

July 23, 1940.

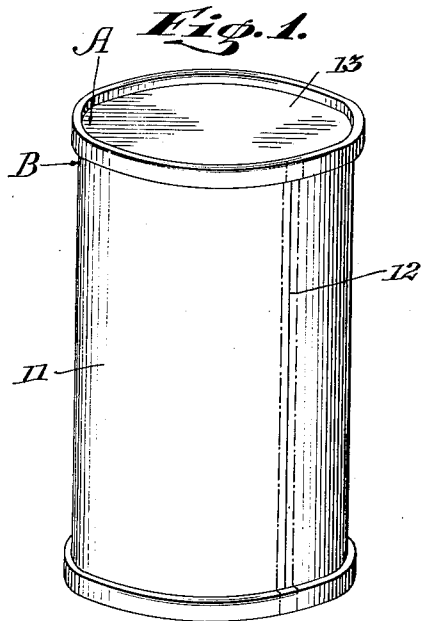
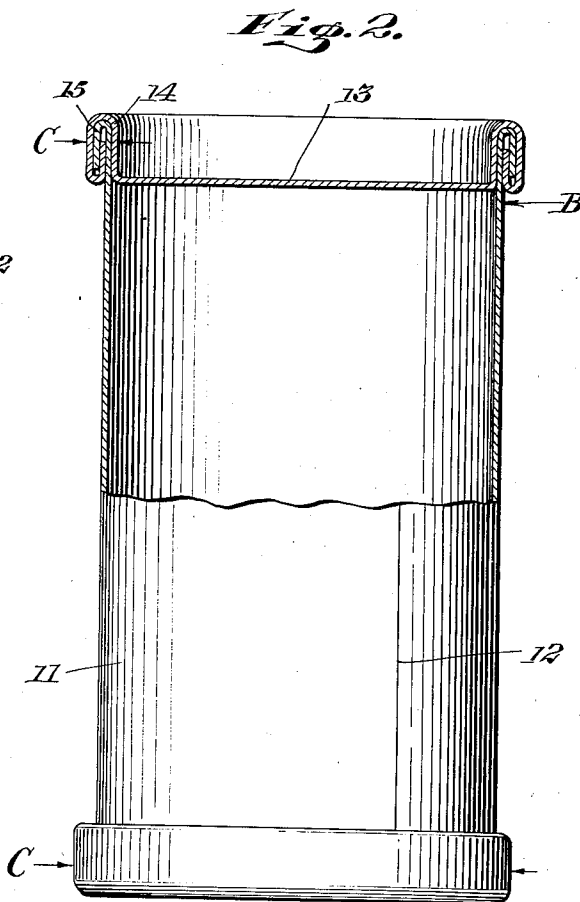
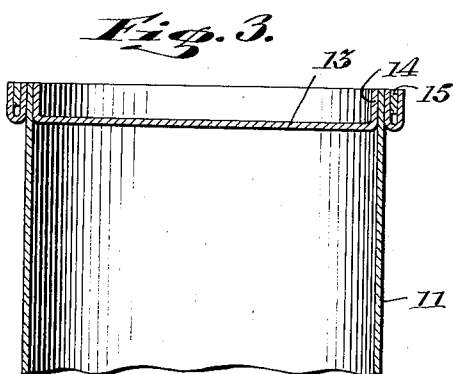
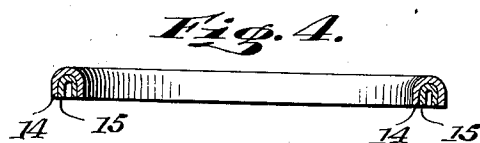
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METHOD OF DISMANTLING CONTAINERS

Filed Dec. 12, 1938

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 5.

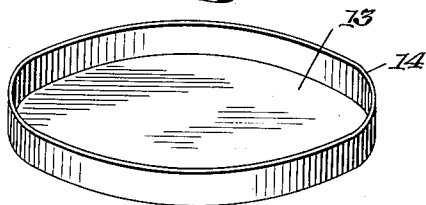


Fig. 6.

