263,573

CONTAINER

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Application November 5, 1938, Serial No. 239,126

2 Claims. (Cl. 220—54)

The present invention relates to containers or cans of the tearing strip character and has particular reference to a hinge member formed from a portion of the side seam of the can body and used for hingedly connecting the can body to a reclosure cover produced by removal of the tearing strip.

An object of the invention is the provision in a tearing strip can, of a hinge member for connecting the can body with the reclosure cover produced by removal of the tearing strip, wherein the hinge member is an integral part of the can body and is obtained from a section of the body wall located at one end of the tearing strip and in the side seam of the body and within the confines of the usual body outline, thereby producing an efficient hinge without augmenting the cost of manufacture or adding to the cost of material of the body blank.

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 sealed can embodying the instant invention;

Fig. 2 is a side elevation of the upper portion of the can illustrated in Fig. 1 and showing the can in partially opened condition;

Fig. 3 is a view similar to Fig. 2 but at right angles thereto showing the can further opened;

Figs. 4 and 5 are enlarged fragmentary sections taken substantially along the lines 4—4 and 5—5 in the respective Figs. 1 and 2;

Fig. 6 is an enlarged plan view of a flat blank from which the body of the can is made, with parts broken away; and

Fig. 7 is an enlarged perspective view of the can body blank after certain forming operations have been performed on it.

As a preferred embodiment of the invention the drawing illustrates a cylindrical sheet metal container 11 (Fig. 1) which includes a body member 12 and top and bottom end or closure members 13, 14 secured to the body member by suitable end seams 15.

The body member 12 is preferably of the lock and lap side seam type and is produced from a flat rectangular blank 17 (Fig. 6) having longitudinal or flange edges 18 and transverse or side seam edges 19. The side seam edges 19 are notched and slit in the usual manner to provide lock seam portions 21 and lap seam portions 22. 55

These lock and lap portions are overlapped and interfolded and preferably soldered to form a side seam 23 (Fig. 1) for the can after the blank is rounded up into body shape. This is a usual body construction. The flange edges 18 of the blank are bent outwardly to provide end flanges after the blank is formed into the body 12 and it is these flanges which are interfolded with similar flanges on the closure members that produce the end seams 15.

The body 12 adjacent its upper edge is provided with a pair of spaced and parallel score lines 27 (Figs. 1, 6 and 7) which extend entirely around the body. These score lines at one end terminate adjacent the body side seam 23, terminating short of and in spaced relation to the side seam edge 19 (at the right in Fig. 6). At their opposite ends they terminate in a tongue 28 which in the finished can extends beyond the side seam and lies flat against the outer surface of the body wall. The score lines thus set off a tearing strip 29 which may be readily removed by a suitable key 31 and in the well known manner.

Removal of the tearing strip 29 as shown in Figs. 2, 3 and 5 produces a removable reclosure cover 32 which includes the top member 13 and that portion of the body 12 disposed above the tearing strip and which is secured to the top member by the upper end seam 15. This portion of the cover extends down forming a flange 33.

A hinge member formed integrally with the body 12 is provided for the removable cover 32. For this purpose the body blank 17 is cut through along a line of severance 36 (Fig. 6) which is parallel with and spaced inwardly from the side seam edge 19 at the right of the figure. This line of severance extends from the upper flange edge 18 of the blank down adjacent the terminal ends of the score lines 27 and stops at the lower score line, thus cutting across both score lines.

Below the lower score line the blank is slit along a short line of severance 37 which extends inwardly from and at right angles to the side seam edge 19. This line of slit terminates in line with the lower end of the cut 36 but is spaced away therefrom. Thus the cut and slits 36, 37 set off a hinge portion 38 which comes out of the upper end of the side seam lap section 22 at the right of the blank (Fig. 6) and which is integrally connected to the body adjacent the side seam by a connecting portion 39.

This hinge portion 38 is folded over (toward the left in Fig. 6) and laid down against the in-

side of the body as shown in Fig. 7 where it extends across the end of the tearing strip 29. The hinge portion is thus integrally connected to the body below the tearing strip. Its upper free end is still at the upper flange edge 18 and is incorporated and securely held in the upper end seam 15 when the latter is formed.

When the tearing strip 29 is removed in the opening of the can, the reclosure cover 32 is produced and such a cover is connected to the can body by the hinge member 38, as shown in Figs. 2, 3 and 5. The cover may thus be used as a hinged reclosure for the can.

Provision is made for seating the hinged reclosure cover on the can when the cover functions as a reclosure. For this purpose a collar or band 41 of sheet metal is disposed inside the can body adjacent to and back of the tearing strip 29. The lower edge of the collar is preferably provided with an edge curl 42 which is anchored in a bead 43 formed in the body side wall, this construction firmly holding the collar in place.

The upper end of the collar is formed with an inwardly bent or turned edge curl 44 which provides a smooth curved seat for the top member 13 of the reclosure hinge cover 32. The top member 13 is formed with a shouldered step or ledge 45 (Figs. 4 and 5) which fits over the collar edge curl when the top member is in place on the can. This step 45 merges into a countersunk panel 46 which extends down within the mouth of the collar when can top and body are assembled thus providing what is commonly known in the art as a double step cover. After removal of the tearing strip, the resulting reclosure cover may be moved on its hinge connection to bring it into place in the collar, this providing the reclosure feature. The collar then serves as a friction base for the flange 33 of the cover 32.

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:

1. A sheet metal container, comprising a body having a side seam, and an end closure member secured to said body by an end seam, said body being provided with score lines setting off a tearing strip extending entirely around the body adjacent said end closure member, said body also having a hinge portion thereof partially cut out of its side seam above and below said tearing strip, said hinge portion being folded inwardly along a line substantially parallel to said side seam and over said tearing strip and against the adjacent body wall and having its free end where it extends above the tearing strip, secured in said end seam, thereby providing a hinge connecting the body with a reclosure cover produced from the part of said container above the tearing strip when said tearing strip is removed.

2. A sheet metal container, comprising a body having a side seam, an annular collar disposed in said body, and a double step end member secured to said body by an end seam, said body being provided with score lines setting off a tearing strip extending entirely therearound adjacent said end closure member, said body also having a hinge portion thereof partially cut out of its side seam above and below said tearing strip, said hinge portion being folded inwardly along a line substantially parallel to said side seam and over said tearing strip and against said body wall and having its free end where it extends above the tearing strip secured in said end seam, thereby providing a hinge connecting the body with a reclosure cover produced from the part of said container above the tearing strip when said tearing strip is removed, said hinged reclosure cover utilizing said collar as a friction base when the reclosure cover is in closed position on the container.

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