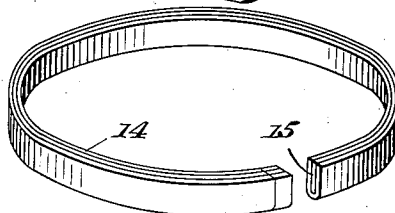


Fig. 7.

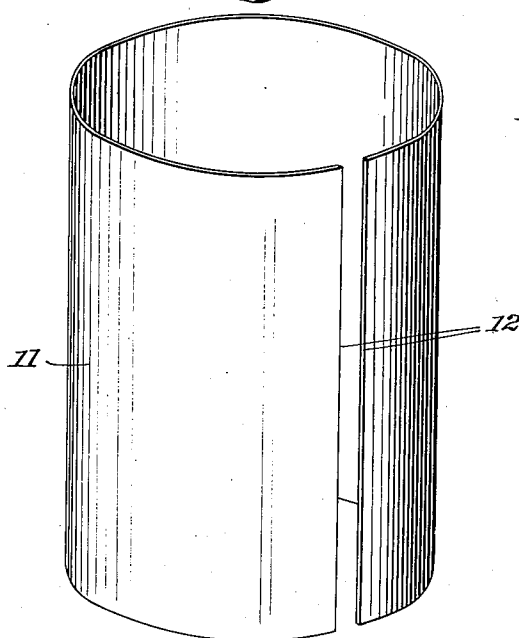


Fig. 8.

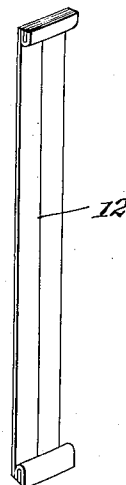


Fig. 9.

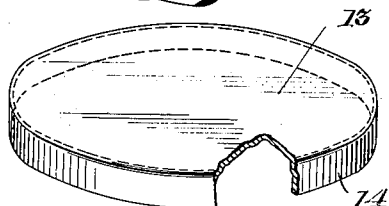
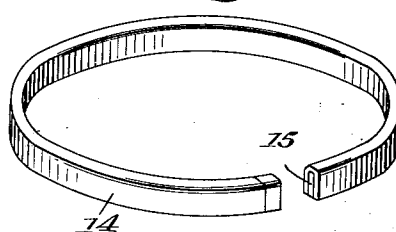


Fig. 10.



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METHOD OF DISMANTLING CONTAINERS

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Application December 12, 1938, Serial No. 245,079

1 Claim. (Cl. 164—17)

This invention relates to new and useful improvements in a method of dismantling containers and has particular reference to metallic containers of the conventional cylindrical, oblong, or rectangular shape.

The primary object of the invention is to cut the can, or container, in such a manner that the material of the container can be readily reclaimed.

Another object of the invention is to cut the can, or container, in such a manner that the greatest portion of the parts that make up the original article can be saved.

A further object of the invention is to cut the can, or container, in such a manner that the ends, or discs, will be retained in the body to give structural stiffness to it for subsequent operations.

Still another object of the invention is to reduce the number of operations now required to dismantle a can, or container.

Further and more specific objects, features and advantages will more clearly appear from a consideration of the specification hereinafter when taken in connection with the accompanying drawings which form part of the specification and which illustrate a present preferred application of the invention.

Fig. 1 represents a perspective view of a conventional cylindrical container.

Fig. 2 represents an enlarged view of the container with parts in section showing the location at which the end seam is severed.

Fig. 3 is a partial sectional view showing the end of the container after the transversal seam has been severed.

Fig. 4 is a sectional view showing the severed portion of the end transversal seam.

Fig. 5 is a perspective view of the severed disc end of the container.

Fig. 6 is a perspective view of the upper transversal seam after the edge severance and the longitudinal cut through it has been made.

Fig. 7 is a perspective view of the body of the container remaining after the transversal and the longitudinal severances have been made.

Fig. 8 is a perspective view of the portion of the longitudinal seam which has been severed from the body.

Fig. 9 is a perspective view of the severed disc end from the bottom of the container; and

Fig. 10 is a perspective view of the bottom transversal seam after the edge severance and the longitudinal cut has been made.

In describing the drawings in detail, it will be noted that I have provided a cylindrical can, or

container, body portion 11 which is usually formed of flat material bent to shape and joined along adjacent edges 12 to form the longitudinal seam which is welded, soldered, or otherwise formed.

The upper and lower ends of the container are closed by means of shallow cup-like plates, or discs, 13 each having flanges 14 which are bent over in conjunction with the edges 15 of the body portion 11 to form a folded, or double, end transversal seam which is unsoldered, but sometimes made water-tight by the use of some suitable material such as rubber cement. It will be noticed from Fig. 2 that practically all of this folded end seam lies above and outside of the plane of the main portion of the end discs 13.

In the usual method of partially dismantling a container so that it can be used again, a circumferential cut is usually made at point B, thereby, liberating the end 13 with the entire transversal seam 14 and 15. The top of the body portion 11 of the opened container is, thereby, lower which does not readily permit another flange 15 to be rolled over again, so that it can be closed with another end 13.

In the usual method of completely dismantling a container, the ends 13 are cut out along a circular line indicated by the line A, and the body is cut along a circumferential line indicated by line B in Figs. 1 and 2. These two operations at both ends of the container are necessary before the longitudinal cut 12 through the body 11 can be made. Thereby, five operations are required for completely dismantling the containers.

It will be seen that when the ends 13 are cut from the body 11 along line B, the body portion is left without a stiffening support for later operations in cutting out the longitudinal seam along the edges 12. Also, it will be observed that these cuttings involve a waste of the material of the container which is unnecessary.

I have, therefore, conceived the method of dismantling a container by cutting the transversal seam across the line of fold outside the plane of the face of the end disc as indicated by line C, in Fig. 2. This one operation breaks the seam without necessarily separating the end disc 13 from the body portion 11 and leaves the remaining portion of the transversal seam 14 and 15 adhering to the body 11.

It will, therefore, be understood that after the folded transversal seam, made up of the outside edge of the disc 14 and the end flange of the body 15 is cut, the end discs 13 and the remainder of

the transversal seam still do and remain in position to stiffen and reinforce the body portion 11 until after the longitudinal seam 12 in the body portion 11 has been cut out.

5 It will also be understood that the remaining portion of the transversal seam 14 and 15 on the body 11 will spring open as soon as the longitudinal cut is made which will also definitely release the end disc 13.

10 It will be further understood that the operation at each end, along line C, together with the longitudinal cut make a total of three operations for completely dismantling a container.

15 According to this method, therefore, it will be seen that by cutting the transversal seam on the line C instead of cutting it away on line B, I save the maximum of the material of the body portion of the container as well as the ends. It will also

20 be seen that I achieve the more efficient cutting of the container since while the longitudinal seam is being severed from the body I have retained the end discs and the remaining portions of the transversal seams to give the body portion

the necessary and desirable support and stiffening.

Furthermore, it will be seen that this method of completely dismantling a container that I have reduced the number of operations.

5 While the invention has been described in detail and with respect to a present preferred form thereof, it is not to be limited to such details and applications since many changes and modifications may be made in the invention without departing from the spirit and scope of the invention in its broadest aspects. Hence, it is desired to cover any and all applications of the invention which may come within the language, or scope, of the appended claim.

What I claim is:

10 The method of dismantling a sheet metal container which comprises cutting through the end seams in a plane parallel to but outside of the plane of the end members, holding the container 20 with the end members supporting the side wall member and cutting away the longitudinal side seam while so holding the container.

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